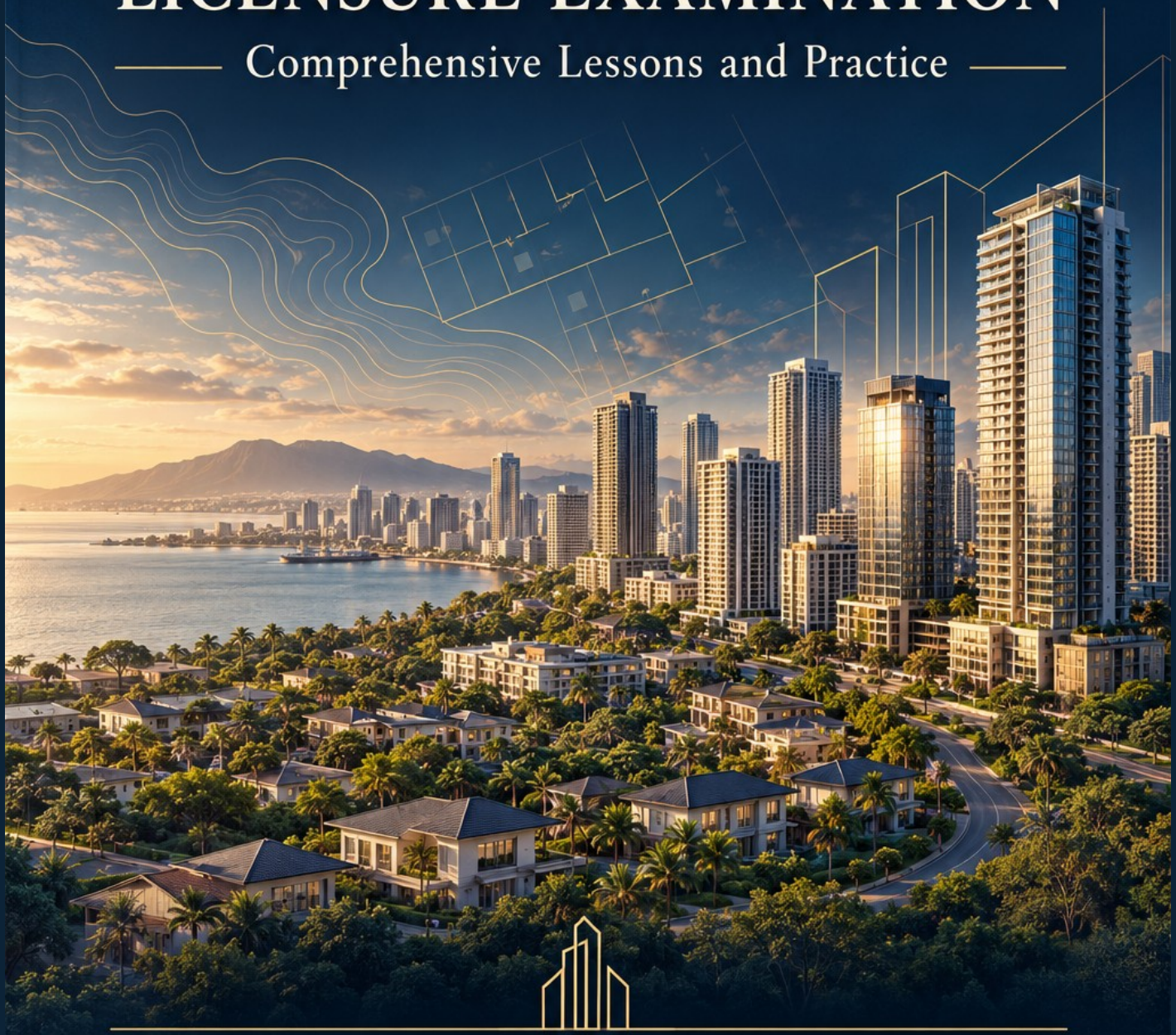
2027 PREPARATION EDITION

REALEX

REAL ESTATE APPRAISER LICENSURE EXAMINATION

Comprehensive Lessons and Practice



36 LESSONS • WORKED CASES • PRACTICE QUESTIONS

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Russell Famisaran

Independent study edition

Copyright and edition notice

REALEX
Real Estate Appraiser Licensure Examination
Comprehensive Lessons and Practice
2027 Preparation Edition

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The 2027 label identifies the preparation edition. Each lesson's source notes and research date govern its dated content. The front matter was prepared on 13 October 2026; that date does not represent a new source audit of every chapter. Lesson 35 preserves its own fixed research cutoff.

Numerical cases use stated teaching assumptions. They do not establish actual market rates, adopted local tax inputs, property permissions or a signed professional opinion. For an actual assignment or examination, use the applicable authoritative records and instructions.

Preface

A useful appraisal answer explains what is being valued, why the evidence is relevant and how the calculation supports the conclusion. The same property can yield different amounts under different interests, dates, conditions or purposes. Learning to preserve those distinctions is as important as learning the formula.

REALEX is organized around that task. The opening lessons establish property rights, value concepts, appraisal principles, geography, economics and quantitative reasoning. Standards and professional responsibilities then connect those foundations to an assignment. The legal and tax lessons develop the framework needed to understand an interest and its constraints. Later lessons apply the approaches, examine specialized assets and bring the results into reports, review and integrated cases.

The 36-lesson sequence is intended to be read progressively and revisited selectively. A learner studying income capitalization may need to return to leased interests, mathematics or scope. A learner reviewing a tax case may need to distinguish market value, assessed amount and the final liability. The contents and curriculum roadmap provide those routes without replacing the legal or technical evidence required by the problem.

Worked cases expose the setup and reasoning behind a result. Worksheets give space to rebuild the analysis before checking the model response. Practice questions test both knowledge and the ability to detect a wrong premise, an omitted condition or a misleading calculation. Their value lies in the explanation and the error they reveal, rather than in memorizing an answer letter.

The final lesson uses residential, rental, development, machinery and LGU assessment files to bring these skills together. It includes timed forms, report exercises and competency checks. Completing the reading sequence is one milestone; being able to defend a result under changed facts is another.

Legal rules, standards, administrative processes and official data can change. This edition keeps source status and relevant dates visible. A proposal is treated as a proposal, a supplied scenario remains conditional, and a missing material fact remains an investigation task. These habits support both examination preparation and responsible professional reasoning.

Use this book actively. Read with a question in mind, calculate with the assumptions visible and review an error until you can explain its cause. The goal is a result that another competent reader can trace and understand.

Russell Famisaran
13 October 2026

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Lessons 1 to 12

Lesson	Title
1	Property rights and appraisal assignments
2	Value concepts and market behaviour
3	Appraisal principles and highest and best use
4	Geography location and environmental evidence
5	Real estate economics finance and investment
6	Appraisal mathematics and time value of money
7	Statistics and comparable evidence
8	PVS and IVS standards architecture
9	Assignment scope and bases of value
10	Ethics independence and responsibilities
11	RESA licensure and professional practice requirements
12	Land registration title evidence and tenure

Lesson numbers are the navigation references here. Chapter page references are set in the assembled volume.

Contents continued

Lessons 13 to 24

Lesson	Title
13	Family property contracts and succession
14	Subdivision housing and buyer protection
15	Condominium interests and REIT structures
16	Agrarian law land classification and conversion
17	Planning building controls and site constraints
18	Local property assessment and tax principles
19	National real property transaction taxes
20	RPVARA purposes institutions and standards
21	RPVARA SMV preparation review and application
22	RPVARA transition relief and data governance
23	Inspection valuation research and workfiles
24	Sales comparison approach

Contents continued

Lessons 25 to 36

Lesson	Title
25	Cost approach depreciation and site value
26	Income capitalization and leased interests
27	Discounted cash flow and development property
28	Approach selection reconciliation and uncertainty
29	Machinery equipment and infrastructure
30	Specialized property and interest valuation
31	Mass appraisal and assessment model quality
32	Applied assessment taxation and remedies
33	GIS survey plotting and spatial data
34	Appraisal reports documentation and review
35	Current developments and dated legal updates
36	Integrated appraisal cases and examination readiness

How to use this book

Begin with the defined question

Before selecting a method, identify the interest, intended use, date and condition. Read the learning goals and prerequisites, then ask what the lesson should enable you to explain or calculate. The chapter's title is an organizing label; the task is the actual question being answered.

On the first reading, follow the explanation and the meaning of the inputs. On the second, close the solution and rebuild the worked case. Write units and assumptions beside the equation. A number copied without its premise is not a completed exercise.

Use the lesson components deliberately

Component	Your task
Learning goals	Turn each goal into a question you can answer
Theory and source notes	Explain the concept and identify its authority or evidence
Worked cases	Rebuild the setup and calculation before checking the solution
Worksheet	Write a complete response with assumptions and interpretation
Practice test	Choose one best answer and record uncertain or guessed items
Explained answers	Identify why the correct proposition fits and your error occurred
Terms and formulas	Recall meaning units inclusions and limits
Capstone and timed forms	Demonstrate integration and transfer under chosen time conditions

Keep three study records

Use a main notebook for concepts and case reasoning, a formula record for models with their units and conditions, and an error log for incorrect or uncertain answers. Record the lesson and item number so each note can be traced. An error log should preserve the cause and correction, not merely the answer letter.

After checking an exercise, change one input or condition and solve it again. Explain what changed and what remains valid. Use earlier lessons to repair a specific gap, then return to the original inquiry. This turns revision into evidence of understanding rather than repeated exposure to familiar pages.

Curriculum roadmap

The following reading stages preserve the lesson sequence. They are study groupings, not additional official examination subjects or topic weights.

Stage	Lessons	Competency developed
Foundations	1–7	Rights value principles location finance mathematics and evidence
Standards and professional practice	8–11	Standards architecture scope ethics and professional requirements
Legal and tax context	12–19	Title interests housing agrarian planning and taxation
Valuation reform	20–22	RPVARA institutions SMV application transition and data
Research and approaches	23–28	Workfiles sales cost income DCF reconciliation and uncertainty
Applied valuation and reporting	29–34	Machinery specialized assets mass appraisal tax GIS and reports
Updates and integration	35–36	Dated changes integrated cases and readiness

Relationship to the examined subject areas

The checked PRC program for the 7 July 2026 examination identifies Fundamentals of Real Estate Appraisal and Professional Appraisal Practice, weighted 50% each. This historical program supplies the subject framework used to organize the curriculum; it does not determine a future examination's schedule or instructions. [FM1]

Foundational principles, standards, geography, finance and property laws support the Fundamentals area. Research, approaches, practical mathematics, reports, machinery, cases, applied taxation, GIS and current events support Professional Appraisal Practice. Several lessons contribute to both. The roadmap does not assign invented percentages to individual topics.

Lesson 36 integrates these competencies rather than creating a separate licensing subject. Its case files require a defined interest, traceable evidence, an appropriate model, a checked calculation and a supported conclusion. Use that sequence when deciding what to review next.

Study and revision system

Choose a pace you can sustain. Keep the lesson order for the first pass, then use the error log to decide where the next pass should focus. Record actual completion and performance rather than marking a lesson mastered after reading it once.

Three passes through the material

Pass	Main work	Evidence of progress
Understand	Read theory and trace the worked examples	Explain the concept and why the model applies
Rebuild	Solve cases worksheets and questions with solutions hidden	Correct setup result units and conclusion
Transfer	Change data or premise and revisit weak competencies	Correct reasoning on an unfamiliar variation

A practical study session

Start by recalling the previous lesson without opening the answer. Identify one concept and one calculation that require repair. Study the next defined topic, then attempt a worked problem with the solution covered. Check the result and write the reason for any discrepancy. Finish by noting the next concrete task.

Separate reading, open-book practice and closed-book attempts in your records. A correct answer found with the source open is useful learning evidence, but it is not the same as a timed independent response. Likewise, a correct guessed answer should remain flagged until its reasoning is explained.

Revisit the cause of the error

Classify the issue as knowledge, scope, evidence, sign, unit, timing, arithmetic, interpretation or reporting. A wrong comparable adjustment calls for a different repair from an unsupported approval claim. Return to the relevant lesson, rebuild the reasoning and test it with changed facts.

For a calculation, check the input, base, period and order of operations before repeating calculator entry. For a legal or standards question, check the operative source, date and conditions. For a report, check whether the evidence actually supports the statement. Keep the original attempt and correction together so improvement can be reviewed.

Practice and assessment guide

Answer the proposition rather than the letter

Each multiple-choice item asks for the best answer within its stated facts. Record the lesson and item number and mark any answer you selected without a defensible explanation. When reviewing, write the correct proposition in words. An answer letter can change when options are reordered; the proposition and reasoning identify what you learned.

For a simple one-point practice set, percentage correct equals correct answers divided by attempted scored items, multiplied by 100. For example, 15 correct out of 20 is 75%. Record unanswered items and the scoring convention. Do not compare sets with different sizes or assistance conditions as though they were identical tests.

Read the result at competency level

An overall score can conceal a weak topic. Record errors by competency and examine whether the same mistake appears across cases. A small number of questions provides only a coarse diagnostic. Use a fresh case or changed-input exercise before concluding that a weakness has been resolved.

Worked and report exercises should be assessed for scope and evidence, model selection, calculation, interpretation and communication. A correct sum does not cure an unsupported legal premise or invented certification. Lesson 36 supplies an original rubric, timed forms and internal readiness targets for these judgments.

Keep official ratings separate

RA 9646 section 15 states a required average of at least 75% in all subjects, with no subject rating below 50%. Those statutory conditions are separate from this book’s practice percentages and internal learning targets. Meeting a teaching target is not an official examination result or a complete licensing determination. [FM2]

Use the program and admission instructions applicable to your examination for the required schedule, procedures and permitted equipment. This book does not certify a calculator model’s admissibility. Practise with the equipment you are authorized to use, and check calculations by reasoning as well as keystrokes.

Notation and calculation conventions

A symbol is meaningful only with its units, period and model. A lesson may define a different convention for a particular case; the stated case convention governs that exercise.

Notation	Meaning or use
PHP and ₱	Philippine pesos; SAR is used only where a case specifies Saudi riyals
m	Million in a stated currency or amount; do not confuse it with meters
sqm or m^2	Square meters; distinguish site area from floor or saleable area
%	Percentage; convert 8% to 0.08 for numerical operations
Percentage points	Arithmetic difference between two percentage rates
t	Specified period number in a dated cash-flow model
r	Discount rate per period, compatible with the defined cash flow
R or cap rate	Capitalization rate under the case's income convention
PV and FV	Present value and future value for specified dates and rates
NOI	Defined property net operating income under stated expense inclusions
AL	Assessment level; applied before the separately specified levy
≈	Approximately equal; usually indicates a displayed rounded result

Calculation discipline

Retain precision through intermediate calculations and round the final output as directed. A displayed rounded subtotal may differ slightly from a full-precision calculation. Show enough working for another reader to reconstruct the result.

Identify whether an amount is a total, a unit rate, an annual flow or a present-value allowance. Do not discount an allowance already stated as a valuation-date present value. Use the stated base for successive percentages and keep cash-flow timing consistent. A sensitivity result is not automatically a final value opinion, confidence interval or certified adjustment.

Abbreviations

These abbreviations support navigation and interpretation. They do not replace the definitions or applicable source provisions in each lesson.

Term	Meaning	Term	Meaning
AL	Assessment level	IVSC	International Valuation Standards Council
BIR	Bureau of Internal Revenue	LGU	Local government unit
BLGF	Bureau of Local Government Finance	LTS or LS	License to sell
BP	Batas Pambansa	NAMRIA	National Mapping and Resource Information Authority
BSP	Bangko Sentral ng Pilipinas	NOI	Net operating income
CLUP	Comprehensive Land Use Plan	PD	Presidential Decree
CR	Certificate of Registration; context determines the record	PGI	Potential gross income
DAR	Department of Agrarian Reform	PRC	Professional Regulation Commission
DCF	Discounted cash flow	PSA	Philippine Statistics Authority
DHSUD	Department of Human Settlements and Urban Development	PV	Present value
DOF	Department of Finance	PVS	Philippine Valuation Standards
EGI	Effective gross income	RA	Republic Act
FV	Future value	RESA	Real Estate Service Act of the Philippines
GDV	Gross development value	RPPI	Residential Property Price Index
GIS	Geographic Information System	RPVARA	Real Property Valuation and Assessment Reform Act
HBU	Highest and best use	SEC	Securities and Exchange Commission
IRR	Implementing rules and regulations; also internal rate of return in finance	SEF	Special Education Fund
IVS	International Valuation Standards	SMV	Schedule of Market Values

Read IRR in context: a legal procedure and a financial return metric are different concepts. Read CR in context: a professional registration document and a project registration document are different records.

Sources and currency of information

Source notes belong to the proposition they support. Use the named statute, regulation, standard, official dataset or property record for the question at hand. The issuing authority, relevant date, scope and conditions matter more than the recency of a filename.

Distinguish a law or operative rule from an explanatory announcement, a proposal, a statistical release or a service-access page. A proposal does not become operative through repetition. A new data release can change a calculation without establishing a particular property's value. Chapter source notes identify the checks and limits relevant to the lesson.

The book's research dates are not a perpetual assurance of currency. For a date-sensitive answer, verify the applicable edition or instrument and its transition provisions. Preserve historical correctness when a later rule supersedes an earlier one. Record an original error as a correction, rather than describing it as a new policy change. Lesson 35 explains that distinction and the revision record.

The printed book and any later digital release should retain distinct edition and content-version records. Use the question version attached to an attempt; do not silently replace its premise or answer. No live digital service or update schedule is promised by this front matter.

Source references for these preliminary pages

FM1 PRC examination program

7 July 2026 program: subject coverage and 50/50 subject weights. Used as the historical organizing framework.

https://www.prc.gov.ph/sites/default/files/REA%20exam%20program%202026.pdf

FM2 RA 9646

Section 15: numerical examination rating requirements. Book practice targets remain separate.

https://lawphil.net/statutes/repacts/ra2009/ra_9646_2009.html

Learning record

Use this page to plan and review your study. Keep detailed calculations and error records in your notebook. Completion of the lesson sequence and demonstrated competency are recorded separately.

Name _____

Study period _____

First reading started _____ First reading completed _____

Closed-book practice started _____ Capstone attempted _____

Reading stage	Completed lessons	Weak competency and next task
Foundations 1–7	_____	_____
Standards and practice 8–11	_____	_____
Legal and tax context 12–19	_____	_____
Valuation reform 20–22	_____	_____
Research and approaches 23–28	_____	_____
Applied work 29–34	_____	_____
Updates and integration 35–36	_____	_____

Final review

Latest scored attempt and version _____

Unresolved premise or evidence issue _____

Targeted lessons and repair task _____

Fresh retest and verified explanation _____

Next review date and specific action _____

Before an actual assignment or examination, verify the authoritative requirements relevant to its date and purpose. Record the evidence that closes a weakness rather than relying on a completion tick alone.

REALEX

Lesson 1

Property Rights and Appraisal Assignments

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

Start with the right question: What interest am I being asked to value?

A property can have one address, one building and several different interests. The owner, tenant, lender and coowner may each have a stake in it. A reliable appraisal begins by distinguishing those interests and defining the assignment before calculating a value.

This lesson explains the legal foundation in plain language and then applies it to appraisal decisions. Read the explanations, work through the cases, and answer the practice questions before checking the solutions. All teaching cases and questions in this lesson are newly authored.

Your learning goals

- Distinguish the physical real estate from the rights and interests associated with it.
- Explain how ownership, a lease, usufruct, an easement, coownership and a mortgage affect an appraisal problem.
- Identify what a title, deed, lease, survey, tax record and site inspection can establish.
- Define the client, intended users, intended use, property interest, basis of value and valuation date.
- Recognize when missing evidence or conflicting documents require clarification, specialist advice or a revised scope.
- Write a clear assignment description and defend it in an examination case.

Study plan: Allow two reading sessions of about 60 minutes each, followed by 45–60 minutes for the cases and practice test. These are study estimates, not PRC examination timings.

1 The property and the interest

The building you see is only the beginning

Imagine a small commercial building. One person owns the land and building. A retailer leases the ground floor. A bank holds a mortgage. The neighboring lot has a documented access right over a passage along the side. The same physical property supports several different legal and economic relationships.

If you measure the floor area and compare nearby sales without asking about those relationships, you may value the wrong subject. The building's dimensions do not tell you who can occupy it, who receives rent, how long that arrangement lasts, or whether a purchaser can use every part of the site as intended.

Philippine legislation distinguishes the physical real estate from the rights and benefits connected with it. RA 9646, section 3, and RA 12001, section 4, provide the legal starting point for this distinction. In this lesson, "real estate" refers to the land and physical improvements. "Property interest" refers to the particular rights being valued. [1, sec. 3; 2, sec. 4]

The practical rule is simple: identify both the asset and the interest. "A 500-square-meter lot with a warehouse" describes the physical subject. "The owner's interest in that lot and warehouse, subject to the existing lease and documented access easement" describes the appraisal subject more precisely.

Question	Physical description	Interest description
What is it?	Lot, building, improvements and included equipment.	Ownership, use, income, security or another defined right.
What evidence helps?	Survey, plans, measurements, photographs and inspection.	Title, deed, lease, mortgage, easement instrument and relevant law.
What can go wrong?	Wrong area or incorrect improvements included.	Wrong holder, duration, restrictions or interest valued.

Why an interest can change the value

Consider two otherwise similar shops. A buyer of the first can occupy it shortly after purchase. The second is subject to a binding lease for several remaining years at rent below the current market level. The buyer's income and ability to occupy the second shop may differ. The appraisal must investigate that difference rather than assume that identical floor areas mean identical interests and values.

A legal restriction has an economic effect only through the circumstances of the property and the relevant market. Some restrictions materially reduce usable space or income. Some have little effect because they do not interfere with the likely use. A right of access can increase the usefulness of a previously inaccessible property. Do not replace that analysis with a standard percentage adjustment.

Use three questions throughout this chapter: Who holds the right? What does it allow or require? For how long? Then ask how market participants would respond to the answers. These questions connect property law with appraisal judgment.

A brief note on terminology

You may encounter “fee simple,” “leased fee” and “leasehold” in international appraisal literature. For Philippine assignments, use a clear description grounded in the actual documents and applicable law. This lesson generally uses “owner’s interest subject to a lease” and “lessee’s interest.” These descriptions help avoid treating foreign estate terminology as an automatic classification under Philippine land registration law.

The “bundle of rights” is a teaching metaphor: several powers and benefits can be held together or separated. It is useful for understanding an assignment, but it is not a substitute for the Civil Code, the title or the instrument that creates the interest.

2 Ownership and its limits

What ownership allows

The Civil Code recognizes ownership of things and rights. It gives an owner the power to enjoy and dispose of a thing within legal limits and a right to recover it from a holder or possessor. An owner’s use must also respect the rights of others. These are the central legal propositions for this lesson. [3, arts. 427–428 and 431]

For appraisal purposes, enjoyment may appear as occupation, rental income or another benefit from the property. Disposal may appear as a sale or another permitted transfer. The important appraisal question is how much of that enjoyment and disposal is available to the holder of the interest being valued.

For example, an owner may hold title to a shop but have committed the shop to a tenant under a lease. Ownership has not disappeared. The current enjoyment of the property has been arranged through the lease. The appraisal should investigate the owner’s rent, responsibilities and future ability to recover use when the lease ends.

Ownership also does not make every proposed development legally possible. Land-use controls, applicable restrictions and the rights of other persons can affect the property. A client’s desired development is therefore a proposal to investigate, not evidence of legal permission.

Ownership is different from possession

Possession concerns holding or controlling the property; ownership concerns the legal interest. A tenant can occupy a shop without owning it. An owner can retain an interest while a tenant occupies it. Seeing a person on the premises does not, by itself, establish ownership.

This distinction matters during inspection. Suppose the person occupying a warehouse says, “This is my building.” Ask whether that statement means ownership of the land and building, ownership of removable equipment, a lease, or simply operation of the business. Record the statement accurately, obtain supporting documents and reconcile it with the assignment.

The appraiser should not use an inspection interview to settle a disputed title. The useful response is to identify the unresolved issue and obtain adequate evidence or appropriate legal clarification before reporting a conclusion that depends on it. Professional judgment includes knowing which question needs another professional’s expertise.

Rights may be limited without disappearing

A title holder can still face limits on use. A right of way may constrain a passage, a lease may commit space to a tenant, and a public regulation may constrain development. Describe the restriction precisely: its location, duration, permitted activities, responsibilities and relevance to the appraisal.

Avoid vague statements such as “the property is encumbered, so deduct 20 percent.” That statement does not explain the right, the market response or the evidence. A stronger analysis states that a documented access corridor limits building on a defined strip and examines how that affects the proposed use, site layout and comparable transactions.

Examination habit: When a question mentions ownership, scan the facts for a competing right, a time limit or an express exclusion. Those facts may determine the subject of the appraisal even when the property’s address and dimensions are unchanged.

3 Land improvements and movable assets

Identify what is included

An assignment should state whether it covers land alone, land and buildings, particular improvements, machinery, furniture, inventory or another asset group. Items can occupy the same premises without belonging to the same owner or valuation subject.

The Civil Code distinguishes immovable and movable property. Article 415 includes land and attached constructions and also sets specific conditions for other categories. Attachment is relevant, but it is not a complete classification test for every item. Article 417 also treats company shares as personal property even when the company owns real estate. [3, arts. 414–417]

Use the legal provision that applies to the item. For machinery, article 415(5) includes conditions concerning the owner’s intention and the direct needs of the industry or works. Do not assume that every machine inside a factory is immovable. For a taxation assignment, examine the relevant statutory definition and assessment rules as well; a Civil Code classification alone does not answer every tax question. [3, art. 415(5); 2, sec. 4]

The lesson’s appraisal task is to identify the issue and gather evidence. The detailed treatment of machinery and equipment belongs in a later lesson. Here, learn to avoid silently including assets that the engagement excludes or counting an asset twice.

A practical inclusion schedule

Item at the property	Question to resolve	Assignment action
Warehouse shell	Does the interest include the building as well as the land?	Describe the building and supporting ownership evidence.
Tenant installed shelving	Who owns it and what does the lease say about removal?	Document inclusion or exclusion; do not infer ownership from location.
Industrial machinery	Which legal and valuation classification applies?	Obtain an asset schedule and relevant technical and legal information.

Item at the property	Question to resolve	Assignment action
Goods held for sale	Is inventory within the engagement?	Exclude from a land and building assignment unless expressly included.
Shares in the owning company	Is the subject the shares or the underlying real estate?	Treat the requested subject as a separate assignment problem.

A buyer of a company's shares is not automatically receiving a direct transfer of the company's land in the same form as a purchaser of the property. The entity may also hold debts and other assets. An appraisal of the underlying real estate can be an input to a broader business or share valuation; it is not automatically the value of the shares.

Good reporting makes inclusions visible. For example: "The subject comprises the identified ownership interest in the land and warehouse. The tenant's movable stock and removable equipment are excluded." State the exclusions because they define the result, not merely because they shorten the inspection.

4 Interests you must distinguish

A lease separates current use from ownership

In a lease of things, one party grants use or enjoyment to another for a price and a period. The lease instrument is therefore central evidence of who can use the premises and under what terms. [3, art. 1643]

An owner's interest subject to a lease may include current contractual income, expenses retained by the owner and the future benefit of recovering use or reletting the premises. A lessee's interest concerns the benefits and obligations available to the tenant during the arrangement. They relate to the same property but are different appraisal subjects.

Read more than the rent amount. Check the premises covered, commencement and expiry, remaining term at the valuation date, renewal provisions, rent adjustments, repair obligations, permitted use, assignment or subletting conditions, and treatment of improvements. A renewal option should not be treated as an unconditional extra term without reading its conditions.

Contract rent is the rent agreed under the lease. Market rent is an appraisal estimate of rent available under relevant market conditions and terms. A difference between them can affect economic benefits. It does not produce a complete interest valuation by itself: transferability, expenses, payment risk, duration and the relevant basis of value must also be considered.

For example, a tenant paying below market rent may receive a useful occupational advantage. Whether another party can acquire that advantage, and at what price, depends on the terms and evidence. A favorable rent does not automatically make a freely transferable asset.

Usufruct separates enjoyment from the remaining ownership

Usufruct generally permits enjoyment of another person's property while requiring preservation of its form and substance, subject to the constituting title or law. The creating instrument governs the rights and duties, with Civil Code rules applying where appropriate. [3, arts. 562 and 565]

This helps explain why the person receiving the property's current benefits may differ from the person holding the remaining ownership interest. For appraisal, identify the duration, benefits, obligations and event that ends the arrangement. A right lasting for a stated term presents a different timing problem from a right whose duration depends on a person's life.

Suppose an instrument gives Elena the right to enjoy an orchard for eight remaining years while Ramon holds the remaining ownership interest. An appraisal of Elena's defined interest should examine the benefits and obligations available during those years. It should not silently assign her the entire unrestricted ownership interest in the orchard.

Do not automatically equate usufruct with a lease. The creating instrument and applicable law determine its character. In a case problem, the correct first move is to identify the expressly stated right and read the terms that define it.

An easement concerns a defined benefit or burden

An easement can burden one immovable for the benefit of another immovable belonging to a different owner. In that arrangement, the benefiting property is the dominant estate and the burdened property is the servient estate. The Code also recognizes easements for a community or persons, so the two-estate description does not cover every situation. [3, arts. 613–614]

An access easement might let a neighboring owner pass across a defined part of a site. The burdened owner does not necessarily lose ownership of the strip. The appraisal needs the actual extent and terms of the right: where passage is allowed, what users and vehicles are allowed, whether structures are prohibited and who maintains the route.

Measure the effect on the property as a whole. A narrow corridor in an otherwise unusable setback could have a modest effect. A corridor crossing the only feasible loading area could have a much greater effect. The same area percentage can produce different economic consequences.

Also examine the benefit to the dominant property. Documented access can make a site more useful. The existence, continuity and adequacy of that access require evidence; a path visible during inspection is not proof of a permanent legal right.

Coownership is an undivided interest

A coowner's share is an interest in the commonly held property. It is not automatically an exclusive physical portion of the site. Article 493 recognizes a coowner's ability to alienate, assign or mortgage that share, subject to its stated limits. [3, art. 493]

If four persons each hold a 25 percent undivided share in a lot, one person's share is not necessarily the front quarter or a surveyed 100-square-meter corner. Before a separate portion is treated as the subject, obtain evidence of the relevant partition, subdivision and legal arrangements.

A simple share calculation can establish a reference amount. If the whole property is valued at PHP 12 million, a 25 percent proportion is PHP 3 million. That arithmetic does not establish the market value of the fractional interest. A purchaser may face differences in control, marketability, use and the arrangements among coowners. Analyze those circumstances; neither a discount nor a premium is automatic.

Do not assume that a coowner has authority to dispose of the whole property merely because that person can transfer an individual share. Identify the interest offered, the person's capacity and the supporting documents. An appraisal of the whole and an appraisal of one undivided share should be described separately.

A mortgage secures an obligation

A mortgage is a security arrangement over the relevant property or rights. The Civil Code addresses its subject, registration and the relationship between the property and the secured obligation. The mortgage does not, by its mere existence, make the lender the owner. [3, arts. 2124–2126]

Distinguish three questions: What is the property interest worth? What amount is owed? What security or recovery interest is being considered? A loan balance is not automatically a reduction in the market value of the underlying property interest. It is important to financing and to an owner's net position, but those are different calculations.

If a property interest has an independently supported value of PHP 8 million and outstanding debt of PHP 3 million, the simple difference is PHP 5 million. Label it an illustrative net amount before other costs and obligations. It is not a fresh market valuation of the property and does not determine the market value of the lender's security.

For a lending assignment, clarify the bank's requested subject and reporting requirements. Investigate mortgage documentation and other relevant claims as the assignment requires. Do not promise a loan amount or treat the appraiser's conclusion as a guarantee that every legal and credit issue has been resolved.

Interest	What you must identify	Typical appraisal risk
Ownership	Extent of ownership and existing limits.	Assuming unrestricted use from an address alone.
Owner subject to lease	Rent, expenses, term and future benefits.	Ignoring a binding lease in comparable analysis.
Lessee interest	Occupational benefits, obligations and transfer conditions.	Treating favorable rent as automatically transferable value.
Usufruct	Creating instrument, duration and enjoyment.	Valuing the entire ownership for the beneficiary.
Easement	Location, permitted use and benefiting or burdened interest.	Equating corridor area with percentage loss in value.
Undivided share	Share, control and coownership arrangements.	Calling an undivided interest a specific corner lot.
Mortgage related interest	Security terms, obligation and requested subject.	Confusing debt with the property value.

5 Read the evidence together

A title is essential evidence but not the entire investigation

Obtain a current, appropriate title record and read its property description and annotations. Confirm that it corresponds to the subject in the assignment. A copy for a neighboring lot, a superseded document or an incomplete set of pages can lead to a serious identification error.

Under PD 1529, section 44, registered land remains subject to specified exceptions as well as relevant annotations. An absence of annotations therefore does not prove that every restriction, public requirement or competing issue is absent. [4, sec. 44]

Keep the legal record and physical inspection connected. A title may identify the parcel, while the site inspection reveals the actual occupants and improvements. A survey may show boundaries, while an access instrument addresses passage rights. No single source automatically answers every question about the appraisal subject.

Use careful language in notes. “No lease was provided” is a statement about the documents received. “The property is unleased” is a conclusion about its status. You need adequate evidence for the second statement. The same distinction applies to access, occupancy and restrictions.

What each source can contribute

Evidence	Useful information	Limit to remember
Title and annotations	Registered parcel, holder and recorded instruments or notices.	Must be current and complete; statutory exceptions and other relevant inquiries remain.
Deed or creating instrument	Interest transferred or created and relevant terms.	A document must be interpreted in its legal and registration context.
Lease and amendments	Space, rent, duration, duties and options.	The original lease alone may omit later changes.
Survey and approved plans	Dimensions, boundaries and planned improvements.	Paper plans may differ from the actual site; the appraiser is not substituting for a surveyor.
Tax declaration and payment records	Assessment description, declared information and tax history.	Their purpose differs from a title record and a market appraisal.
Inspection and interviews	Actual condition, occupancy, access and visible use.	Observation and oral statements do not establish every legal right.
Official land use and permit records	Relevant development controls and permissions.	Check applicability, currency and the particular proposed use.

Resolve inconsistencies before they control the result

Suppose the title identifies a 600-square-meter parcel, the client’s sketch shows 650 square meters, and a fence encloses only 560 square meters. Do not average the areas or choose the largest because the client

prefers it. Identify what each figure represents, request the relevant survey evidence, and seek qualified clarification if necessary.

Suppose the client describes a warehouse as vacant, but the inspection reveals an operating tenant. Obtain the lease or other occupancy evidence and clarify whether the appraisal concerns the actual interest or a specifically defined alternative premise. A statement in the report cannot repair an assignment that was never properly understood.

In an examination scenario, missing material evidence often makes “clarify and investigate” the best next step. It does not mean an appraiser must abandon every assignment with imperfect information. It means the depth of work and any assumptions must support the intended use and be clearly communicated.

6 Define the appraisal assignment

Begin with the decision the appraisal will support

A request to “appraise the property” is incomplete. Ask what decision the client needs to make and who will use the result. A property acquisition, a lending decision and a taxation exercise can involve different instructions, legal context and reporting needs.

RA 9646 describes appraisal services as culminating in an acceptable written report. The report must therefore communicate the subject and conclusion clearly enough for its intended function. [1, sec. 3(g)(2)] The framework below is an original study aid for planning that work.

The official BLGF third-edition PVS publication identifies IVS 101 as Scope of Work. Its opening provisions explain agreement on the engagement terms and their suitability for the intended use. Those terms address the assets or liabilities, the reason for the valuation and the parties’ responsibilities. This supports defining the problem before performing the analysis. [6, IVS 101, paras. 10.1–10.5]

Assignment element	Question to answer	Example
Client	Who engages the appraiser?	Harbor Commercial Corporation.
Intended users	Who is identified to rely on the result?	The client and the named bank credit committee.
Intended use	Which decision does it support?	A proposed secured lending decision.
Asset and interest	Exactly what is being valued?	Owner interest in the identified lot and warehouse, subject to its lease.
Basis of value	What definition and premise govern the conclusion?	The selected market value basis, stated and applied consistently.
Valuation date	At what date does the opinion apply?	30 September 2026.
Scope and evidence	What work and investigation are needed?	Inspection, lease review, title review and relevant market research.
Assumptions and limits	Which unresolved matters or specified premises affect the opinion?	Any material assumption must be stated with its basis and consequence.

Assignment element	Question to answer	Example
Report	How will findings be communicated?	A written report appropriate to the specified use and users.

Client intended user and intended use

The client is the party engaging the appraiser. An intended user is an identified party or class for whom the appraisal is prepared. The intended use is the decision or function the result supports. These elements are related but are not interchangeable.

For example, a company can engage the appraiser to prepare a report for its own acquisition committee. A bank that later receives a forwarded copy does not automatically have an appraisal prepared for its separate lending purpose. Clarify the engagement and reliance arrangements rather than assume that delivery to a new recipient makes the original work sufficient for every new purpose.

The user needs to understand what the conclusion means. “For financing” may be too broad if the client actually needs an opinion for a particular bank, date and property interest. Good assignment language connects the opinion to the decision while preserving the appraiser’s independence. The client’s desired loan or sale price is not the value conclusion.

Basis of value and valuation date

The basis of value defines the kind of value being sought. The purpose explains why it is sought. They answer different questions. A lending purpose does not, by itself, supply a complete value definition. The selected basis and any required premise must be identified and used consistently. Detailed bases of value will be developed in the next lesson.

The valuation date is the date to which the opinion relates. The inspection date records when the property was inspected. The report date records when the report was issued. They can differ. State them clearly and use evidence relevant to the valuation date.

Suppose an assignment asks for an opinion as at 31 December 2025, but inspection occurs in February 2026. The later inspection may provide useful evidence; it does not automatically establish the property’s condition or lease status on the earlier date. Investigate changes and select a method of analysis appropriate to the retrospective assignment.

For a future date, the assignment requires a defined prospective premise and analysis of future conditions. Do not present a current value as a future value simply by replacing the date in the heading. A date is part of the appraisal problem, not a clerical label.

Scope of work and material assumptions

Scope of work describes the investigation and analysis needed for the defined problem. A complex occupied industrial property will usually require different information from a simple vacant residential lot. Set the scope after understanding the subject, users, use, basis and date.

Inspection should answer practical questions: Does the observed site match the parcel description? Which improvements exist? Who occupies them? What access is available? Are there visible signs of a use or

restriction that requires further inquiry? Documentary review and market research then address matters that observation cannot settle.

An assumption states a premise used in the analysis. It should not hide a known contradiction. If development approval is missing, say what is known, what is uncertain and how the premise affects the result. If a client requests an alternative scenario, distinguish that scenario from the actual condition and determine whether it is suitable for the intended use.

Consider a request to value a proposed warehouse as completed while the site is still vacant. The subject, date and development premise need explicit definition. Construction specifications, approval status, completion assumptions and other evidence will matter. A present inspection of vacant land is not evidence that the completed building exists.

Material limitations deserve an operational response. Request the evidence, adjust the scope, obtain specialist input or revise the instructions. If adequate work cannot support the requested opinion, explain that limitation before accepting an unsuitable assignment or issuing an unsupported conclusion.

Competence independence and a defensible conclusion

Ask whether you can perform the work competently and independently. A first inspection of a highly specialized plant may reveal technical issues requiring machinery expertise. A complicated instrument may require legal interpretation. Identifying and obtaining that support is part of sound professional work.

Keep the value conclusion separate from the client's preferred outcome. A request for "at least PHP 20 million so the loan will be approved" supplies a desired number, not appraisal evidence. Define the legitimate assignment and develop the opinion from the relevant facts and analysis.

Keep a record of the instructions, documents received, inspections, material queries and how inconsistencies were resolved. The work should allow a reviewer to follow the reasoning from the defined interest to the conclusion. This lesson supplies a practical discipline; later lessons will develop standards, ethics, methods and reporting in detail.

7 Worked appraisal cases

All names, properties, amounts and terms below are fictional teaching examples. The stated legal status and numerical inputs are supplied for the exercise; they are not evidence about any actual property.

Case 1 A building with a tenant

The facts. Mira owns a 400-square-meter parcel and its two-storey building. A shop tenant occupies the ground floor under a lease with four years remaining at the valuation date. A bank requests an appraisal of Mira's interest for a lending decision. The tenant's movable merchandise is excluded.

Step 1 — Identify the physical subject. The subject is the identified land and building. Confirm the parcel, improvements and excluded movable assets.

Step 2 — Identify the interest. The bank has requested Mira's ownership interest subject to the existing lease. Do not substitute an unrestricted vacant property merely because Mira is the title holder.

Step 3 — Obtain the evidence. Review the title, the complete lease and amendments, rent and expense information, inspection findings and appropriate market data. Establish which space is leased and what happens when the lease ends.

Step 4 — Explain the valuation consequence. The owner's benefits may include contractual income during the remaining term and later occupation or reletting. Comparable information must be examined for differences in tenancy and rights. The lease has an effect to analyze, not an automatic percentage deduction.

Model assignment sentence. "Estimate the value, on the stated market value basis as at 30 September 2026, of Mira's ownership interest in the identified land and building, subject to the documented ground-floor lease, for the named bank's lending decision; the tenant's movable merchandise is excluded."

What an examiner is testing. Can you distinguish the title holder's ownership from immediate vacant possession and identify the evidence that defines the benefits?

Case 2 Favorable rent and a tenant benefit

The facts. A tenant has three years remaining on a lease. Comparable market rent for equivalent terms is assumed at PHP 600,000 per year. Contract rent is PHP 480,000 per year. For this exercise only, assume the lease benefit is transferable, all other terms and expenses are equivalent, the difference remains constant, payments occur at each year-end and the discount rate is 10 percent. No renewal benefit or separate terminal value is included.

Step 1 — Annual difference. PHP 600,000 − PHP 480,000 = PHP 120,000 per year.

Step 2 — Bring each benefit to the valuation date. A benefit received later is discounted. Divide each year's benefit by (1 + rate) raised to the number of years.

Year	Annual benefit	Present value calculation	Present value
1	PHP 120,000	120,000 ÷ 1.10	PHP 109,090.91
2	PHP 120,000	120,000 ÷ 1.10^2	PHP 99,173.55
3	PHP 120,000	120,000 ÷ 1.10^3	PHP 90,157.78
Total		Sum of discounted amounts	PHP 298,422.24

Step 3 — Interpret the answer. Approximately PHP 298,422 is the present value of the specified rent advantage under the exercise assumptions. The undiscounted total is PHP 360,000. Neither number is the value of the entire land and building.

Step 4 — Identify what could change a real assignment. A restriction on assignment, different expense responsibilities, rent review, early termination risk or a non-equivalent comparable lease could change the analysis. Verify those matters instead of carrying the classroom assumptions into a live valuation.

What an examiner is testing. Can you calculate a benefit while keeping the subject and assumptions clear? The correct arithmetic does not rescue an incorrectly identified interest.

Case 3 An undivided share

The facts. A 1,000-square-meter lot is held in coownership. Luis holds a documented 25 percent undivided interest. A separate appraisal of the whole ownership interest gives an assumed value of PHP 12 million. Luis asks for “the value of my 250-square-meter lot at the front.” There is no supporting partition or separate parcel evidence.

Analysis. The defined subject is Luis’s undivided share. The front 250 square meters is not established as his separate property by the stated facts. A proper next step is to clarify the interest and obtain the relevant documents before valuing a supposedly independent front lot.

Arithmetic benchmark. PHP 12,000,000 × 25 percent = PHP 3,000,000. Label this a proportional reference amount. To conclude the market value of Luis’s interest, investigate control, use, transfer arrangements and relevant market evidence. A preset minority discount would be unsupported.

Model response. “The documentation identifies a 25 percent undivided interest. The request for a separate front parcel requires additional legal and parcel evidence. The whole-property value provides a proportional benchmark but does not determine the fractional-interest market value.”

What an examiner is testing. Can you separate an ownership proportion, a physical area and a market conclusion?

Case 4 A corridor and an easement

The facts. A 500-square-meter site is subject to a documented access easement over a 50-square-meter side corridor. A student argues that the property has lost 10 percent of its value because 50 ÷ 500 = 10 percent.

Analysis. The calculation correctly describes the corridor’s share of the site area. It does not measure a loss in value. Establish the rights and restrictions in the corridor, its relationship to building placement and access, and the effect on the feasible use of the whole site.

Compare two possible circumstances. In the first, the corridor coincides with space that would not be built on and causes little operational interference. In the second, it prevents the only practical loading arrangement. The same area can have different effects. Market evidence and property-specific analysis are needed to support the adjustment.

Model response. “The corridor covers 10 percent of the site area. Its effect on value remains to be analyzed from the instrument, site layout, permitted use and market evidence.”

What an examiner is testing. Can you distinguish physical measurement from an economic effect?

Case 5 Property value and financing

The facts. An appraisal supports PHP 8 million for the specified property interest. Outstanding mortgage debt is PHP 3 million. The client asks whether the appraisal should now state PHP 5 million as the property value.

Analysis. No. The debt amount does not, by itself, replace the supported property value. PHP 8 million − PHP 3 million = PHP 5 million is a simplified net position before selling costs, other claims and other relevant adjustments. It is a different calculation for a different question.

If the assignment is to analyze a lender's security or a particular net interest, clarify that subject and the required investigation. Do not assume that the simple subtraction establishes the market value of either interest.

What an examiner is testing. Can you keep asset value, loan amount and net proceeds separate?

Case 6 Build the complete assignment

The facts. Northline Bank needs an opinion for a proposed mortgage loan. The borrower owns an identified warehouse and land. A tenant occupies the warehouse under a lease ending in 2029. A side passage is covered by a documented easement. The bank requests a value as at 30 September 2026. Inspection is scheduled for 10 October 2026. The report is expected on 20 October 2026. Tenant inventory and movable equipment are excluded.

Your task. Identify the users, use, subject, basis, dates, evidence and material follow-up questions before selecting a valuation approach.

Model brief. Client: Northline Bank. Intended user: the bank's identified credit committee, subject to the actual engagement. Intended use: the specified lending decision. Subject: the borrower's ownership interest in the identified land and warehouse, subject to the documented lease and easement. Basis: the selected market value definition to be stated in the engagement and report. Valuation date: 30 September 2026. Inspection date: 10 October 2026. Expected report date: 20 October 2026. Exclusions: the tenant's inventory and movable equipment.

Evidence plan. Obtain the current title record, lease and amendments, easement instrument and location plan, applicable site and land-use information, building details, rent and expense records, and appropriate market evidence. Inspect the property and inquire about changes between the valuation and inspection dates.

Follow-up questions. Are the provided documents complete and current? What exactly can the tenant use? Are there renewal or termination rights? Does the passage affect loading, construction or the proposed use? Has the property's condition or occupancy changed since 30 September? Is specialist input needed to resolve a material issue?

Why this brief works. Each element helps define the opinion. It identifies the interest, separates the dates and gives the investigation a purpose. It also leaves the value conclusion to the analysis rather than the desired loan amount.

8 Your assignment worksheet

Complete this worksheet for a vacant residential lot, then repeat it for an occupied commercial building. Write full sentences for the subject and the intended use.

Element	Your response
Client and intended users	_____ _____
Decision and intended use	_____ _____
Physical property and included assets	_____ _____
Interest and interest holder	_____ _____
Basis of value and premise	_____ _____
Valuation inspection and report dates	_____ _____
Required documents and site inquiries	_____ _____
Material assumptions or unresolved issues	_____ _____
Scope specialist support and report form	_____ _____

Self-check: Could another appraiser identify the same subject and investigate the same decision from your description? If the answer is no, revise it before calculating value.

9 Examination review

The sequence to remember

Identify the parcel and included assets. Identify the holder and the interest. Establish the purpose, users, basis and date. Gather evidence that defines the rights and benefits. Resolve material uncertainty. Then select and apply the appropriate analysis.

Read a scenario once for the physical property and again for the legal and timing facts. Underline words such as “subject to lease,” “undivided,” “remaining term,” “easement,” “as at” and “excluded.” Those words can change the assignment even when the numerical data are simple.

Tempting shortcut	Better professional reasoning
The title is clean so every use is allowed.	Check relevant restrictions, statutory exceptions and official land-use information.
The tenant occupies the property so the tenant owns it.	Identify the legal basis of occupation.
The loan is PHP 3 million so deduct it from property value.	Separate the requested property interest from financing and net position.
A 25 percent share is a quarter of the frontage.	Confirm whether the interest is undivided or a separately established parcel.
Ten percent of the land is affected so deduct ten percent of value.	Analyze the restriction’s actual effect and market response.
The client wants a minimum value so use that as the conclusion.	Treat the desired outcome as a request, then develop an independent opinion.
The inspection date must be the valuation date.	State each date and relate the evidence to the requested date.

Key terms

Term	Meaning for this lesson
Real estate	The physical land and its attached improvements.
Property interest	The defined rights or benefits that are the subject of the appraisal.
Possession	Holding or control; it does not by itself answer the ownership question.
Contract rent	The agreed rent under the lease.
Market rent	An estimate of rent under relevant market conditions and specified terms.
Usufruct	Enjoyment of another’s property under the creating instrument and applicable law.
Dominant estate	The immovable benefited in the two-estate easement arrangement.
Servient estate	The immovable burdened in that arrangement.
Undivided interest	A proportion in the commonly held property, without automatic exclusive ownership of a specific portion.
Intended use	The decision or function the appraisal is prepared to support.
Basis of value	The governing definition of the value being sought.
Valuation date	The date to which the opinion applies.
Scope of work	The investigation and analysis needed for the defined appraisal problem.

10 Original practice test

Choose the single best answer. Suggested study time: 30 minutes. The questions are original learning exercises, not reproduced PRC items or a prediction of the 2027 examination. Record your answers before proceeding to the explanations.

1. An assignment identifies a 600-square-meter lot and its warehouse. Which additional statement most clearly defines the appraisal subject?

A. The warehouse has a recently painted roof.

B. The subject is the owner’s interest in the lot and warehouse, subject to the existing lease.

C. The site can be inspected on a weekday.

D. The report will use color photographs.

2. A retailer occupies a shop under a lease. The retailer owns movable inventory. Which statement is best supported?

A. Occupation establishes ownership of the land.

B. All assets inside the shop belong to the landowner.

C. The retailer automatically holds the owner’s entire interest.

D. The retailer’s occupation and inventory ownership are distinct from land ownership.

3. An owner’s building is subject to a lease with five years remaining. The assignment concerns the owner’s actual interest. What should the appraiser do?

A. Investigate the lease terms and their effect on the owner’s benefits.

B. Assume the building is available for immediate vacant possession.

C. Ignore the lease because the owner holds title.

D. Use only the tenant’s inventory value.

4. Which description best fits usufruct for this lesson?

A. A loan secured by the property.

B. An automatic transfer of the whole ownership.

C. Enjoyment of another’s property under the creating instrument and applicable law.

D. A partition that creates a separate parcel.

5. A right of passage burdens Lot A for the benefit of Lot B, owned by a different person. Which is correct?

A. Lot A is the dominant estate.

B. Both lots are necessarily transferred to the passage user.

C. Lot B is the dominant estate.

D. The easement proves that Lot A has no remaining value.

6. A corridor subject to an easement occupies 8 percent of a site. Which conclusion is justified by that fact alone?

A. The corridor occupies 8 percent of the site area.

B. The corridor must be removed from the title.

C. The site has lost exactly 8 percent of its value.

D. The dominant property has gained exactly the same monetary amount.

7. Nina has a 20 percent undivided share in a parcel. No partition is established. Which subject is best supported?

A. A specific building-free section chosen by the appraiser.

B. The eastern 20 percent of the land as a separate lot.

C. The entire ownership interest held exclusively by Nina.

D. Nina’s documented undivided interest in the parcel.

8. The whole property is assumed at PHP 10 million. A coowner holds 30 percent. What does PHP 3 million represent without further evidence?

A. The conclusive market value of the share.

B. A proportional reference amount based on the whole-property value.

C. The mandatory discounted value of the share.

D. The market value of a separate front parcel.

9. A mortgage exists over a property. Which statement is correct?

A. The mortgage secures an obligation and does not by itself transfer ownership to the lender.

B. The lender automatically becomes owner as soon as the mortgage exists.

C. The property must be valued at the loan balance.

D. The owner’s interest can no longer be identified.

10. The specified property interest is valued at PHP 9 million and debt is PHP 4 million. What is the best description of PHP 5 million?

A. The new property market value caused by the debt.

B. The conclusive market value of the lender’s security.

C. Proof of the bank’s approved loan amount.

D. A simplified net amount before other costs and obligations.

11. A current title record shows no annotations. Which response is most appropriate?

A. Discard official land-use information.

B. Conclude that all proposed developments are permitted.

C. Continue the relevant inquiries into restrictions and statutory exceptions.

D. Treat the title as evidence of current market rent.

12. The title area is 600 square meters; a client sketch says 650 square meters. What is the best next step?

A. Use 650 because the client supplied it.

B. Investigate the discrepancy and obtain appropriate survey clarification.

C. Use whichever gives the desired value.

D. Average the two figures.

13. A report is prepared for a company's acquisition committee. A bank later receives a forwarded copy. What should be clarified?

A. Whether the bank likes the cover design.

B. Whether forwarding changes the property's ownership.

C. Whether every later recipient is automatically an intended user.

D. Whether the original engagement, intended users and use support the bank's requested reliance.

14. Which item answers why the appraisal is being prepared?

A. The intended use.

B. The title number.

C. The building area.

D. The inspection date.

15. Which item defines the kind of value being sought?

A. The photographer's site visit.

B. The client's preferred loan amount.

C. The basis of value.

D. The report's page count.

16. The opinion is requested as at 30 September, inspection is on 10 October and the report is issued on 20 October. Which date is the valuation date?

A. 10 October.

B. 30 September.

C. Whichever date gives the highest result.

D. 20 October.

17. A client says the warehouse is vacant, but inspection shows an operating tenant. What is the best response?

A. Continue using vacant possession without inquiry.

B. Assume the tenant owns the land.

C. Obtain occupancy evidence and clarify the interest and valuation premise.

D. Replace the appraisal with the tenant's stock count.

18. A client requests a value "of at least PHP 20 million." What is the appropriate professional response?

A. Adopt PHP 20 million as a required finding.

B. Choose only comparables above PHP 20 million.

C. Treat the requested number as market rent.

D. Define the legitimate assignment and develop an independent evidence-based opinion.

19. A company owns land, equipment and debts. The requested subject is shares in the company. Which statement is best?

A. An appraisal of the land may be an input, but does not automatically equal the share value.

B. The shares are necessarily immovable because the company owns land.

C. The company's debts never matter to the share assignment.

D. The land's address alone fully defines the share subject.

20. An assignment concerns land and a building; tenant movable equipment is excluded. Which step best prevents an unclear conclusion?

A. Add the equipment because it appears in photographs.

B. State the included interest and assets and document the exclusion.

C. Omit any discussion of included assets.

D. Assume all items at the site belong to the landowner.

Short answer practice

1. A client requests an appraisal of “my land,” but supplies a lease and a document identifying only an undivided share. Write the first three issues you would clarify.

2. Explain in three or four sentences why a corridor covering 10 percent of a site does not automatically cause a 10 percent value loss.

3. Draft a one-sentence appraisal subject for a land and warehouse interest subject to a lease, excluding tenant inventory. Then state three dates that should be distinguished.

11 Answers and explanations

Questions	Answer sequence
1–5	B D A C C
6–10	A D B A D
11–15	C B D A C
16–20	B C D A B

1. Answer B

The interest statement identifies the rights being valued and the lease that qualifies them. Roof condition, inspection timing and photographs may be relevant, but none defines the property interest.

2. Answer D

Occupation, inventory ownership and land ownership concern different subjects. Neither presence on the premises nor location of an asset proves ownership of the land or all items in the building.

3. Answer A

The actual ownership interest is subject to the lease. Its terms can affect income and future use. Title does not justify ignoring it, and tenant inventory is a different asset unless expressly included.

4. Answer C

Usufruct concerns enjoyment of another's property and the applicable preservation obligation and terms. It is not, merely by its existence, a mortgage, whole ownership transfer or partition. See Civil Code articles 562 and 565.

5. Answer C

In this two-estate arrangement, the benefiting Lot B is dominant and the burdened Lot A is servient. The stated right does not prove a transfer of ownership or total loss of value. See article 613.

6. Answer A

The percentage measures area only. Value effects, ownership consequences and the benefit to another property require the terms and further analysis.

7. Answer D

The share is undivided. The facts do not establish an exclusive eastern portion, whole ownership or a separate area selected by the appraiser. See article 493.

8. Answer B

PHP 10 million × 30 percent = PHP 3 million. This arithmetic benchmark does not resolve control, use, marketability or the actual market value of an undivided interest.

9. Answer A

A mortgage is a security arrangement. Its existence alone does not make the lender owner, set the property's value or prevent identification of the ownership interest. See articles 2124–2126.

10. Answer D

PHP 9 million – PHP 4 million gives a simplified net position. It does not independently value the property, the lender's security or determine lending approval.

11. Answer C

A title is important, but section 44 of PD 1529 identifies exceptions. Other relevant use inquiries remain necessary. A title is not a substitute for land-use information or rental evidence.

12. Answer B

Determine what the figures represent and obtain suitable evidence. Averaging, client preference and desired value do not resolve the parcel discrepancy.

13. Answer D

A new recipient and purpose require clarification of the engagement and adequacy of the work. Receipt of a copy does not automatically resolve intended reliance. Cover design and forwarding do not define ownership.

14. Answer A

Intended use identifies the decision or function supported. Area and title identify aspects of the subject, while inspection date records when it was inspected.

15. Answer C

The basis of value supplies the governing definition. A desired outcome, site photography and report length do not supply it.

16. Answer B

The stated opinion relates to 30 September. Inspection and issue dates serve different purposes; investigate changes and use evidence relevant to the valuation date.

17. Answer C

The inconsistency can change the subject and benefits. Resolve it with evidence and instructions. The observed tenant does not prove land ownership, and inventory counting does not solve the assignment.

18. Answer D

The client's target is not valuation evidence. An independent analysis may support a different conclusion. Selecting evidence solely to meet a target is not a sound appraisal process.

19. Answer A

Underlying real estate and company shares are different subjects. Article 417 identifies company shares as personal property even when the company owns real estate. Broader entity facts require their own analysis.

20. Answer B

The report should make the subject and exclusions clear. Location and photographs do not establish inclusion or ownership, and silence can leave the user uncertain about what was valued.

Model short answers

1. Clarify the documented share and whether any separately established parcel is involved. Clarify whether the assignment concerns the coowner's actual interest subject to the lease or another expressly defined scenario. Obtain the complete creating, ownership and lease documents, and establish the intended use, users, basis and date before choosing a method. The client's phrase "my land" does not resolve the subject.

2. The area percentage describes the part of the site subject to the corridor. Value depends on what the easement allows or prohibits and how that affects the property's useful functions. The route could have little interference or could prevent essential access, loading or development. The instrument, layout, feasible use and relevant market evidence support the value analysis.

3. "The subject is the owner's identified interest in the specified land and warehouse, subject to the documented lease; the tenant's movable inventory is excluded." Distinguish the valuation date, inspection date and report date. Add the basis of value, users and intended use to complete the engagement description.

Use your results to review

Review every incorrect answer and explain the error aloud before trying the question again. If you missed questions 1–3 or 19–20, return to sections 1 and 3. For questions 4–10, reread section 4 and the worked cases. For questions 11–12, revisit the evidence discussion. For questions 13–18, revisit assignment definition.

A useful personal target is at least 16 correct answers out of 20, followed by a sound explanation of each missed item. This is an original study target, not a PRC passing rule or a validated prediction of examination performance. You have mastered the lesson when you can define the subject accurately in a new case, not merely recall the letters in the answer key.

Before you move to Lesson 2

Be able to explain why physical description and legal interest both matter; identify the practical difference between a lease, usufruct, easement, coownership and mortgage; and write an assignment brief with its purpose, users, basis and date. The next lesson builds on that foundation by explaining value concepts and bases of value.

12 References and examination status

Legal explanations are paraphrased for study. Read the cited provisions in full. The framework, cases, worksheet and assessments are original teaching material.

1. Republic Act No 9646

Real Estate Service Act of the Philippines. Sections 3(a), 3(c), 3(f), 3(g)(2) and 13(b) support the profession, subject distinctions and statutory examination areas.

https://lawphil.net/statutes/repacts/ra2009/ra_9646_2009.html

2. Republic Act No 12001

Real Property Valuation and Assessment Reform Act. Section 4 provides relevant definitions. The detailed RPVARA assessment and implementation rules require dedicated treatment in later lessons.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

3. Republic Act No 386

Civil Code of the Philippines. Review articles 414–417; 427–428 and 431; 493; 562 and 565; 613–614; 1643; and 2124–2126 for the propositions taught here.

https://lawphil.net/statutes/repacts/ra1949/ra_386_1949.html

4. Presidential Decree No 1529

Property Registration Decree. Section 44 addresses registered land and stated exceptions.

https://lawphil.net/statutes/presdecs/pd1978/pd_1529_1978.html

5. PRC Real Estate Appraiser examination program for 2026

The published coverage includes appraisal foundations, valuation procedures and research, report writing, and land management and real property laws. These are the principal coverage connections for this lesson.

https://www.prc.gov.ph/sites/default/files/REA%20exam%20program%202026.pdf

6. BLGF Philippine Valuation Standards reference

Philippine Valuation Standards third edition. IVS 101, printed page 19, paragraphs 10.1–10.5, supports the introductory scope discussion. Later lessons develop the standards requirements.

https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

What is verified and what remains open

Verified foundation. The cited statutes support the legal distinctions taught in this chapter. RA 9646 establishes relevant statutory examination subjects, and the 2026 PRC program provides an examination coverage reference. The lesson's competency mapping and study sequence are editorial choices for learning.

2027 status. The 2026 program is a coverage reference, not a confirmed 2027 syllabus. No official question count or topic weight is assigned here. Check the 2027 program, any revised table of specifications and current standards before final publication. The worksheet is a teaching tool; a professional engagement requires the complete applicable standards.

Professional application. Actual work requires the applicable law, current standards and appropriate interpretation of the specific documents. This chapter trains the examinee to recognize the issue, identify the evidence and define the appraisal problem before developing a value opinion.

REALEX

Lesson 2

Value Concepts and Market Behaviour

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

A property can cost PHP 15 million to develop, be offered at PHP 18 million, and still have a supported market value of PHP 12 million. These amounts answer different questions. Learning to distinguish them is essential before you apply an appraisal formula.

Lesson 1 established what interest is being valued. This lesson explains what “value” means, how a property market responds to useful features and available alternatives, and why the basis and date of the opinion matter. You will examine transaction evidence, buyer circumstances, rent terms and simple numerical cases without treating a calculation as a substitute for judgment.

The explanations, examples and questions are original study material. The legal and standards references at the end identify the foundations for further reading.

Your learning goals

- Distinguish an asking price, an agreed transaction price, historical cost and an appraisal opinion.
- Explain utility, scarcity, desire, purchasing power and the practical ability to transfer an interest.
- Analyze a transaction for its rights, date, terms, marketing and party circumstances.
- Distinguish market value, market rent, investment value and other relevant bases or measurement contexts.
- Recognize a forced sale circumstance and explain why a fixed percentage discount is insufficient.
- Separate market value, assessed value, accounting carrying amount and a simplified net position.
- Use simple rent, cash flow and comparison calculations while stating what each result represents.

Study plan: Read sections 1–4 in one session and sections 5–7 in another. Then complete the worked cases, worksheet and practice test. Allow approximately three hours in total, adjusting the pace to your familiarity with the concepts.

1 Price cost and value

Price records a request or an exchange

An asking price is the amount a seller requests. It may express an expectation, a negotiating position or a target based on the seller's financial needs. Until a transaction occurs, it is not an achieved sale price.

A transaction price is the amount agreed in a particular exchange. It gives the appraiser evidence of what those parties did under those terms. It does not automatically establish the value of every similar property or the market value of the same property at another date.

For example, an owner advertises a shop at PHP 8 million. A buyer offers PHP 7 million. They eventually agree at PHP 7.4 million. The advertisement, offer and agreement are three different observations. Label each correctly. A spreadsheet column headed "sales" should not silently combine advertised amounts with completed transactions.

Also establish what the agreed amount includes. A restaurant sale might include land, a building, furniture, operating equipment, inventory and business interests. If your subject is the land and building alone, the package price requires investigation before use as direct property evidence.

The same discipline applies to rental evidence. An advertised monthly rent may differ from the agreed rent after negotiations, free-rent periods, fit-out contributions or changes in lease terms. Preserve those facts instead of recording only the largest headline amount.

Cost measures expenditure for a defined subject

Cost concerns the money or resources required to acquire, create or replace an asset within a stated scope and time. Historical cost records what was incurred. A current cost estimate asks what specified work would cost now. A replacement estimate needs a description of the utility to be replaced.

Suppose an owner bought land for PHP 2 million several years ago and spent PHP 5 million constructing a building. Those figures describe transactions and expenditure in their historical circumstances. They do not tell you, without further work, what a buyer would pay for the current property interest.

The cost scope matters. A construction contract could exclude land, professional fees, permits, financing, developer overhead, off-site works or other costs. An appraisal schedule should not compare an incomplete construction cost with the value of an entire completed development as if they covered the same subject.

Expenditure can be inefficient or unsuitable for the market. An unusually elaborate interior may cost heavily but appeal to few purchasers. A well designed access improvement may cost relatively little yet remove an important operational disadvantage. Cost is evidence to analyze; it does not impose a floor on what buyers will pay.

This is especially important when reviewing development budgets. A project team can correctly measure every payment and still need a separate appraisal of the completed asset. Accurate cost reporting and a supported value opinion serve different decisions.

Value is an opinion under a defined basis

A value opinion estimates an amount for the identified interest under the stated basis, date and circumstances. It depends on analysis of relevant evidence. Under RA 12001, valuation is a systematic process leading to a supportable estimate or professional opinion for a specific date and purpose. [1, sec. 4(r)]

The opinion should tell the reader what was valued and what kind of value was sought. “PHP 12 million” is incomplete if it could mean the whole ownership interest, an undivided share, value to a particular investor, or an amount under a specified liquidation scenario.

An appraisal is not a promise that the next transaction will occur at exactly the reported amount. Parties may negotiate under different circumstances; information and conditions may change. A defensible opinion makes its reasoning understandable rather than presenting certainty that the evidence cannot support.

Amount	What it tells you	What it does not establish alone
Asking price	What the seller is requesting.	An achieved sale price or a supported market value.
Transaction price	What particular parties agreed for specified rights and terms.	An automatic value for a different subject or date.
Historical cost	What was incurred under the recorded cost scope.	Current exchange value.
Current replacement estimate	Cost of a defined replacement at the stated time.	The value of the whole property without further analysis.
Appraised value	The supported opinion for the identified interest, basis and date.	A guaranteed future selling price.

Compare like with like

Before comparing two amounts, match the interest, included assets, date, condition, monetary units and transaction terms. A current ownership interest in a leased building is not automatically comparable with an old sale of vacant land. A price including tenant equipment is not automatically comparable with a property-only opinion.

Practice explaining a discrepancy before solving it. If cost exceeds the appraised value, ask about the scope of each figure, changes in the market, the usefulness of the improvements and the applicable basis. If the price exceeds the appraisal, ask about financing, included assets and buyer circumstances. The discrepancy is a prompt for investigation, not proof that one figure must be wrong.

2 Why a property has economic value

Utility is usefulness to a relevant user

Utility concerns the benefits an interest can provide. A house can provide accommodation. A shop can provide space for trading. A warehouse can provide storage and distribution functions. Those benefits depend on the property’s physical features and the rights available to the user.

Consider a warehouse with a large floor area but an entrance too narrow for the vehicles its likely users need. Its size alone does not establish good utility. An operationally useful entrance, loading arrangement and circulation can matter more than extra space that cannot be used effectively.

Utility is therefore relative to a use and a market. A quiet location may appeal to residents while providing poor visibility for a roadside retailer. A specialized cold room can benefit one business while imposing conversion costs on a general storage operator. Identify who is likely to use the property and which features affect that use.

Legal availability also affects usefulness. A proposed commercial use requires investigation of the applicable permissions and constraints. A physically suitable structure does not automatically confer the right to operate any chosen activity. Connect this inquiry with the property-interest work in Lesson 1.

Scarcity concerns useful alternatives

Scarcity refers to limited availability relative to the needs and purchasing capacity of the relevant market. Every parcel has a unique location, but uniqueness alone does not mean that purchasers will pay a high price. Buyers may have many practical substitutes for the function they need.

Suppose a town has one particular corner lot, but several nearby lots provide adequate visibility and access for the same type of shop. The corner is unique; the commercial function is not necessarily scarce. Examine the alternatives that actual buyers would consider.

Now suppose suitable loading sites close to a port are limited, access approvals are difficult to obtain, and several viable logistics operators need space. Those circumstances may make the functional alternatives scarce. The appraisal still requires evidence of market behavior; a description of scarcity does not establish a monetary premium by itself.

Use the correct geographic and property segment. A shortage of small residential units does not automatically demonstrate a shortage of large luxury houses. A national construction slowdown does not by itself identify the supply available in a particular barangay.

Desire and purchasing power create effective demand

Desire is interest in obtaining a property or its benefits. Effective demand also requires the ability and willingness to pay on relevant terms. A large audience that admires a development is not necessarily a large pool of purchasers at its asking price.

For example, 100 families express interest in a subdivision, but only 15 can meet the required down payment and expected installments. The inquiries are useful information about interest. They should not be reported as 100 completed sales or as proven absorption at the advertised price.

Purchasing power can depend on income, savings, credit access, financing costs and payment terms. A change in loan terms can change the number of households able to acquire the same house even when its floor area has not changed. This illustrates a demand mechanism; the size of a value effect needs evidence.

A developer’s desire for a margin is also different from purchaser demand. Adding a preferred profit percentage to cost produces a target price or feasibility calculation. It becomes a supported market value only if the appropriate analysis supports the amount under the selected basis.

The older BLGF valuation manual explains the interaction of usefulness, limited supply, desire and purchasing power. Those economic ideas remain useful foundations, while its old standards structure must not be treated as the current edition. The examples in this section are original applications of those ideas. [2, introduction to IVSs 1, 2 and 3, printed p. 38]

Transferability affects the interest offered

The practical ability to transfer the identified interest matters to exchange. Investigate the holder's rights, restrictions and relevant documents rather than assume that a useful property can be sold on the client's preferred terms.

Suppose a tenant has favorable rent but the lease restricts assignment. The tenant's occupational benefit and the price another party could pay to acquire that benefit raise different questions. Similarly, an undivided ownership share should not be advertised or appraised as an independently established corner parcel without supporting evidence.

Transferability is not a universal yes-or-no rule about whether an asset has any value. An interest might provide substantial benefits to its holder while having a constrained market for transfer. State the subject and basis, then analyze the applicable benefits and limitations.

For examination purposes, learn the factors as related explanations rather than a formula. Utility, scarcity and demand do not carry preset weights. The legal ability to transfer does not provide a fixed multiplier. Your task is to explain how a stated fact could affect the relevant property interest and what evidence would show the response.

Market issue	Useful question	Example of evidence
Utility	Can the likely user obtain the intended benefit?	Layout, access, condition, services and permitted use.
Scarcity	What functional alternatives are available?	Competing inventory and suitable substitute sites.
Effective demand	Who can and will pay on the relevant terms?	Verified sales, leasing, affordability and buyer inquiries in context.
Transferability	What interest can be transferred and under what conditions?	Title, instrument, restrictions and relevant legal clarification.

3 Understand the relevant market

A market has a property type place and period

Define the market closely enough to make your evidence useful. "Philippine real estate" is usually too broad for a particular appraisal. A better starting description might be small roadside commercial sites in a specified municipality, with comparable access, permitted uses and a defined ownership interest, around the valuation date.

Different segments can move differently. Family houses, student studios, beach accommodation and industrial yards attract different users and financing arrangements. An increase in one segment does not establish an equal increase in the others.

Location also changes the alternatives. Two sites can have similar dimensions but serve different customer catchments or transport needs. A provincial commercial site should not inherit a Metro Manila unit price simply because both are classified as commercial.

Record the period represented by the data. An old transaction can be useful if its circumstances are understood and changes are analyzed. A current listing can be useful evidence of competition. Neither should be relabeled to imply a verified current transaction.

Market participants and a particular buyer

Market-oriented analysis asks how the relevant buyers and sellers would price the interest under the governing definition. It does not require every actual person to have identical preferences or funds. It requires an evidence-based view of the relevant market rather than reliance on the client's unique hopes.

Suppose a vacant commercial lot is useful to several businesses. A neighboring operator may gain an extra operational advantage from joining it to an existing site. That circumstance needs separate analysis: is the advantage available to other relevant purchasers, or does it depend on the neighbor's particular assets and plans?

Do not discard a buyer merely because that buyer sees a benefit. Real buyers evaluate benefits. The important question is whether the appraisal basis requires general market assumptions or the identified party's circumstances. A transaction involving unusual advantages may still offer useful evidence, but the advantage must be investigated before the price is generalized.

Supply and demand are not automatic percentage adjustments

With other conditions held constant, more effective demand relative to available supply can put upward pressure on prices. More competing supply can put downward pressure on prices or change marketing periods and concessions. Real property markets rarely hold every other condition constant.

For example, the opening of a new employment center may increase interest in nearby housing. At the same time, new residential projects may add supply, loan costs may change and some homes may have poor access. The appraisal needs evidence of the resulting market response rather than an automatic increase based on the announcement alone.

Distinguish an announcement, construction and operation. A proposed road has a different evidential status from an open road serving actual traffic. Purchasers may respond to expectations before completion, but the expectation and uncertainty must be investigated. Later success should not be inserted into an earlier valuation as if everyone had known it with certainty.

Inventory and absorption can help describe market conditions when their definitions are clear. A count of available units, verified sales over a period and changes in concessions can inform the analysis. The simple worked inventory case later in this lesson demonstrates the arithmetic and its limits.

Ask whether an improvement adds value

An improvement can add usefulness without adding value equal to its cost. A purchaser may recognize only part of the benefit of an expensive feature. Another improvement may unlock an important use and have a larger effect relative to cost.

Suppose a residential owner spends PHP 800,000 on highly personalized finishes. Buyers prefer different finishes and would incur replacement costs. The expenditure is real, but its effect on exchange value must be observed or estimated from market evidence. Do not add PHP 800,000 merely because invoices are available.

Conversely, a modest repair that restores ordinary functionality can remove an important disadvantage. Its value effect should still be supported; it is not established merely by calling the repair essential. Lesson 3 will develop contribution, substitution and highest and best use more fully.

4 Read market value carefully

The Philippine statutory foundation

RA 12001 describes market value as an estimated exchange amount for real property at the valuation date, involving willing buyer and seller, independent dealing, proper marketing, informed and prudent action, and no compulsion. Read the complete definition in section 4(l). [1]

Each element constrains the opinion. It is an estimate, rather than an instruction to copy a seller's price. It refers to an identified date. It assumes a suitable market process and parties acting without compulsion. The statutory definition gives you a framework for asking whether a transaction is relevant evidence.

The appraisal subject remains the interest identified in Lesson 1. Stating "market value" does not remove an actual lease, convert an undivided share into a separate lot, or add machinery excluded from the engagement. Basis and subject must work together.

Independent dealing informed action and willingness

Consider a transfer from a parent to a child at a deliberately favorable amount. The recorded price may be accurate as a record of that agreement. Its suitability as market evidence needs investigation because the relationship and purpose may affect the terms.

An unrelated-party transaction also requires investigation. Unrelated parties can agree unusual financing or face information gaps. A family relationship is a reason to ask questions, while an absence of relationship is not proof that every requirement is satisfied.

Willingness does not mean desperation or a determination to transact at any amount. Suppose a seller accepts an ordinary market price after a normal sale process during a downturn. Disappointment with the price is not, by itself, proof of compulsion. Examine the circumstances and the time available.

Knowledge and prudence require attention to relevant information and conditions. If an apparent sale price reflects an undisclosed major defect discovered later, consider what the parties knew and how that affects the evidence. Do not assume a purchaser knew every legal and physical fact simply because a deed exists.

Marketing and the valuation date

Proper marketing is appropriate to the property and market. A residential lot, a resort and a specialized plant may require different ways of reaching suitable purchasers and allowing investigation. There is no universal number of days that makes every transaction suitable market evidence.

The ordinary time needed to find a buyer and perform due diligence depends on the asset, price, rights and conditions. A seller's decision to advertise only to one acquaintance can affect the evidence. A long marketing period may reflect an excessive asking price rather than a mandatory rule about the market.

For study purposes, distinguish a period of exposure supporting an exchange at the valuation date from an estimate of the time needed to market the property after that date. If such a period is reported, define what it means, its premise and evidence. Do not mix elapsed listing time with a future marketing forecast.

A value opinion is specific to its date. If a new road opens after the requested date, investigate the information and expectations existing at that date. A later event can sometimes provide evidence about an earlier condition; it should not automatically replace the earlier market circumstances.

A completed sale needs more than a price per square meter

A price per square meter can organize information, but it compresses a transaction into one ratio. It may conceal differences in rights, location, access, size, condition, included assets and payment terms.

For example, a PHP 6 million package price over a 600-square-meter lot gives PHP 10,000 per square meter arithmetically. If the package includes a building and equipment, it is not automatically a land-only unit price. Division cannot allocate the package between its components.

Before using a comparable, record the transaction date and status, interest transferred, asset inclusions, consideration and payment terms, marketing circumstances, parties and relevant physical features. The detail gives the ratio meaning. Later methods lessons will show how to analyze and reconcile comparable indications.

5 Bases of value and other measurement contexts

Choose the question before the method

The basis of value describes the governing kind of value. The intended use describes the decision the opinion supports. The valuation approach is a way of developing an indication. These are separate choices.

A request for a bank appraisal supplies an intended use. It still needs a defined basis, subject, date and reporting requirements. A decision to use comparable sales does not, by itself, establish the basis. A request to analyze value to a particular operator differs from a request for general market value.

Where law or a regulator prescribes the basis, apply that requirement. RPVARA adopts market value as the real property valuation base for the taxation and government transactions it addresses. An investor's decision model does not replace a required statutory valuation. [1, sec. 3(b)]

The PVS third edition identifies bases and premises within IVS 102. The short descriptions below are paraphrases for recognition; consult the standards for full requirements. [3, IVS 102 appendix]

Basis or context	Central question
Market value	What exchange amount is supported under the market value definition?
Market rent	What rent is supported for the identified interest and stated lease terms?
Investment value or worth	What is the interest worth to the identified owner or prospective owner for its objectives?
Equitable value	What transfer amount reflects the respective interests of the identified willing and informed parties?
Synergistic value	What value results from combining interests or assets?
Liquidation value	What amount is realizable under the defined liquidation sale and premise?

Basis or context	Central question
IFRS fair value	What market-participant exit price applies under the relevant financial reporting requirements?
Assessed value	What taxable amount results after applying the relevant assessment level?

Market rent needs lease terms

A rent opinion needs an identified space, date, payment period and lease assumptions. Contract rent is the amount payable under the actual agreement. A market rent estimate addresses the relevant market terms. Read IVS 102 appendix A20 in the PVS for the complete framework. [3]

Suppose one shop is offered at PHP 30,000 per month with the landlord paying ordinary repairs, while another is offered at PHP 28,000 with broader obligations on the tenant. The lower headline rent does not establish the cheaper overall occupation on equivalent terms.

Similarly, a free-rent incentive changes the cash collected over the lease term. It is useful to calculate a simple average as an initial comparison, while recognizing that timing, expenses, fit-out obligations and risk can require further analysis. The worked rent case below makes the assumptions explicit.

Do not convert a monthly rental amount into a sale value by multiplying it by an arbitrary number. A capital value analysis needs the relevant income, expenses, timing and return assumptions. A rental opinion and a capital value opinion are different outputs.

Investment value and a particular investor

An investor may assess the interest using its own operational plans, required return and benefits. That analysis can differ from a general market opinion. This is the practical distinction captured by investment value or worth. [4, Investment Value/Worth]

Suppose two prospective owners expect different operational savings from a warehouse. One can serve existing clients more efficiently; the other cannot use that network. They may reach different amounts that each is prepared to pay. A difference in their analyses is not necessarily a disagreement about the same appraisal question.

An investor-specific result can be above or below market value. A high required return, conversion expense or unsuitable operating model may reduce one investor’s amount. A distinctive operational advantage may increase another’s. State whose objectives and assumptions were used.

For a market value assignment, do not silently insert the client’s unique savings. For an investment analysis, do not conceal the dependence on that client’s circumstances. If both opinions are requested, present them separately and explain the different inputs.

Equitable and synergistic value

An analysis for identified parties may consider their respective positions in a transfer. A combination of assets can also create benefits that the separate assets do not provide. The terms equitable value and synergistic value identify these different ideas. [4, Equitable Value and Synergistic Value]

Imagine two neighboring lots that separately cannot accommodate a proposed layout but can accommodate it when assembled. The combined opportunity needs analysis of permissions, cost and market demand. It does not follow that the entire extra benefit should be assigned to either one lot or paid wholly to its owner.

An identifiable neighbor's interest can differ from the interest of another purchaser. Determine which benefits are available to the relevant market and which depend on the identified party. A purchaser-specific amount should not automatically become a general market value conclusion.

The worked assembly case calculates an assumed combined benefit. The calculation demonstrates a relationship; it does not negotiate a fair allocation or determine either parcel's market value.

Fair value in financial reporting

The IFRS Foundation explains IFRS 13 fair value as a market-participant exit price in an orderly transaction at the measurement date. The measurement uses market assumptions, including risk, rather than the reporting entity's intention to keep the asset. [5]

The label "fair value" therefore needs its source and context. It is not simply an instruction to choose a pleasant compromise between two asking prices. A financial reporting assignment requires the relevant accounting framework, unit of account, valuation subject and measurement date.

Market value and IFRS fair value can produce similar amounts in appropriate circumstances, but the labels should not be exchanged without checking their requirements. Do not substitute an investor's unique operational savings merely because management wants a higher asset amount.

This chapter introduces the distinction. It does not resolve all financial reporting measurements, investment property rules or impairment calculations. Those require their applicable requirements and a properly defined engagement.

6 Premises sale constraints and uncertainty

A premise describes the circumstances of the analysis

The basis defines the kind of value. A premise describes relevant circumstances, such as a stated use or disposal arrangement. The method provides the analysis. Keep the three clear so that the reader knows what the amount represents.

For example, a current warehouse can be analyzed in its present configuration or under a specifically defined completed conversion scenario. A forecast conversion cost does not prove that the works exist today. The subject, date and scenario must be stated and the relevant assumptions supported.

Highest and best use will be developed in Lesson 3. Here, recognize that the owner's preferred use and the property's existing use are not automatically the same as the use producing the relevant highest value. That conclusion requires the legal, physical and economic tests appropriate to the assignment.

Liquidation and forced sale circumstances

For a liquidation analysis, specify the sale premise and time available. A forced sale describes constrained circumstances, including compulsion and inadequate time for the normal marketing process; it is not a stand-alone basis. The PVS distinguishes these concepts in IVS 102 appendix A60 and A120. [3]

Suppose the client asks for “quick sale value” but does not state the deadline, marketing arrangements or reason for the constraint. The request is incomplete. Ask what must be sold, under what circumstances, by what date and with what consequences if it is not sold.

The phrase should not trigger an automatic 20 or 30 percent deduction from market value. A limited deadline may affect the buyer pool, due diligence, negotiation and costs differently for different properties. Develop and explain an analysis for the specified circumstances.

A declining market is not automatically a forced sale situation. Sellers may willingly transact at lower current prices. Examine compulsion and marketing constraints rather than classifying every disappointing transaction as a distress sale.

An auction is also not automatically a forced sale or a guarantee of market value. The auction process, exposure, seller constraints, bidder information and conditions need investigation. The sale format alone cannot answer all those questions.

An assumption should make the problem clear

State material assumptions so that a user can understand the opinion. If a proposed access improvement is assumed complete, describe that scenario and the evidence needed. If a lease status is uncertain, resolve it or address the uncertainty explicitly within an appropriate scope.

Avoid assumptions that contradict known facts without explanation. An existing long lease cannot simply disappear from an appraisal of the actual ownership interest because immediate vacancy would produce a higher indication. An alternative vacancy scenario, if appropriate, needs separate identification.

The effective date matters. A future completed-development opinion requires assumptions about the future property and conditions. An earlier-date opinion requires investigation of the earlier state. A current site visit does not erase this distinction.

When uncertainty is material, investigate its source. Missing transaction terms, an unresolved area discrepancy and a thin market are different issues. More decimal places do not solve any of them. The report should explain what evidence supports the opinion and where judgment remains necessary.

7 Other figures examinees must keep separate

Market value and assessed value

RA 12001 defines assessed or taxable value as market value multiplied by the corresponding assessment level. An assessment level is a percentage associated with the applicable property classification and legal rules. [1, sec. 4(b) and (d)]

If an exercise supplies a market value of PHP 5 million and an assessment level of 20 percent, the assessed value is PHP 1 million. The PHP 1 million is not an alternative conclusion that the property would sell for that amount.

Tax due is a further calculation using the applicable taxable amount and rates, with attention to any relevant components, exemptions and rules. The market value, assessment level, assessed value and tax payable occupy different positions in the calculation.

The percentages in the worked assessment exercise are given classroom inputs. They are not a statement of the legal rate for every residential, commercial or agricultural property. Verify the actual applicable law, approved schedules and local rules in a real taxation assignment.

The conceptual link to RPVARA matters: valuing the property and administering its taxes are related activities, but the reform identifies their distinct functions. A tax result cannot be obtained by casually substituting an asking price for the required valuation base. [1, sec. 3(b) and (d)]

Carrying amount insurance and net proceeds

A carrying amount is the amount at which an asset appears in the accounting records under the applicable framework. For a simple historical-cost exercise, cost less accumulated depreciation gives a net book amount. That arithmetic does not establish current market value.

Suppose a building cost PHP 6 million and accumulated accounting depreciation is PHP 2 million. Its illustrative carrying amount is PHP 4 million under that simplified model. A supported current market value might differ because accounting measurement and market appraisal answer different questions.

An insurance assignment also needs its own defined scope and policy context. Reinstatement of a building, debris removal and other covered costs may differ from the sale value of the property interest. Do not assume an insurance sum is the same as a market value or that the same inclusions apply to every policy.

Net proceeds concern what remains after defined costs and obligations. If an exercise begins with an assumed gross sale amount and deducts specified selling costs and debt, the result is a simplified net amount. It is not a new market value conclusion caused by the mortgage or selling expenses.

Label the output before computing it. “Capital value indication,” “assessed value,” “simple average rent” and “net proceeds under the stated assumptions” help the reader interpret the number. A table full of amounts headed only “value” invites mistakes.

Figure	What determines it	Common confusion
Market value	Defined interest, date and market-based evidence.	Copying the asking price or accounting amount.
Assessed value	Market value and applicable assessment level.	Treating it as the probable sale amount.
Carrying amount	Applicable accounting measurement and records.	Treating depreciation bookkeeping as a current appraisal.
Insurance amount	Policy, covered subject and measurement instructions.	Assuming it equals whole-property market value.
Simplified net proceeds	Assumed receipts less specified costs and obligations.	Calling the result the gross property value.

8 Worked value and market cases

All properties, parties, prices and rates below are fictional teaching inputs. Amounts supplied as values are assumptions for the exercise, not independently appraised results. Follow each calculation and explain what the output means.

Case 1 An expensive building and a lower value

The facts. A developer's recorded project expenditure is PHP 14 million, including the land and completed building. The seller asks PHP 17 million. An appropriately scoped appraisal supports PHP 12 million for the specified ownership interest as at the requested date. The developer argues that the appraisal must be at least PHP 14 million.

Step 1 — Label the figures. PHP 14 million is historical project expenditure under the stated scope. PHP 17 million is an asking price. PHP 12 million is the supplied appraisal conclusion. The three amounts are not competing observations of the same thing.

Step 2 — Calculate the differences if useful. Cost exceeds the supplied appraised value by PHP 2 million. The asking price exceeds that value by PHP 5 million. These are arithmetic differences; neither explains the cause.

Step 3 — Investigate the cause. Check scope, timing, property rights, design usefulness, condition, market alternatives and demand. Ask whether the improvements are valued by likely purchasers and whether relevant costs were incurred efficiently.

Model answer. "The expenditure does not establish a minimum exchange amount. The appraisal should be reviewed for its scope, evidence and reasoning, while the asking price remains a seller's request."

Competency tested. Separate cost, price and value before evaluating a development outcome.

Case 2 A price includes other assets

The facts. A verified sale package is PHP 9.6 million for land, a building and movable equipment. For this classroom exercise, a reliable allocation supported by the transaction evidence assigns PHP 600,000 to the equipment. The lot area is 600 square meters. You are asked for the land-and-building package amount per square meter of site area.

Step 1 — Remove the supplied equipment allocation. PHP 9,600,000 − PHP 600,000 = PHP 9,000,000 for the land and building package.

Step 2 — Divide by the specified denominator. PHP 9,000,000 ÷ 600 square meters = PHP 15,000 per square meter of site area.

Step 3 — Label it correctly. It is a land-and-building package amount expressed per square meter of site area. It is not a land-only unit value. A separate allocation is required before making that claim.

Step 4 — Check the evidence in an actual assignment. The deduction is valid here because the exercise supplies a supported allocation. It is not a general instruction to subtract equipment book value, asking price or new cost from every package sale.

Competency tested. Match asset inclusions and units before using a transaction ratio.

Case 3 Favorable financing changes the cash amount

The facts. A seller agrees to PHP 5 million, payable as PHP 2 million immediately and PHP 3 million exactly one year later. No interest is charged on the deferred portion. For this exercise, an independently specified annual discount rate of 10 percent is appropriate to the deferred payment and its risk. Ignore other concessions and costs.

Step 1 — Discount the deferred receipt. PHP 3,000,000 ÷ 1.10 = PHP 2,727,272.73 at the transaction date.

Step 2 — Add the immediate receipt. PHP 2,000,000 + PHP 2,727,272.73 = PHP 4,727,272.73.

Step 3 — Interpret the difference. The nominal price is PHP 5 million. The present value of the specified receipts is approximately PHP 4.727 million under the supplied rate. The difference of about PHP 272,727 reflects payment timing in this simplified example.

Step 4 — Preserve the limit. This is a cash-equivalent calculation for stated payment terms. It does not establish the subject's market value or prove that 10 percent is the correct rate for every vendor-financed transaction. A real analysis also investigates payment risk and other terms.

Competency tested. Recognize why two recorded prices with different payment terms may need further analysis.

Case 4 A rent incentive changes the comparison

The facts. Shop A has a 24-month lease at PHP 30,000 per month, with the first two months free and no other adjustments. Shop B has a 24-month lease at PHP 28,000 per month, payable for every month. Assume equivalent space, rights and expense obligations. Ignore the time value of money for this initial comparison.

Step 1 — Calculate cash rent for Shop A. Twenty-two paying months × PHP 30,000 = PHP 660,000. Divide by 24 occupied months: PHP 27,500 average cash rent per month.

Step 2 — Calculate cash rent for Shop B. Twenty-four × PHP 28,000 = PHP 672,000. The average is PHP 28,000 per month.

Step 3 — Compare on the specified assumptions. Shop A's headline rent is higher, but its simple average is PHP 500 per month lower. Total stated cash rent is PHP 12,000 lower over the term.

Step 4 — State what further analysis requires. Discounting payment timing, service charges, repairs, fit-out contributions, escalation and different risk may change the comparison. The simple average is a useful screening amount, not a complete market rent opinion.

Competency tested. Read the whole lease rather than select the smaller headline number.

Case 5 Value to an investor and a market indication

The facts. A stabilized annual property net operating income of PHP 900,000 is assumed. Independently supplied market evidence supports an illustrative capitalization rate of 9 percent. A particular investor uses a 12 percent required capitalization rate for its own investment screen. Assume the same income, a compatible stabilized capitalization model and no other differences. Rates are given inputs.

Step 1 — Calculate the illustrative market-based income indication.

$$Capital\ \ value\ \ indication\ = \frac{Annual\ \ net\ \ operating\ \ income}{Capitalization\ \ rate}$$

PHP 900,000 ÷ 0.09 = PHP 10,000,000.

Step 2 — Calculate the investor's screening amount. PHP 900,000 ÷ 0.12 = PHP 7,500,000.

Step 3 — Explain the distinction. The larger required rate produces the smaller amount from the same income in this model. The investor's screen need not equal the market-based income indication.

Step 4 — Protect the interpretation. The PHP 10 million is an illustrative indication from one supplied model, not a reconciled appraisal produced by this lesson. The PHP 7.5 million is the investor's simplified screen, not a complete investment valuation. Verify the income, capital expenditure, growth assumptions, rate compatibility and evidence in a real assignment.

Competency tested. Distinguish the market perspective from an individual return requirement and use percentages correctly.

Case 6 A combination creates an extra benefit

The facts. Two separate interests have assumed values of PHP 4 million and PHP 6 million. Their combined interest, under a specified feasible assembly scenario and consistent date and basis, has an assumed value of PHP 11.5 million. The figures already reflect the stated scenario; do not add another assembly deduction in this exercise.

Step 1 — Add the separate values. PHP 4 million + PHP 6 million = PHP 10 million.

Step 2 — Calculate the additional combined amount. PHP 11.5 million − PHP 10 million = PHP 1.5 million.

Step 3 — Explain what remains unresolved. The difference describes the assumed combination benefit. It does not establish how the parties should divide it, what price either seller will accept, or the individual market value of either parcel after negotiation.

Step 4 — Investigate a real proposal. Check use permissions, physical fit, assembly risk, costs, demand and whether other purchasers can obtain the advantage. Distinguish a broadly available benefit from one tied to a particular owner.

Competency tested. Identify an assembly benefit without assigning it automatically to one interest.

Case 7 A thin market and competing information

The facts. Three sites are advertised at PHP 10,000, PHP 12,000 and PHP 15,000 per square meter. A single recent transaction is reported at PHP 9,000, but its asset inclusions and terms are unverified. The seller asks the appraiser to average all four amounts and certify the result as market value.

Analysis. The simple average is PHP 11,500 per square meter. That arithmetic does not turn the observations into equivalent evidence. Three are asking amounts. The reported transaction needs verification. The rights, dates, site features and terms have not been matched.

Model response. "I will verify the reported transaction and analyze the listings as evidence of competition and seller expectations. The current information does not support certifying a mechanical average as a value opinion."

Next work. Seek relevant transaction records and other reliable sources, inspect comparability, investigate the market period and document uncertainty. A thin market requires appropriate judgment and scope, not automatic abandonment or invented precision.

Competency tested. Evaluate the quality of evidence before using statistics.

Case 8 Market value assessed value and simplified tax

The facts. A taxation exercise gives PHP 5 million as the market value, an applicable assessment level of 20 percent and an assumed basic tax rate of 1 percent applied to assessed value. No other taxes, levies, exemptions, discounts or penalties are included. These are given inputs, not a legal rate schedule.

Step 1 — Assessed value. PHP 5,000,000 × 0.20 = PHP 1,000,000.

Step 2 — Basic tax under the exercise. PHP 1,000,000 × 0.01 = PHP 10,000.

Step 3 — Interpret all three amounts. PHP 5 million is the supplied market value. PHP 1 million is the resulting assessed value. PHP 10,000 is the assumed basic tax only. None should be mislabeled as another.

Step 4 — Professional follow-up. An actual liability needs the applicable valuation and classification, assessment level, local rate and other rules. Later RPVARA and taxation lessons will develop those requirements.

Competency tested. Follow the calculation in order and distinguish its outputs.

Case 9 Inventory and absorption

The facts. A defined residential project segment has 48 available unsold units at a given date. Verified sales averaged six units per month over the relevant recent period. Assume no new supply, no cancellations and the same sales pace for this exercise.

Calculation. Forty-eight available units ÷ six sales per month = eight months of inventory at the assumed pace.

Interpretation. Eight months is a descriptive scenario ratio. It is not a guaranteed sellout date, the required exposure period for a particular unit, or a rule that values must fall by a stated percentage.

Follow-up. Investigate price changes, unit mix, payment terms, competing stock, reservations versus completed sales and whether the recent pace can reasonably continue. Change the input if the evidence warrants it rather than preserve the ratio for convenience.

Competency tested. Use a market indicator without converting it into an unsupported forecast.

9 Your value analysis worksheet

Read the fictional case and complete the responses before checking the model approach.

A developer spent PHP 11 million on a small mixed-use building and asks PHP 14 million. A recent accounting schedule shows a PHP 9 million carrying amount. A potential buyer owns the neighboring lot and claims operational benefits from assembly. Two competing buildings are listed at PHP 12 million and PHP 13 million. A bank requests a market value opinion as at 30 September 2026; inspection takes place on 10 October. No completed sale has yet been verified.

Identify what each stated amount represents. Which amounts are asking prices?

Define the interest, intended use, basis and valuation date that need confirmation.

Identify the evidence needed before relying on the neighbor's claimed advantage.

Explain why neither development cost nor carrying amount establishes the market value.

State how the two competing listings can help and what they cannot prove alone.

Describe the next investigation steps and the reporting treatment of material uncertainty.

10 Examination review

Read the subject basis and date together

Start by identifying the interest. Then identify the decision, governing value definition and date. Read the evidence for what it actually records. Investigate terms and circumstances before generalizing a transaction or applying a formula.

When a question provides several amounts, label them in your notes before calculating. Cost, asking price, achieved price, carrying amount and assessed value may be deliberately placed together. The correct response depends on the requested output.

For a numerical item, write the units next to the inputs. A monthly rent cannot be divided by an annual capitalization rate as if it were annual income. A 9 percent rate means 0.09 in division. A site-area ratio that includes a building remains a package ratio unless the components are properly separated.

Examination trap	Sound response
The building must be worth its cost.	Investigate utility, market conditions and the defined interest.
The largest asking price is market value.	Identify transaction status and analyze suitable evidence.
Everyone likes the project so demand is strong at any price.	Consider purchasing power, terms and verified market response.
The neighbor’s special plan sets the value for all buyers.	Identify the required perspective and availability of the benefit.
A weak market makes every sale forced.	Investigate compulsion and marketing constraints.
Quick sale always means a fixed discount.	Define the sale circumstances and support the analysis.
An average of unmatched amounts is a supported opinion.	Verify, compare and reconcile relevant evidence.
Assessed value and tax due are the same.	Apply the assessment level and then the specified tax rate.

Key terms

Term	Meaning for this lesson
Asking price	Amount requested by a seller or lessor.
Transaction price	Amount agreed in a particular exchange.
Historical cost	Expenditure recorded under its original scope and circumstances.
Value opinion	Supported estimate for the identified interest, basis and date.
Utility	Usefulness of the interest for a relevant function.
Scarcity	Limited suitable alternatives relative to the relevant market need.
Effective demand	Ability and willingness to pay on the relevant terms.
Market participant	A relevant participant for the market perspective required by the basis.
Contract rent	Rent payable under the actual lease.
Investment value	Value to an identified owner or prospective owner for its objectives.
Premise	Specified circumstances concerning use or disposal in the analysis.
Forced sale circumstance	Compulsion and restricted marketing requiring clearly defined analysis.
Assessed value	Market value multiplied by the applicable assessment level.
Carrying amount	Amount reported in the accounts under the applicable framework.
Inventory ratio	Available stock divided by a stated sales pace, with units and assumptions specified.

11 Original practice test

Choose one best answer for each item. Suggested study time: 35 minutes. Use the facts and given assumptions; do not invent additional rates. These are newly authored learning questions, not reproduced PRC examination items.

1. A developer spent PHP 14 million, asks PHP 17 million, and receives an appraisal of PHP 12 million. Which statement is most appropriate?

A. The appraisal cannot be below historical cost.
B. The asking price is the current value because it is the latest number.
C. The three amounts should always be averaged.
D. The amounts answer different questions and need matched scope and evidence.

2. A completed package sale includes land, a building and machinery. The subject is land alone. What is the best next action?

A. Divide the total by the lot area and call it a land-only value.
B. Subtract the machinery's new cost in every case.
C. Investigate inclusions and obtain support for an appropriate allocation.
D. Exclude the sale only because more than one asset is included.

3. A warehouse has ample floor area but inadequate vehicle access for its likely users. Which factor is most directly affected?

A. Utility for those users.
B. Historical bookkeeping cost only.
C. The report date only.
D. The owner's willingness to sell, with no effect on use.

4. One hundred households inquire about units, but only fifteen can meet the stated payment terms. Which conclusion is justified?

A. All one hundred are completed sales.
B. The inquiries and effective purchasing capacity should be distinguished.
C. The project has proved its value at any asking price.
D. Purchasing power is irrelevant once a property is desirable.

5. A seller willingly accepts a lower price after normal marketing in a declining market. No compulsion is established. Which statement is best?

A. The sale is forced solely because the price is lower.
B. A falling market alone does not establish forced sale circumstances.
C. The seller's disappointment sets market value at the old higher price.
D. The price must be ignored because the market is weak.

6. Which element is inconsistent with the ordinary market value framework if it materially determines the exchange?

A. Seller compulsion preventing proper marketing.
B. An identified valuation date.
C. Knowledgeable and prudent action.
D. Independent dealing between willing parties.

7. A neighbor can obtain operational savings unavailable to other purchasers. What should the appraiser clarify before including them?

A. Whether no purchaser ever considers operational benefits.
B. Whether savings automatically equal the full property value.
C. Whether the neighbor's asking price must replace all evidence.
D. Whether the assignment requires a market perspective or that identified purchaser's perspective.

8. Which request most directly describes investment value rather than general market value?

A. Estimate the interest's amount under the statutory market value definition.
B. Estimate market rent on specified equivalent lease terms.
C. Analyze what the interest is worth to a named operator for its own objectives.
D. Calculate the taxable amount from a given assessment level.

9. Shop A charges PHP 30,000 monthly for 24 months with two months free. Ignore discounting and other differences. What is its simple average monthly cash rent?

A. PHP 25,000.
B. PHP 28,000.
C. PHP 27,500.
D. PHP 30,000.

10. An assumed annual NOI is PHP 900,000 and the compatible capitalization rate is 9 percent. What is the illustrative capital value indication?

A. PHP 100,000.
B. PHP 10,000,000.
C. PHP 8,100,000.
D. PHP 81,000,000.

11. The same annual NOI is capitalized at 12 percent instead of 9 percent. With all other model assumptions unchanged, what happens?

A. The indication falls to PHP 7.5 million.
B. The indication rises to PHP 12 million.
C. The indication stays at PHP 10 million.
D. The indication becomes the accounting depreciation amount.

12. Separate assumed values are PHP 4 million and PHP 6 million; a consistently defined combined value is PHP 11.5 million. What is the additional combined amount?

A. PHP 500,000.
B. PHP 1,000,000.
C. PHP 2,500,000.
D. PHP 1,500,000.

13. A client requests "quick sale value" without a deadline or sale conditions. What is the best next step?

A. Clarify the constraint, deadline, marketing and consequences before analysis.
B. Apply a universal 30 percent discount.
C. Use carrying amount because it is already calculated.
D. Assume an auction always solves the definition.

14. Which statement best identifies the IFRS 13 fair value perspective introduced in this lesson?

A. The reporting entity's unique attachment to the asset.
B. A market-participant exit price under the applicable measurement requirements.
C. An automatic midpoint between seller and buyer requests.
D. Historical cost without considering the measurement date.

15. Market value is given as PHP 5 million and the assessment level is 20 percent. What is assessed value?

A. PHP 25,000,000.
B. PHP 100,000.
C. PHP 5,000,000.
D. PHP 1,000,000.

16. Using the preceding assessed value and a given basic tax rate of 1 percent, with no other components, what is the exercise's basic tax?

A. PHP 1,000.
B. PHP 50,000.
C. PHP 10,000.
D. PHP 100,000.

17. A historical-cost exercise gives PHP 6 million cost and PHP 2 million accumulated accounting depreciation. What does PHP 4 million represent?

A. A simplified carrying amount under the stated accounting model.
B. A mandatory current sale price.
C. A complete market appraisal.
D. The property tax payable.

18. Three asking amounts and one unverified reported sale are averaged. Which statement is correct?

A. The average automatically satisfies market value requirements.
B. The arithmetic does not resolve transaction status, comparability or verification.
C. Listings never provide useful information.
D. The largest amount must be used to protect the seller.

19. An exercise gives 48 unsold units and a verified pace of six sales per month, with no new supply or cancellations. What follows?

A. Every unit must lose eight percent of value.

B. Eight months is the legally required exposure for every unit.

C. Eight months of inventory at that assumed pace, without a guaranteed sellout date.

D. The inventory will certainly sell within six months.

20. A new road opens after the requested valuation date. Which action best preserves the earlier-date assignment?

A. Always insert the completed road as if it existed on the earlier date.

B. Change the valuation date without informing the client.

C. Ignore all information about roads regardless of relevance.

D. Investigate the facts and market expectations existing at the requested date.

Short answer practice

1. Explain why a well supported transaction price can still differ from an appraisal opinion for another date or basis.

2. A seller asks for a fixed 25 percent quick-sale deduction. Write the clarification questions and the reasoning you would give.

3. A named investor’s calculation is below market value. Explain why that difference can be reasonable, and identify what should be stated in each opinion.

12 Answers and explanations

Questions	Answer sequence
1–5	D C A B B
6–10	A D C C B
11–15	A D A B D
16–20	C A B C D

1. Answer D

Historical expenditure, a seller's request and an appraisal opinion are different measures. Compare scope, rights, dates and evidence. Neither a cost floor nor an automatic average is justified.

2. Answer C

The package needs investigation and a supported allocation or other suitable analysis. A total-site ratio is not automatically land-only, and a new-cost deduction is not universally correct. Package evidence need not automatically be discarded.

3. Answer A

The stated access limitation affects the storage and distribution function available to those users. It can matter to economic usefulness even when floor area and historical cost are unchanged.

4. Answer B

Interest is not the same as capacity and willingness to pay on specified terms. Investigate verified transactions and affordability instead of relabeling inquiries as sales.

5. Answer B

Examine compulsion and marketing constraints. A willing seller can transact under weaker current conditions. Neither an old preferred price nor the market direction alone resolves the analysis.

6. Answer A

Compulsion and inadequate marketing can require a constrained-sale analysis. The other listed elements support the statutory market value framework. See RA 12001 section 4(l).

7. Answer D

The perspective required by the basis determines which benefits belong in the analysis. Purchaser-specific benefits must be identified; they are not automatically general market value or the whole property value.

8. Answer C

The named operator's objectives identify an investor-specific question. The other requests concern market exchange, rent or assessment calculations.

9. Answer C

Twenty-two payments × PHP 30,000 = PHP 660,000. Divide by 24 occupied months to obtain PHP 27,500. This average is not a complete market rent opinion.

10. Answer B

PHP 900,000 ÷ 0.09 = PHP 10 million. The annual income and rate must be compatible. This is an indication under given inputs, not a full appraisal by itself.

11. Answer A

PHP 900,000 ÷ 0.12 = PHP 7.5 million. In this model a larger denominator reduces the indication. The rate change does not create an accounting amount.

12. Answer D

PHP 11.5 million − (PHP 4 million + PHP 6 million) = PHP 1.5 million. The difference does not determine its allocation between the parties.

13. Answer A

The sale circumstances must be defined. Neither a fixed deduction, carrying amount nor an auction label supplies the missing facts.

14. Answer B

The IFRS Foundation describes a market-based exit price for an orderly transaction at the measurement date. It is not an emotional amount, automatic compromise or simple historical cost.

15. Answer D

PHP 5 million × 0.20 = PHP 1 million. Assessed value is the taxable amount in this calculation, not tax payable. See RA 12001 section 4(b).

16. Answer C

PHP 1 million × 0.01 = PHP 10,000. The question supplies the rate and excludes other components; do not apply the rate directly to the PHP 5 million market value.

17. Answer A

The subtraction gives the illustrative carrying amount. A market opinion needs separate evidence and the defined interest, basis and date; tax payable requires its own calculation.

18. Answer B

An average cannot cure unmatched or unverified observations. Listings can inform competition and expectations, while achieved transaction evidence still needs verification and analysis.

19. Answer C

Forty-eight ÷ six = eight months. This is a defined ratio under assumptions, not a legal time rule, automatic value adjustment or guaranteed forecast.

20. Answer D

Relate the evidence to the earlier date. Later information may illuminate an earlier condition, but it cannot automatically replace that condition or justify changing the engagement silently.

Model short answers

1. The transaction records what particular parties agreed for particular rights, inclusions, terms and circumstances. An appraisal estimates an amount under the defined basis and date. A different interest, payment arrangement, market period or purchaser-specific benefit can change the comparison. Verify and analyze the transaction before generalizing its price.

2. Ask what interest and assets must be sold, why the seller is constrained, the deadline, the marketing permitted, the buyer investigation available and the consequences of failing to sell. A fixed deduction supplies no evidence of how those circumstances affect the amount. Define and support the requested constrained-sale analysis and distinguish it from the market value opinion.

3. A particular investor can use a higher required return, incur different conversion costs or obtain benefits different from market participants. Its result need not equal general market value. State the interest, date, basis, perspective and material assumptions for each opinion. Do not silently substitute one result for the other.

Model approach to the worksheet

The PHP 11 million is development expenditure. PHP 14 million, PHP 12 million and PHP 13 million are asking prices. PHP 9 million is the supplied carrying amount. None is a verified completed sale. Confirm the identified ownership interest and any leases or restrictions, the bank's intended use and users, the market value basis, and the 30 September valuation date.

Investigate the neighboring buyer's specific assembly opportunity and whether other relevant purchasers can obtain the same advantage. Check the competing buildings' rights, included assets, locations, condition and terms. Use their listings as evidence of available alternatives and seller expectations while seeking reliable transaction evidence.

The cost and accounting amount do not dictate the market opinion. Inspect and reconcile the subject, verify the evidence, investigate changes between valuation and inspection dates, and obtain appropriate specialist support for material issues. State the reasoning and uncertainty that remain after the investigation.

Use your results to review

For questions 1–2 and 17, revisit price, cost, scope and accounting amounts. For 3–8, review usefulness, demand and the perspectives required by the basis. For 9–12, redo the worked numerical cases with labeled units. For 13–14 and 20, review sale circumstances, fair value and the valuation date. For 15–16 and 18–19, review assessment and evidence quality.

Aim to explain every answer rather than memorize the letters. Sixteen correct answers out of twenty is a useful personal review target, followed by correction of every missed item. It is not a PRC passing rule or a validated forecast of examination performance.

Before you move to Lesson 3

You should now be able to explain why expenditure and asking price do not dictate an appraisal, identify a relevant market, distinguish a general market perspective from an individual investor's perspective, and interpret a numerical output correctly. Lesson 3 develops appraisal principles and highest and best use, including how to test competing uses of the same property.

13 References and examination status

Legal and standards concepts are paraphrased for study. Read the full cited provisions for professional application. The explanations, cases, worksheet and practice assessments are original material.

1. Republic Act No 12001

RPVARA. Sections 3(b) and (d), 4(b), 4(d), 4(l) and 4(r) support the market value, valuation and assessment distinctions.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

2. BLGF first edition valuation manual

Historical reference for the interaction of utility, scarcity, desire and purchasing power: introduction to IVSs 1, 2 and 3, printed page 38. Its standards numbering is not current.

https://blgf.gov.ph/wp-content/uploads/2015/11/Philippine-Valuation-Standards-Manual.pdf

3. Philippine Valuation Standards third edition

Official BLGF publication. Indexed IVS 102 appendix A10, A20, A30, A40, A50, A60, A70 and A120 supports recognition of bases and sale premises; printed pages 27 and 29–33.

https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

4. IVSC standards glossary

Use the named entries for introductory terminology, acknowledging IVSC as source. The public glossary is dated March 2020; current clause numbering should be read from the applicable edition.

https://ivsc.org/standards-glossary/

5. IFRS Foundation IFRS 13 Fair Value Measurement

Official explanation of the market-participant exit-price framework and the measurement date.

https://www.ifrs.org/issued-standards/list-of-standards/ifrs-13-fair-value-measurement/

6. IVSC edition announcement

Confirms the edition effective from 31 January 2025 and identifies IVS 102 as Bases of Value. Future exposure drafts are consultation material, not the governing text for this lesson.

https://ivsc.org/new-edition-of-the-international-valuation-standards-ivs-published/

7. PRC appraiser examination program for 2026

Coverage reference for appraisal foundations, theories and principles, standards and related professional applications.

https://www.prc.gov.ph/sites/default/files/REA%20exam%20program%202026.pdf

Preparation for 2027

The statutory concepts and cited standards foundations support the lesson. The curriculum sequence and study targets are editorial choices. The 2026 PRC coverage is a reference; it is not presented as a confirmed 2027 syllabus or a topic-specific question weight.

Before publication for the 2027 examination, check the official program, any revised table of specifications, current standards and relevant implementing issuances. For a professional engagement, use the complete applicable requirements. Classroom rates, time periods and stated values in this lesson are exercise inputs, not legal rate schedules or actual property appraisals.

REALEX

Lesson 3

Appraisal Principles and Highest and Best Use

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

An old building can earn a dependable rent while occupying land that could support a different development. The appraiser must determine whether continued use, renovation, conversion or redevelopment produces the strongest supported result. A larger project, a higher rent or a more ambitious drawing does not settle the question.

Lesson 1 identified the property interest and appraisal assignment. Lesson 2 separated price, cost and value. This lesson brings those ideas together through appraisal principles and highest and best use analysis. You will learn to compare realistic alternatives, test their constraints, and explain how the chosen use shapes valuation evidence.

Read the cases with a pencil and calculator. Label every amount, follow each assumption, and write a reason for the result. The aim is to develop the judgment needed for situational examination questions as well as a sound foundation for professional appraisal.

Your learning goals

- Apply substitution, anticipation, contribution, competition, change and related principles to property scenarios.
- Distinguish a reasonably supported use from an owner’s preference or an unsupported possibility.
- Evaluate legal permissibility, physical possibility, financial feasibility and maximum productivity.
- Explain the different questions asked when analyzing land as if vacant and property as improved.
- Compare retention, renovation and redevelopment using consistent dates, interests and cost treatment.
- Calculate contribution, residual land amounts, redevelopment thresholds and simple sensitivities.
- Write a supported use conclusion and identify the evidence still needed.

Study plan: Use three sessions. First study the principles and four tests. Next work through the numerical cases. Finally complete the worksheet and practice test before reading the answers. Allow about three to four hours, with extra time for the integrated case.

1 How appraisal principles guide judgment

An appraisal principle describes an economic relationship that helps explain market behavior. It does not supply a ready-made price. The same property can be influenced by several principles at once: an announced road may change expectations, new shops may increase competition, and an oversized building may contribute less than its construction cost.

The principles provide questions to investigate. If buyers can obtain similar utility elsewhere at a lower price, what makes the subject competitive? If a renovation raises rent, is the increase sufficient to justify its cost and risk? If a neighborhood is changing, which uses are supported by present market evidence and credible expectations?

BLGF's historical first edition identifies supply and demand, competition, substitution, anticipation and change among recognized valuation principles. Its old standards numbering is not used as the current professional framework here. [1, Concepts Fundamental to Generally Accepted Valuation Principles, paragraph 2.7] The original explanations below apply these economic ideas to fictional property situations.

Substitution and competing alternatives

Substitution asks what a purchaser could obtain instead of the subject. A relevant substitute offers comparable usefulness, rights and availability. The comparison must also consider condition, location, payment terms, time, inconvenience and risk. Two properties can share a floor area and still serve different needs.

Suppose a small distribution business needs a warehouse with truck access, secure storage and dependable power. A cheaper warehouse without legal truck access may be a poor substitute. A more expensive completed warehouse may compete effectively with a cheaper vacant site if construction would take two years and expose the buyer to approval and completion risks.

The principle helps explain why appraisal investigates alternatives instead of accepting the seller's target price. It also supports comparison with the cost of obtaining equivalent utility. Equivalent utility does not require an exact physical replica: a modern, smaller building may perform the required function more efficiently.

For an examination question, ask which alternative actually meets the participant's needs. Do not assume that the lowest advertised price is always the best substitute. Determine whether the rights, utility and timing are sufficiently comparable. The IVSC's public glossary recognizes the role of time, inconvenience and risk in the economic foundation of the cost approach; acknowledge that the glossary is dated March 2020. [2, Cost Approach]

Anticipation and expected benefits

Anticipation connects present value to expected future benefits. Those benefits can include rental income, occupation, productive use, resale and other advantages appropriate to the interest and basis. A buyer evaluates what the property is expected to provide, not simply what the owner paid for it.

A leased shop may have several years of contracted rent followed by a change to market rent. A vacant development site may provide no immediate income but offer a credible future development opportunity. Both require analysis of timing, costs and uncertainty. Expected benefits must be considered alongside the obligations required to obtain them.

A transport announcement can influence expectations before construction is finished. The appraiser should investigate whether participants regard the scheme as credible, its likely timing, and how it would affect access to the particular site. A press release does not justify inserting the full value of an operating station into a present appraisal.

Do not equate anticipation with optimism. A forecast is useful only when its assumptions are supported and its timing and risk are reflected. In a numerical question, future receipts and immediate amounts must be brought to a common date before comparison. Later lessons develop the full time value of money calculations.

Contribution and the whole property

Contribution concerns the effect of a component on the value of the whole property. An improvement's cost and its contribution can differ. Buyers may value an additional parking area highly, value an elaborate decorative entrance modestly, or regard a deteriorated structure as an expense to remove.

A swimming pool costing PHP 1.2 million does not automatically add PHP 1.2 million to a house. Its contribution depends on the relevant buyers, competing properties, operating costs, condition and suitability. An appraiser should investigate a market response rather than use a fixed percentage of cost.

A before-and-after comparison can illustrate contribution when the two situations are consistent and other differences are controlled. If an otherwise comparable property is supported at PHP 8.0 million without an addition and PHP 8.7 million with it, the indicated contribution is PHP 700,000 under those assumptions. This is not a claim that every addition of that type contributes the same amount.

Removing a component can also affect the whole. Loss of a loading bay may substantially reduce warehouse utility. A small component can therefore contribute more than its standalone replacement cost. Conversely, a large building may contribute little when its layout conflicts with the use supported by the market.

Competition and market response

Competition concerns the response of buyers, tenants and suppliers to available alternatives and expected returns. Strong returns may attract new supply, but the response can be delayed by land availability, approvals, financing and construction. Several developments opening together can compete for the same limited demand.

A proposed apartment scheme should be evaluated against completed units, projects under construction and credible future supply in its relevant segment. Advertised rents alone do not show achieved income. Investigate incentives, occupancy, lease terms and absorption, meaning the pace at which space or units are taken up.

Competition may reduce rent, lengthen letting periods or change the specification tenants expect. It does not mean that every new competitor causes a fixed percentage loss in value. The appraisal needs evidence of the effect on the subject's use, income or market position.

An examination item may describe unusually high rents followed by several competing projects. Recognize competition and investigate whether the high rents are sustainable. Avoid capitalizing a temporary peak as if it were a permanent stabilized income.

Change and the effective date

Change describes the effect of evolving social, economic, governmental and environmental conditions. Employment, transport, demographics, technology, land-use controls and hazards can change the uses a market supports. A building that served its users well twenty years ago may no longer offer a competitive layout.

The effect must be examined at the appraisal's effective date. A future change can influence current value through credible participant expectations, but an event occurring later should not automatically be treated as

already completed. Distinguish what was known, what was anticipated, and what actually existed at the requested date.

A new road can improve accessibility while diverting traffic away from an existing shop frontage. An appraiser needs to investigate the actual relationship. Describing every infrastructure investment as a benefit overlooks the possibility of a different local outcome.

2 Related principles and their practical limits

Supply demand and effective purchasing capacity

Supply and demand concern available alternatives and the willingness and ability of participants to acquire them on relevant terms. More inquiries are not necessarily more effective demand. A project can attract interest while remaining unaffordable to its target occupants.

Specify the relevant market. Affordable rental units and luxury serviced apartments do not necessarily compete for the same households. Supply in one segment should not be used automatically to explain price movements in another. The location, unit size, tenure, price and date matter.

Prices need not respond in direct proportion to a numerical change in supply or demand. A ten percent increase in available units does not establish a ten percent decline in value. The appraiser investigates participant behavior, transaction evidence and adjustment of competing offers.

Balance and the scale of improvements

Balance concerns how the elements of a property work together. The amount of building, access, parking, services and open space should suit the use and market. More of one element can reduce the usefulness of another: maximizing floor area can leave inadequate access or circulation.

Consider a small retail site. Adding a mezzanine may provide extra floor area, but customers may place greater value on convenient parking and ground-floor visibility. A scheme that sacrifices those features to increase total area can weaken its economic performance.

Balance does not require equal expenditure on land and buildings. It asks whether the combination produces useful and economically supported accommodation. Appraisal Institute Guide Note 10 identifies balance, contribution and externalities alongside other fundamental principles; its US practice discussion is a conceptual reference, not a Philippine regulatory rule. [3]

Increasing and diminishing returns

Increasing and diminishing returns concern the additional benefit produced by successive inputs. An early improvement may generate a strong incremental benefit, while later additions contribute progressively less. The comparison should focus on the next increment as well as the total result.

For example, the first covered parking bay can make a small rental property substantially more attractive. A sixth bay may add little if the likely occupants need only two. The appraiser must examine actual market requirements instead of treating each bay as equally productive.

This is a useful way to evaluate over-improvement. If an extra floor costs more than its supported contribution to the whole, it may be an uneconomic addition even though the building’s total value increases. A positive increase in value alone does not show that the expenditure is justified.

The principle does not mean that all larger buildings are over-improved. Additional scale can spread fixed costs and serve unmet demand. Compare the particular increments using consistent assumptions, and investigate the reason the marginal benefit changes.

Conformity progression and regression

Conformity concerns the fit between a property's characteristics and the expectations of the relevant market. Similarity can support an established residential market, while a carefully designed distinctive feature may also command demand. Conformity should not be interpreted as an instruction to make every property identical.

Progression and regression are conventional study labels for the influence of surrounding property characteristics. A modest house may benefit from an attractive, well-maintained setting. A very expensive house may receive less recognition for its improvements when surrounding accommodation and buyer budgets support a lower price range.

These labels explain possible market effects. They do not supply automatic percentage adjustments, and they should not be used to make judgments about the personal worth of residents. Describe observable characteristics, services, access, condition and market demand.

A strong location does not eliminate a subject's defects. Nor does a weaker location prove that every improvement contributes nothing. Verify the evidence and explain the interaction between the property and its surroundings.

Externalities and influences beyond the boundary

Externalities are effects arising outside the property. Improved public transport, attractive public spaces or a dependable employment center can support demand. Noise, pollution, congestion or a loss of access can weaken it. The result depends on the property and use affected.

A workshop may benefit from a road used by freight traffic, while nearby houses may be adversely affected by its noise. The same external condition can have different consequences for different participants. Location evidence must be related to the use being analyzed.

Distinguish an external effect from a defect within the property. An obsolete internal layout may be addressed through renovation; traffic diversion outside the boundary may require a different strategy. The distinction helps explain which costs and remedies should be investigated.

Surplus productivity and the return attributable to land

Land supports a use, but the completed development's receipts must also compensate other inputs. Construction, professional services, operating costs, time and participant returns consume part of the economic benefit. What remains attributable to the land depends on how these items are defined and measured.

A simplified development residual starts with the value of a completed scheme and deducts compatible allowances for the non-land inputs. This can show how competing uses imply different amounts available for the land. It is sensitive to small changes in selling prices, costs and timing.

Do not deduct an item twice. If a present-value model already includes construction costs, do not subtract those costs again from its stated net result. If a developer's profit allowance is explicitly included, understand whether the chosen discount rate also embodies that same allowance. A classroom residual can be useful without being a complete development valuation.

Principle	Question to ask
Substitution	What alternative provides comparable utility and rights?
Anticipation	Which future benefits are supported, and when will they arise?
Contribution	How does the component affect the whole property?
Competition	How will available alternatives influence demand and income?
Balance	Does the combination and scale fit the use and market?
Change and externalities	Which dated internal or external conditions affect the subject?
Surplus productivity	What remains for land after compatible non-land allowances?

3 The meaning of highest and best use

Highest and best use, abbreviated HBU or HABU in study notes, concerns the use that supports the highest value from the relevant participant perspective. The PVS third edition addresses it as a premise of value in the appendix to IVS 102. The use must meet physical, legal and financial requirements; the current use can qualify when it is optimal. A change of use also requires consideration of conversion costs. [4, IVS 102 appendix A90 and A100]

For market value analysis, evaluate uses supported by market participants. A particular owner's preference, a sentimental attachment or a special operating advantage can be relevant to another assignment perspective, but it does not by itself establish general market use. Lesson 2 explained why an individual investment decision can differ from a market value opinion.

The conventional four-test framework organizes the investigation into legal permissibility, physical possibility, financial feasibility and maximum productivity. The first two tests can be considered together because legal and physical constraints interact. Financial comparison follows only for credible alternatives that survive those constraints. An examiner may use different wording while testing the same underlying reasoning.

A supported alternative must be reasonably probable

A possible use is one that can be imagined. A reasonably probable use has evidence supporting its practical availability and market acceptance. An artist's impression of a tower is not evidence that the land can legally or economically support one.

Reasonable probability concerns the use, scale and timing. A commercial scheme may be credible after a lease expires, but immediate redevelopment may be unavailable. A larger building may physically fit while needing unverified access arrangements or public approvals. Explain those dependencies before comparing values.

A proposal to change restrictions deserves investigation when supported by evidence of a realistic process and participant expectations. An application is not an approval. Describe the present controls, the proposed change, its likelihood, time and cost. If a separately instructed scenario assumes approval, make that assumption explicit and keep it distinct from the property's actual status.

Do not dismiss all future changes merely because they are not yet completed. Market participants can price credible development potential. Equally, do not treat speculative potential as unconditional permission. The appraisal must explain why the expectation is relevant to the particular date and interest.

Highest value is different from several tempting measures

The highest selling price of a finished scheme may require substantially higher development expenditure. The highest annual gross rent may have greater vacancy and operating costs. The highest yield percentage may arise from a smaller or riskier project. None of these measures alone establishes maximum productivity.

The comparison must concern the same subject and date, with the consequences of each use included. For vacant land, comparable residual amounts can help identify the use producing the greatest supported land value. For improved property, compare continued use and feasible changes after allowing for the relevant costs, delay and risk.

A short payback period can be attractive to an investor, but it is not automatically the criterion for highest and best use. Likewise, highest and best use is not a synonym for the densest allowable development or the greatest number of units. Density is one design input whose economic consequences still need testing.

Land as if vacant and property as improved

The as-if-vacant analysis asks how the site would best be used if available without its existing improvements. This is an analytical premise. It does not assert that the buildings have already disappeared, and it does not remove the property's actual legal restrictions.

The as-improved analysis asks what is best for the property with its improvements and relevant obligations in place. Alternatives may include continued use, repair, renovation, adaptation, expansion, demolition or replacement. Costs and timing can make continued use more valuable now even when another use would be preferred for a vacant site.

Suppose a cleared site could support shops and apartments, but the existing warehouse earns strong rent under a lease that cannot simply be terminated. The site as if vacant and the property as improved may lead to different conclusions. The improvement and the lease are part of the current appraisal problem.

The Appraisal Institute of Canada's educational discussion illustrates the importance of distinguishing these analyses and connecting use conclusions to comparable selection. Its article discusses older Canadian standards; those clause numbers are not Philippine requirements. [5] The distinctions in this lesson are taught through new scenarios and do not reproduce that article's case.

4 Applying the legal and physical tests

Legal permissibility requires evidence of the relevant controls

Begin with the property interest established in Lesson 1. Determine what the holder may do and what restrictions affect that ability. Ownership of land does not mean that every proposed development is permitted. A lease may authorize occupation without authorizing structural alteration or redevelopment.

Investigate the applicable zoning ordinance, the site's classification and any conditions affecting the proposed use. Check whether the proposal requires further permissions and whether existing rights or obligations prevent immediate implementation. A land-use plan, a zoning designation, a locational clearance and a building permit serve different functions; one should not be treated as proof of all the others.

Relevant constraints can include title annotations, easements, contractual restrictions, approved development conditions, heritage protection, environmental requirements and rights of other occupants. Which controls apply is a site-specific legal question. Obtain the current documents and appropriate specialist advice for a material unresolved issue.

The Local Government Code provides a statutory framework for local land-use planning and reclassification, but an appraiser must still verify the operative local ordinance and applicable national rules. [6, section 20] This lesson uses fictional controls in its cases instead of presenting one setback, height or parking figure as a universal Philippine requirement.

Agricultural reclassification and conversion

Local reclassification and permission to convert agricultural land are distinct matters. A local commercial designation should not automatically be treated as authority to implement a non-agricultural project. In Chamber of Real Estate and Builders Associations Inc v Secretary of Agrarian Reform, the Supreme Court discussed the distinction and DAR's conversion authority. [7, G R No 183409, 18 June 2010]

For appraisal, establish the land's history, coverage and operative approvals. Investigate whether conversion requirements, exemptions, exclusions or other restrictions apply to the particular parcel. Do not assume that every parcel with a farming history has identical legal status.

The relevant examination competency is to recognize the need for verification and avoid treating one document as permission for everything. Detailed current agrarian procedures belong in the agrarian legislation lesson. Here, a numerical commercial residual cannot overcome an unresolved legal constraint.

Existing use and legal nonconformity

A use that predates a change in controls may have a lawful nonconforming status under the applicable rules. This differs from a use that was unlawful from the start. Verify the facts and the ordinance rather than infer status from age or occupancy.

A lawful existing use may be allowed to continue but face restrictions on expansion, alteration or rebuilding after damage. Such conditions can influence useful life, risk and alternative uses. A permit for the original building should not be assumed to authorize every later addition.

If the legal position remains unresolved, explain how it affects the analysis and what information is needed. A material uncertainty should not vanish because a spreadsheet produces a large positive result.

Physical possibility concerns a workable scheme

Evaluate size, shape, frontage, topography, ground conditions, access, drainage, utilities and the ability to accommodate a workable layout. Total land area alone does not establish development capacity. A long narrow parcel can have substantial area yet be unsuitable for a use requiring wide vehicle turning movements.

Separate gross site area, developable area, building footprint, gross floor area and lettable or saleable area. These are different denominators. An access strip or protected area may remain part of the titled parcel while being unavailable for building. Circulation and service space may be necessary but produce no direct rent.

A physically possible scheme should reflect engineering requirements and participant practicality. In principle, expensive foundations or retaining works can make construction possible. Their cost and risk must then enter the financial test. Physical difficulty and financial infeasibility are connected, but they are not the same finding.

An appraiser can identify a need for structural, geotechnical or environmental investigation without claiming expertise in those disciplines. If a warehouse conversion depends on the existing structure supporting new loads, obtain relevant specialist evidence. A visual inspection is not a structural certification.

Document the outcome of each test

For each alternative, state whether it is supported, rejected or conditional, and explain why. “Commercial use is permitted” is incomplete if the proposed height or access remains unresolved. A finding should identify the particular scheme rather than a broad label that conceals important differences.

Where a fatal constraint is verified, reject the alternative in the present analysis. Where a constraint can be resolved with reasonable probability, analyze the evidence, costs and timing. Where the information is insufficient, record the uncertainty and obtain it before treating the use as established.

Evidence	What it helps verify
Title lease and restrictions	Rights, obligations and availability of the interest.
Current ordinance and relevant approvals	Permitted use, development conditions and pending permissions.
Survey and site measurements	Boundary, shape, frontage and usable geometry.
Access and servicing evidence	Lawful access, circulation and utility availability.
Appropriate specialist reports	Structural, ground, drainage or environmental constraints.

5 Testing financial feasibility and maximum productivity

Demand must support the proposed accommodation

A physically workable, permitted scheme can still fail financially. Estimate the likely occupants or purchasers, what they require, the terms they can support, and how quickly the space can be taken up. Market research gives the revenue forecast an economic foundation.

For rentals, investigate achieved rents, incentives, occupancy and operating expenses for relevant competing properties. For sale developments, investigate realized prices, unit sizes, payment terms and absorption. Separate completed transactions from listings and expressions of interest.

The test should reflect the appropriate participant perspective. An unusually low financing cost available only to one owner does not automatically establish feasibility for typical market participants. An individual investor’s feasibility study can legitimately use its own requirements when that is the stated question.

Allow for the complete economic burden

Construction cost is only part of the burden. Depending on the scheme, other items can include demolition, remediation, professional fees, approvals, infrastructure, marketing, holding costs and the return required for development risk. Revenue also has a timing and risk profile.

Use a coherent model. An immediate, stabilized income divided by an appropriate capitalization rate answers a different question from phased development receipts discounted over several years. Do not compare one alternative at a future completion date with another at the present date without making them compatible.

Opportunity cost matters. Land already owned is not economically free because no new cash payment is needed. A feasible alternative must be assessed against the value of retaining or disposing of that land or property. Sunk historical expenditure also does not guarantee that redevelopment should proceed.

A project can have positive operating income while failing to compensate its development expenditure and land opportunity cost. Feasibility concerns the economic whole, not simply the presence of rent.

A simplified residual for classroom comparison

For the cases in this lesson, a land residual means the amount left for land after deducting stated non-land allowances from a compatible completed-development value. Every input is supplied for learning. Unless a case says otherwise, the completion value and allowances have already been expressed at the same valuation date, with timing and required participant return treated consistently.

Residual land amount = completed-development value − total non-land allowances.

This is a simplified comparison tool. A positive residual is not by itself proof of feasibility at the seller's asking price or proof of market value. Compare it with the relevant land opportunity amount, investigate all constraints, and test the assumptions. A fully developed residual or discounted cash flow model requires more detailed treatment.

If two alternatives imply PHP 6 million and PHP 8 million for the same vacant site under consistent, supported assumptions, the second supports the higher residual. If that second use is prohibited or physically unsuitable, it cannot be selected merely because the arithmetic is larger.

Maximum productivity compares the surviving alternatives

Once feasible alternatives have been identified, compare the value supported by each. The conclusion should explain why the selected use outperforms credible alternatives. A market-supported use need not be the most sophisticated or expensive scheme.

For as-improved analysis, redevelopment must be considered after the costs and effects of changing the property. A cleared-site value is not directly comparable to the value of the standing improved property until necessary clearance and other conversion effects are handled. Similarly, a renovated value must be compared after the costs required to obtain it.

The difference can be small. A preferred alternative with only a narrow advantage deserves careful sensitivity analysis. A tiny numerical lead under uncertain inputs should not be presented as a robust result.

Sensitivity and the strength of the conclusion

Sensitivity analysis changes one or more assumptions to show how the result responds. It can identify the amount of cost increase, price reduction or delay needed to reverse a choice. It does not assign a probability to that change unless a separate supported probability model is developed.

Keep a clear baseline, change a defined input, recalculate and explain the consequence. If the scheme preferred at PHP 40 million completion value ceases to dominate at PHP 37 million, the decision depends materially on achieving the revenue assumption.

Changing several inputs at once can produce a useful downside scenario, but it should not be confused with isolating a single input's effect. Identify whether the result reflects a price change, a cost change or both.

The appraiser should then investigate the inputs that matter most. Sensitivity is most useful when it directs further evidence gathering, rather than merely adding a long table of unsupported forecasts.

6 Existing improvements timing and valuation evidence

Retention repair conversion and replacement

An as-improved analysis begins with what exists, but it does not stop there. Identify realistic options. Continued occupation may require routine repairs. Renovation may improve the existing function. Conversion may change the function. Redevelopment may require removal and new construction.

Compare the options on consistent terms. If continued-use value includes a repair allowance, do not deduct that allowance again. If a redevelopment amount is already net of demolition and development expenditure, do not repeat those deductions. Every amount should have a label explaining what it includes.

An existing building can provide a positive contribution even when the vacant land would be developed differently. The building may earn income while the larger project remains uneconomic or unavailable. Conversely, an obsolete structure can burden the site through removal costs and delay.

Physical condition, remaining economic usefulness and actual occupation must be investigated. Accounting depreciation is not a substitute for this analysis. A building with a low book value can still provide useful accommodation; a high carrying amount can remain unsupported by market demand.

Interim use and the option to wait

An interim use serves the property while a longer-term use is not yet justified or available. It should be identified by its function, expected period and eventual transition. Temporary income can be relevant even when it does not represent the site's ultimate development.

For example, a vacant parcel may be used for permitted temporary parking while a supported future development awaits demand or servicing. The analysis must consider the income, operating and holding costs, termination arrangements, clearance costs and the timing and uncertainty of the future project.

Waiting is not automatically best because prices might rise. Nor is immediate construction automatically best because land is vacant. Evaluate the supported alternatives at a common date, including the costs and benefits of delay. Avoid indefinite forecasts that turn a weak immediate proposal into a guaranteed future success.

Excess land and surplus land

Excess land is conventionally used for land beyond the needs of the existing use that can support a separate use or disposition, subject to legal and physical investigation. Surplus land also exceeds present needs but cannot necessarily be independently developed or disposed of. The distinction turns on practical separation and use, not simply unused area.

A rear portion of a large parcel might look vacant yet have no lawful independent access. It could support expansion or contribute to the whole without being a separately marketable development site. A corner parcel with independently accessible frontage might present a different situation.

Verify subdivision permissions, access, services, restrictions and market demand before concluding that an area has standalone potential. Avoid counting the same area in both the whole-property value and a separate additional amount.

Assembly and participant perspective

Combining parcels can create a layout or access that neither supports alone. That opportunity requires analysis of acquisition, permissions, timing and assembly risk. It may change the uses reasonably available to the property.

Benefits available only to one neighbor can differ from opportunities available to the wider market. Identify the basis and participant perspective. Do not automatically allocate the full combined benefit to one parcel or treat a specific purchaser's proposed payment as a general market conclusion.

The PVS third edition recognizes that an asset's use on a standalone basis can differ from its use within a group. [4, IVS 102 appendix A90.05] The appraisal should make the valuation unit clear before considering assembly benefits.

Use analysis must agree with the valuation evidence

Highest and best use influences which comparable transactions are relevant. A legally available residential site should not be valued as if it had the same development capacity as an approved commercial site merely because they are adjacent. Analyze the difference rather than selecting only the higher prices.

The income forecast must also agree with the conclusion. If the preferred use is warehouse occupation for a remaining lease period, do not capitalize residential apartment rents as though conversion were already complete. If the scheme requires phased letting, account for that transition.

The cost approach should recognize whether the improvements provide the utility supported by the use analysis. A reproduction estimate for an obsolete layout may say little about what participants would pay for that utility today. Method selection and reconciliation are developed in later lessons; the present requirement is internal consistency.

A supported conclusion is more than a ticked box. Describe the alternatives tested, the evidence that eliminated them, the economic comparison and any material condition. If a final opinion depends on a specialist report or unresolved approval, the dependence should be clear.

7 Worked appraisal cases

All properties, permissions, values and rates in these cases are fictional teaching inputs. They are not actual appraisals or legal rate schedules. Numerical rankings assume the stated rights, dates and non-numerical tests are satisfied unless the case identifies a contrary condition.

Case 1 Equivalent utility and a construction alternative

The facts. A purchaser can acquire a completed warehouse providing the required utility for PHP 12.0 million. A competing vacant site costs PHP 4.0 million. A comparable new warehouse would require PHP 7.0 million construction expenditure and PHP 1.6 million of compatible allowances for fees, time and risk. Assume identical useful rights and no other differences.

Step 1. Calculate the stated construction alternative: PHP 4.0 million + PHP 7.0 million + PHP 1.6 million = PHP 12.6 million.

Step 2. Compare the alternatives. The completed warehouse is PHP 600,000 below that total and is immediately available. It can be competitive despite costing more than land and basic construction alone, which total PHP 11.0 million.

Step 3. State the interpretation. Substitution compares the full burden of obtaining equivalent utility. Omitting fees, delay and risk makes the alternative look artificially cheap.

Professional follow-up. Verify rights, condition, location and the allowances. The comparison explains a participant's choice; it does not establish the completed property's market value from only these two numbers.

Case 2 Contribution and an uneconomic improvement

The facts. A supported comparison under consistent conditions indicates PHP 8.0 million for a property without a proposed addition and PHP 8.7 million after that addition. The total immediate addition cost is PHP 900,000. Ignore delay and other effects for this exercise.

Step 1. Contribution = PHP 8.7 million − PHP 8.0 million = PHP 700,000.

Step 2. Compare contribution with cost. PHP 700,000 − PHP 900,000 = negative PHP 200,000. The addition raises total value but does not recover its stated cost in this simplified comparison.

Step 3. Explain the principle. The component's effect on the whole differs from its expenditure. "The property will be worth more" is insufficient justification when the cost exceeds the increase.

If an owner obtains personal benefits from the addition, its individual decision can differ. State that perspective separately. Do not convert a personal preference into a market contribution claim.

Case 3 Successive additions and diminishing returns

The facts. Each additional accommodation block costs PHP 1.0 million. Under a consistent supplied whole-property comparison, the first block adds PHP 1.6 million, the second PHP 1.2 million and the third PHP 700,000. Assume legal and physical capacity for all three.

Step 1. Calculate the marginal amount above cost: first block PHP 600,000; second PHP 200,000; third negative PHP 300,000.

Step 2. Calculate the cumulative result after two blocks: contribution PHP 2.8 million less cost PHP 2.0 million = PHP 800,000. After three blocks: contribution PHP 3.5 million less cost PHP 3.0 million = PHP 500,000.

Step 3. Compare the choices. The third block still adds value to the property but reduces the cumulative amount above cost by PHP 300,000. Two blocks produce the stronger net result under the stated assumptions.

The declining marginal contribution illustrates diminishing returns. Before using the result professionally, investigate demand and whether the supplied incremental comparisons isolate the additions reliably.

Case 4 Rejecting an unsupported use

The facts. An 800-square-meter site is being considered for a small apartment building, a workshop and a high-rise hotel. The supplied current controls permit apartments and workshops but prohibit the proposed hotel. There is no evidence supporting a change. An engineer's supplied layout confirms apartments fit. The workshop cannot accommodate the required turning space within the boundary, and no alternative access is available.

Step 1. The hotel fails the legal test for the present analysis. A high projected revenue cannot remove that constraint.

Step 2. The workshop fails the supplied physical test. Its permitted use category does not establish a workable scheme on this parcel.

Step 3. The apartment proposal survives those two tests. Its financial feasibility and comparative productivity remain to be investigated. Surviving two tests is not a completed HBU conclusion.

Model response. "On the supplied evidence, the apartment scheme is the remaining candidate. I would verify demand, costs and participant returns before concluding that it is financially feasible and maximally productive."

Case 5 Two feasible uses for a vacant site

The facts. A vacant site can legally and physically support either neighborhood retail or rental apartments. Supplied market research supports both schemes. The table gives all amounts in PHP millions at one common valuation date. Completion values and non-land allowances are compatible; no additional construction, timing or participant-return deduction is needed in this exercise.

Input in PHP millions	Retail	Apartments
Completed-development value	40.0	34.0
Construction	25.0	19.0
Fees approvals and infrastructure	3.0	2.5
Compatible timing risk and return allowances	4.0	3.5
Total non-land allowances	32.0	25.0
Residual amount for land	8.0	9.0

Step 1. Retail residual: PHP 40.0 million − PHP 32.0 million = PHP 8.0 million. Apartment residual: PHP 34.0 million − PHP 25.0 million = PHP 9.0 million.

Step 2. Assume the supplied land opportunity amount is PHP 7.0 million. Both residuals exceed that amount under the stated feasibility model. Apartments support PHP 1.0 million more for the land.

Step 3. Select the stronger candidate. Apartments have the lower completed-development value yet the higher land residual. The cost difference changes the ranking.

Step 4. Preserve the limit. These are simplified supported exercise inputs. A real conclusion needs verification of the market, scheme and allowances, detailed timing where material, and sensitivity analysis. A residual is not a promise that a purchaser will pay that amount.

Case 6 Revenue sensitivity reverses the ranking

Use Case 5. Change only the apartment completed-development value. Reduce it by five percent while retaining its PHP 25.0 million non-land allowances and the retail baseline.

Step 1. Apartment completion value: PHP 34.0 million × 0.95 = PHP 32.3 million.

Step 2. Revised apartment residual: PHP 32.3 million − PHP 25.0 million = PHP 7.3 million.

Step 3. Retail remains PHP 8.0 million. Retail now has the higher residual by PHP 700,000. Both still exceed the assumed PHP 7.0 million land opportunity amount.

Step 4. Find the ranking threshold. Apartments match the retail residual when their completion value is PHP 25.0 million + PHP 8.0 million = PHP 33.0 million. A PHP 1.0 million decline from PHP 34.0 million, or approximately 2.94 percent, removes the apartment advantage.

Interpretation. The original ranking is sensitive to revenue. This does not prove that the downside will occur or that both schemes carry identical risk. It identifies the evidence that needs particular attention.

Case 7 Renovation and redevelopment of an improved site

The facts. A property has a supplied continued-use value of PHP 6.2 million. Renovation would support PHP 7.8 million after work; compatible immediate allowances for obtaining that result total PHP 1.2 million. The site, cleared and available for a supported alternative use, has a supplied value of PHP 7.1 million. Demolition and clearance total PHP 800,000. All amounts are expressed at the same date. Assume legal occupation and no remaining lease or other costs.

Step 1. Retention: PHP 6.2 million. No additional repair deduction is required by the exercise.

Step 2. Renovation comparison: PHP 7.8 million − PHP 1.2 million = PHP 6.6 million.

Step 3. Redevelopment comparison through cleared-site disposal: PHP 7.1 million − PHP 800,000 = PHP 6.3 million. The cleared-site amount already reflects its development potential; do not add a separate finished-development value.

Step 4. Rank the options. Renovation is strongest at PHP 6.6 million, followed by clearance at PHP 6.3 million and retention at PHP 6.2 million. The as-improved choice is renovation under the inputs, although the vacant site is associated with a different use.

Step 5. Interpret the margin. Renovation exceeds retention by PHP 400,000, and clearance by PHP 300,000. Additional unallowed costs or weaker renovation demand could change the result. Investigate them before making a professional conclusion.

Case 8 Clearance costs and a redevelopment threshold

The facts. Continued-use value is PHP 6.0 million. A cleared-site value for a supported different use is PHP 7.4 million. Clearance and all other immediate conversion allowances total PHP 1.0 million. Assume consistent dates and no omitted obligations.

Step 1. Net clearance option: PHP 7.4 million − PHP 1.0 million = PHP 6.4 million. It exceeds retention by PHP 400,000.

Step 2. Find the cost threshold. PHP 7.4 million − PHP 6.0 million = PHP 1.4 million. At total conversion allowances of PHP 1.4 million, the options are equal in the exercise.

Step 3. If those allowances rise to PHP 1.6 million, the clearance result becomes PHP 5.8 million. Retention then exceeds it by PHP 200,000.

The standing building can be a burden relative to the cleared-site premise without making the property worthless. A negative contribution in one comparison must not be confused with a negative value for the whole property.

Case 9 Timing an interim use

The facts. A permitted temporary use provides net receipts of PHP 300,000 at the end of each of the next two years. A supported net disposal amount at the end of year two is PHP 5.8 million. It already includes terminal clearance and other disposal allowances. An immediate supported disposal amount is PHP 5.2 million. Use a supplied ten percent annual discount rate consistent with the receipts. There are no other cash flows.

Step 1. Year-one receipt at the present date: PHP 300,000 ÷ 1.10 = PHP 272,727.27.

Step 2. Year-two receipt and disposal: (PHP 300,000 + PHP 5,800,000) ÷ 1.10^2 = PHP 5,041,322.31.

Step 3. Present total for the waiting option, using unrounded amounts until the final result: PHP 5,314,049.59.

Step 4. Compare with immediate disposal. Waiting exceeds PHP 5.2 million by approximately PHP 114,049.59. That is a narrow advantage under assumed receipts and terminal value.

Step 5. Test omitted costs. If an additional PHP 150,000 must be paid immediately to establish the temporary use, its present total falls to PHP 5,164,049.59. Immediate disposal becomes stronger by approximately PHP 35,950.41.

The interim strategy depends on time, costs and future value. Merely adding future receipts to an undiscounted future sale amount would overstate its present attractiveness.

Case 10 A lease prevents immediate redevelopment

The facts. A completed apartment conversion looks physically workable and is permitted under supplied land-use controls. The property is occupied under a verified five-year lease. The lease does not allow unilateral early termination by the owner. No agreed surrender has been obtained.

Analysis. Immediate vacant possession is not established. Investigate the lease interest, remaining rent, termination rights and the cost and probability of any negotiated surrender. The property being valued cannot be silently replaced by an unencumbered, vacant property.

A future conversion after the lease period may be relevant if supported. Its timing and economics differ from immediate conversion. If a separate instructed scenario assumes vacant possession, label and analyze it separately.

Model response. “The proposed use is a candidate for future analysis, but the immediate scheme relies on possession that is not currently available. I would analyze the actual interest and dated occupation obligations before comparing conversion with continued use.”

8 Your integrated use analysis worksheet

Read this new case before checking the model answer. A 1,200-square-meter property contains a small warehouse. Its supplied continued-use value is PHP 8.0 million. Current controls and specialist evidence support retention, conversion to neighborhood shops, and a new apartment scheme. A proposed hotel is not permitted; no evidence supports a change.

All amounts below concern the same interest and valuation date. Conversion to shops has a supported post-work value of PHP 10.0 million and compatible conversion allowances of PHP 1.5 million. A new apartment scheme has a completed-development value of PHP 27.0 million and non-land allowances of PHP 17.0 million, excluding removal of the existing warehouse. Removal costs PHP 800,000. Assume no leases, no omitted obligations and compatible market support for the stated baseline values.

Identify the candidate uses and explain why the hotel cannot enter the present financial ranking.

Calculate retention, net shop conversion and the apartment amount after warehouse removal.

Select the strongest baseline option and state which appraisal principles explain the comparison.

Reduce only apartment completion value by four percent. Recalculate and explain the new ranking.

Find the apartment completion value that makes apartments equal to the baseline shop conversion.

List the evidence you would verify before using these classroom inputs in a professional conclusion.

9 Examination review and key terms

Read the question’s requested output before calculating. A residual for a vacant site, a net change-of-use amount for an improved property and a completed building value are different outputs. Labeling the amount prevents a correct calculation from becoming the wrong answer.

For use questions, identify the relevant interest and date, test legal and physical constraints, examine demand and economics, and compare the surviving alternatives. A proposed use should not be chosen because its owner is enthusiastic or because its spreadsheet has the largest gross receipts.

For numerical questions, check that dates and inclusions match. Deduct conversion costs where necessary, but do not deduct them twice. Use decimals for rates and state whether the figures are immediate values, future receipts or already net results.

Examination trap	Better reasoning
Highest gross revenue must mean HBU.	Compare supported net value after compatible costs and return allowances.
Zoning permission proves feasibility.	Test the actual scheme physically and financially.
The current use must be best.	Compare credible changes, including their costs and timing.
Vacant land means no legal constraints.	Retain actual restrictions in the as-if-vacant analysis.
A positive residual guarantees feasibility.	Compare with opportunity value and verify inputs and constraints.
Every addition contributes its cost.	Investigate the component’s effect on the whole.
A future approval is already available.	State actual status and evaluate the evidence for change.
Subtract all costs from every figure.	Check what each supplied amount already includes.

Key terms

Term	Meaning for this lesson
Highest and best use	Supported use producing the highest value under the relevant perspective and constraints.
Legal permissibility	Whether the particular use is legally available under operative rights and controls.
Physical possibility	Whether a workable scheme can reasonably be accommodated.
Financial feasibility	Whether the economics support the use under the relevant participant requirements.
Maximum productivity	Selection of the strongest value result among the feasible alternatives.
As if vacant	Analysis of the site without its existing improvements, retaining relevant restrictions.
As improved	Analysis of the property with its actual improvements and relevant obligations.
Contribution	Effect of a component on the value of the whole.
Interim use	A supported temporary use before a possible longer-term use.
Land residual	Amount left for land after compatible non-land allowances in the stated model.
Opportunity cost	Benefit of an available alternative given up by the selected choice.
Sensitivity	Effect of a defined change in an input on the result.
Excess land	Land with potential for an independent use or disposition beyond existing needs.
Surplus land	Additional land without established independent development or disposition potential.

10 Original practice test

Choose one best answer for each item. Suggested study time: 40 minutes. All numbers and permissions are supplied exercise inputs. These are newly authored learning questions, not reproduced PRC examination items.

1. A new loading bay costs PHP 1.1 million but raises the supported whole-property value by PHP 700,000 under consistent assumptions. Which principle directly explains the difference?

A. Competition
B. Contribution
C. Conformity
D. Change

2. A buyer compares a completed warehouse with the total cost, time and risk of obtaining equivalent utility elsewhere. Which principle is being applied?

A. Substitution
B. Regression
C. Surplus land
D. Accounting depreciation

3. A rental property is priced partly by reference to expected future benefits, with appropriate timing and risk treatment. Which principle is most directly involved?

A. Conformity
B. Balance
C. Progression
D. Anticipation

4. Unusually strong rents attract several competing projects into the same segment. What should the appraiser investigate?

A. Whether each building cost the same amount
B. Whether competition can be ignored before completion
C. Whether rents and absorption remain sustainable with additional supply
D. Whether new supply causes an automatic equal percentage value loss

5. Which statement best describes a highest and best use conclusion for market value?

A. It is always the owner’s preferred use
B. It identifies the supported use giving the highest value under the relevant constraints
C. It selects the greatest allowable floor area
D. It selects the highest gross selling price

6. A proposed hotel gives the highest residual, but verified current controls prohibit it and no evidence supports a change. What is the best response?

A. Select it because the residual is highest

B. Average its residual with permitted uses

C. Ignore the controls because the site is privately owned

D. Reject it as a current supported use in the stated analysis

7. A legally permitted warehouse cannot fit the verified turning space required for the stated operation. Which test is directly affected?

A. Physical possibility

B. Maximum productivity only

C. Accounting recognition

D. Contract price

8. A site passes legal and physical tests for apartments. No market demand or development cost analysis has been done. Which conclusion is justified?

A. Apartments are conclusively the HBU

B. All apartment projects are infeasible

C. Financial feasibility and comparative productivity remain to be tested

D. The physical test establishes maximum productivity

9. A retail scheme has completion value PHP 40 million and total compatible non-land allowances PHP 32 million. What is the simplified land residual?

A. PHP 8 million

B. PHP 32 million

C. PHP 40 million

D. PHP 72 million

10. Apartments imply PHP 9 million for land; retail implies PHP 8 million. Both are supported and feasible for the same site. Which has the higher residual?

A. Retail because its gross value is higher

B. The schemes must be averaged

C. Neither because all feasible uses are equal

D. Apartments by PHP 1 million

11. Apartment completion value is PHP 34 million with PHP 25 million compatible allowances. Completion value falls five percent and allowances do not change. What is the revised residual?

A. PHP 8.55 million

B. PHP 7.3 million

C. PHP 9 million

D. PHP 32.3 million

12. Using those PHP 25 million allowances, what apartment completion value gives a residual equal to a retail residual of PHP 8 million?

A. PHP 17 million

B. PHP 25 million

C. PHP 33 million

D. PHP 41 million

13. Retention is PHP 6.2 million. Post-renovation value is PHP 7.8 million less PHP 1.2 million compatible allowances. Cleared-site value is PHP 7.1 million less PHP 800,000 clearance. Which option is strongest?

A. Retention at PHP 6.2 million

B. Clearance at PHP 7.1 million

C. The options are equal

D. Renovation at PHP 6.6 million

14. A cleared site is worth PHP 7.4 million and retention is PHP 6.0 million. What total immediate conversion allowance makes the options equal?

A. PHP 1.4 million

B. PHP 400,000

C. PHP 1.0 million

D. PHP 13.4 million

15. Which statement about as-if-vacant and as-improved analysis is correct?

A. The results must always be the same

B. As if vacant removes every legal restriction

C. Conversion costs can make continued use best as improved even when another use suits the vacant site

D. As improved prohibits analysis of redevelopment

16. A permitted temporary use produces income while a supported future project awaits market readiness. What is this temporary use called?

A. Maximum density
B. Interim use
C. Forced sale
D. Reproduction

17. An unused rear area has no established independent access or ability to be separately developed. What is the best conclusion?

A. It is automatically excess land worth the full roadside rate
B. It is automatically worthless
C. It is automatically an approved subdivision
D. Independent excess-land potential has not been established

18. A property's verified lease prevents unilateral termination for five years. An immediate apartment conversion assumes vacant possession. What should the appraiser do?

A. Treat the lease as irrelevant to land use
B. Value the drawings as an already completed project
C. Investigate actual rights, occupation timing and any supported surrender or future conversion
D. Ignore the actual interest and use the highest rent

19. The third block adds PHP 700,000 to the whole but costs PHP 1 million. All other effects are controlled. What is its marginal amount above cost?

A. Negative PHP 300,000
B. Positive PHP 300,000
C. PHP 700,000
D. PHP 1.7 million

20. One assumption changes and reverses the preferred use. What does the sensitivity result establish?

A. The changed outcome is certain
B. The ranking depends materially on that assumption and needs supporting evidence
C. The original appraisal must be fraudulent
D. The downside has a known probability

Short answer practice

1. Explain why a proposed use can be legal and physically possible yet financially infeasible.

2. Explain why land as if vacant and property as improved can have different preferred uses.

3. Write a short professional response to an owner who wants the highest projected gross revenue used as proof of highest and best use.

11 Answers and explanations

Questions	Answer sequence
1–5	B A D C B
6–10	D A C A D
11–15	B C D A C
16–20	B D C A B

1. Answer B

Contribution measures the component's effect on the whole. Its stated PHP 700,000 contribution differs from its PHP 1.1 million expenditure.

2. Answer A

Substitution requires relevant alternatives with equivalent utility, rights and availability. Fees, timing and risk can affect the comparison.

3. Answer D

Anticipation connects present value to expected future benefits. The expectation needs evidence and appropriate treatment of timing and risk.

4. Answer C

Competition can affect rents, incentives, occupancy and letting periods. Its actual effect must be investigated, rather than inferred as a fixed adjustment.

5. Answer B

The conclusion concerns supported value after legal, physical and financial consideration. Owner preference, density and gross receipts do not settle the analysis.

6. Answer D

The proposed hotel fails the legal test on the supplied evidence. A large residual cannot cure a verified prohibition.

7. Answer A

The stated scheme fails a physical layout requirement. Permission for a category does not prove that a workable scheme fits the site.

8. Answer C

Passing two tests makes apartments a surviving candidate. Demand, costs and participant economics still require investigation.

9. Answer A

PHP 40 million minus PHP 32 million leaves PHP 8 million for land in the stated simplified model. It is not the completed scheme value.

10. Answer D

Among the supplied feasible alternatives, the apartment residual is PHP 1 million higher. Gross value does not override the compatible residual comparison.

11. Answer B

PHP 34 million times 0.95 equals PHP 32.3 million. Deduct PHP 25 million to obtain PHP 7.3 million.

12. Answer C

At equality, completion value minus PHP 25 million equals PHP 8 million. Completion value is therefore PHP 33 million.

13. Answer D

Renovation is PHP 6.6 million, clearance is PHP 6.3 million and retention is PHP 6.2 million. Compare net amounts with consistent dates.

14. Answer A

PHP 7.4 million minus PHP 6.0 million gives a PHP 1.4 million threshold. At that allowance the net cleared-site option equals retention.

15. Answer C

The premises ask different questions. Existing improvements, occupation obligations and the costs and timing of change can alter the strongest current choice.

16. Answer B

An interim use serves the property before a possible longer-term use. Its income, costs, duration and transition should be analyzed.

17. Answer D

Unused area alone does not prove independent use or disposition. Investigate access, subdivision, controls and contribution to the whole.

18. Answer C

Vacant possession is not currently established. The lease and any supported change affect the use alternatives, timing and value of the actual interest.

19. Answer A

The incremental contribution less incremental cost is PHP 700,000 minus PHP 1 million, or negative PHP 300,000. A value increase does not necessarily justify the expenditure.

20. Answer B

Sensitivity shows how the result responds to an input. It directs further investigation but does not by itself establish probability or certainty.

Model short answers

1. Legal permission and a workable layout establish that a scheme can be considered, but they do not prove sufficient demand or economic support. Achievable receipts must be compared with compatible development, operating, timing and risk allowances and the relevant opportunity cost. A positive rent or revenue alone does not establish feasibility.

2. The vacant-site premise asks which use suits the site without its existing improvements, while retaining relevant restrictions. The as-improved premise considers the actual building and occupation obligations. Renovation, demolition, relocation, surrender and delay can change the comparison. Continued use can therefore be strongest now even when a different use would suit a vacant site.

3. “Gross revenue is only one part of the comparison. I would first verify that the proposed scheme is legally available and physically workable, then investigate demand, costs, timing and the relevant participant return. I would compare its supported net result with credible alternatives, including continued use where appropriate.”

Model approach to the integrated worksheet

The current supported candidates are retention, shop conversion and apartment redevelopment. The hotel is excluded on the supplied legal facts. If new evidence later supports a change in controls, that would require a separately reasoned investigation rather than an assumption inserted into this baseline.

Retention is PHP 8.0 million. Shop conversion is PHP 10.0 million − PHP 1.5 million = PHP 8.5 million. Apartments imply PHP 27.0 million − PHP 17.0 million = PHP 10.0 million before removal, then PHP 10.0 million − PHP 800,000 = PHP 9.2 million. Apartments are strongest at baseline by PHP 700,000 above shops and PHP 1.2 million above retention.

Contribution helps explain the building's effect, anticipation explains the expected development benefits, and substitution helps compare competing outcomes. The maximum-productivity test chooses among uses that survive the constraints and supported feasibility analysis.

A four percent apartment revenue reduction gives PHP 27.0 million × 0.96 = PHP 25.92 million. Deduct PHP 17.0 million plus PHP 800,000 to obtain PHP 8.12 million. Shop conversion remains PHP 8.5 million and becomes stronger by PHP 380,000. Apartments still exceed retention by PHP 120,000 under these inputs.

Apartments equal shops when completion value minus PHP 17.8 million equals PHP 8.5 million. The threshold is PHP 26.3 million. The fall from the baseline PHP 27.0 million is PHP 700,000, or approximately 2.59 percent. This is a ranking threshold, not the minimum apartment value needed to outperform every possible alternative.

Before professional use, verify the property interest and title restrictions, occupation status, operative controls and approvals, workable scheme, specialist findings, achieved market revenues, cost scope, removal estimate, timing and compatible return allowances. Examine the sensitivity to the assumptions most likely to change the ranking.

A sample reasoned use conclusion

"On the supplied baseline evidence, apartment redevelopment provides the strongest net result for the improved property among the tested candidates. Its PHP 9.2 million comparison amount includes the stated warehouse removal cost and exceeds the shop conversion amount by PHP 700,000. The hotel proposal is unavailable under the supplied controls. The apartment preference is sensitive to completion revenue: a reduction to PHP 26.3 million removes its advantage over shops. Verification of demand, scheme capacity, removal cost and compatible development allowances is therefore material to the conclusion."

This is an exercise conclusion. A professional report would explain the actual evidence, assumptions, valuation methods, date and interest, together with the applicable engagement and reporting requirements.

Review your results

For questions 1–4 and 19, revisit the principles. For 5–8, review the meaning of HBU and the screening tests. For 9–14, redo the residual, sensitivity and improved-property comparisons. For 15–18 and 20, review premises, timing, occupation constraints and uncertainty.

A useful personal target is sixteen correct answers out of twenty, followed by an explanation and correction of every missed item. This is an editorial study target, not the PRC passing rule. You should be able to defend the reasoning behind each answer without memorizing its letter.

Before you move to Lesson 4

You should now be able to test a proposed use, explain its economic foundation and compare it with alternatives. Lesson 4 develops physical geography and human geography, including how accessibility, population, terrain and hazard evidence help establish the market and site assumptions used in appraisal.

12 References and examination status

Legal and standards concepts are paraphrased for study. The examples, calculations, worksheet and assessment questions are original. The references identify the concepts and provisions for further reading; this chapter does not reproduce a standards manual or a proprietary examination reviewer.

1. BLGF Philippine Valuation Standards first edition

Historical conceptual reference, Concepts Fundamental to Generally Accepted Valuation Principles, paragraph 2.7. Its standards numbering and accounting passages are not presented as current requirements.

https://blgf.gov.ph/wp-content/uploads/2015/11/Philippine-Valuation-Standards-Manual.pdf

2. International Valuation Standards Council public glossary

Cost Approach, Income Approach and Market Approach entries. Acknowledgment to IVSC. Public glossary dated March 2020; read the applicable current edition for mandatory requirements and clause numbering.

https://ivsc.org/standards-glossary/

3. Appraisal Institute Guide Notes

Guide Note 10 discusses recognized principles including contribution, balance and externalities. Conceptual US practice reference, not a Philippine licensing requirement.

https://www.appraisalinstitute.org/insights-and-resources/resources/standards-of-professional-practice/guide-notes

4. Philippine Valuation Standards third edition

Official BLGF publication, indexed IVS 102 appendix A90.01–A90.06 and A100.01, printed pages 31–32. Supports the premise, constraints, conversion costs and standalone versus group distinctions.

https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

5. Appraisal Institute of Canada Highest and Best Use

Paul Beckwith, 2010 Volume 54 Book 3. Conceptual discussion of use testing and comparable selection. Its historical Canadian standards citations are not Philippine requirements.

https://www.aicanada.ca/article/highest-and-best-use/

6. Republic Act No 7160

Local Government Code, section 20. Land-use planning and reclassification framework; verify actual local controls and current applicable national requirements for the site.

https://lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

7. Supreme Court decision G R No 183409

Chamber of Real Estate and Builders Associations Inc v Secretary of Agrarian Reform, 18 June 2010. Distinguishes reclassification from conversion. Current parcel-specific requirements require further legal verification.

https://lawphil.net/judjuris/juri2010/jun2010/gr_183409_2010.html

8. PRC appraiser examination program for 2026

Official coverage reference for real estate appraisal principles and theories and professional valuation standards.

https://www.prc.gov.ph/sites/default/files/REA%20exam%20program%202026.pdf

Preparation for 2027

The 2026 PRC program provides the verified examination coverage reference. The lesson sequence, cases and study targets are curriculum decisions. They are not represented as a confirmed 2027 table of specifications, official question weights or PRC endorsement. [8]

Before release for the 2027 examination, review the official program and any revised specifications, operative professional standards, and relevant implementing or local issuances. For a professional engagement, consult the full applicable requirements and site-specific evidence. Fictional permissions and numerical inputs in this chapter are teaching assumptions.

REALEX

Lesson 4

Physical and Human Geography

Geography location and environmental evidence for real estate appraisal

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

Two parcels can have the same area and similar buildings yet serve their users very differently. One may have dependable road access, adequate drainage and a convenient journey to work. The other may depend on a bridge that closes during heavy rain. Geography helps you identify those differences and investigate their importance to the market.

This lesson develops your ability to read a location, examine its physical setting and interpret the people and activities around it. You will connect maps, site observations, population information and transport evidence with the appraisal assignment established in Lesson 1 and the highest and best use reasoning developed in Lesson 3.

The central skill is explaining what the evidence establishes. A mapped flood susceptibility category can identify a concern requiring investigation. It does not supply a standard percentage deduction from value. A growing population can support a demand inquiry, but the appraiser must still investigate households, affordability, competing supply and actual market activity.

All maps, numerical cases and practice questions in this lesson are newly authored. The teaching locations and amounts are fictional. Source numbers in brackets refer to the reading list at the end.

Your learning goals

- Explain how physical and human geography affect the usefulness of a property.
- Distinguish a regional setting, a neighborhood, a market catchment and a particular site.
- Read map orientation, scale, symbols, contours and data dates.
- Investigate legal access, practical accessibility, drainage and utility service.
- Calculate simple distance, slope, population density and growth measures.
- Interpret demographic and transport information without overstating demand.
- Use official hazard information within its stated limitations.
- Separate a documented constraint, a plausible economic effect and a supported valuation adjustment.

Study plan: Allow about three hours. Read sections 1–4 first, then sections 5–7. Work through the ten cases before attempting the worksheet and 20-question test. Keep a calculator and write the units beside every numerical answer.

1 Geography in the appraisal assignment

Physical geography describes the natural setting

Physical geography concerns landforms, water, climate, soils and natural processes. In an appraisal, these matters become practical questions about how land can be used and what is required to use it. A slope can affect vehicle circulation. Low ground can receive runoff from higher land. A coastal position can offer attractive views and also require investigation of exposure to coastal hazards.

Begin with a description rather than an immediate judgment. Record that the site slopes downward toward a drainage channel, for example. Then establish the source and accuracy of the elevation information, inspect the drainage route and identify what a qualified specialist may need to assess. Calling the site “good” or “bad” before that work hides the relevant facts.

The same physical feature can affect different uses differently. A hillside may suit a low density residential development if access, stability and market demand support it. The same terrain may create substantial difficulties for a distribution warehouse requiring large level working areas. Geography must therefore be considered with the intended use and property interest.

A site inspection gives evidence of conditions observed at a particular time. A dry inspection day does not establish that the site never floods. A green field does not establish good bearing capacity. Photographs are useful when their date, location and subject are recorded, but an attractive photograph cannot replace technical evidence of hidden conditions.

Human geography describes people and their activities

Human geography examines where people live, work, travel and organize their activities. Relevant appraisal information includes settlement patterns, household formation, employment concentrations, transport connections and changes in land use. These factors help explain who might use a property and what alternatives they can choose.

For example, a residential market near an employment center may include households seeking a manageable commute. A local retail unit may depend on nearby residents, passing workers and the convenience of stopping. A warehouse may depend on suppliers, delivery routes and access to a port rather than the number of residents within walking distance.

Use observable evidence relevant to the property segment. Population figures, journey times, leasing activity and verified transactions can support the inquiry. Descriptions based on stereotypes about the residents of an area cannot substitute for evidence. Avoid treating ethnicity, religion or a social label as a valuation explanation.

The physical and human settings interact. A river can limit the routes people use. A new employment center can change travel patterns. A road can improve access while also increasing traffic noise. Explain the interaction that matters to likely users instead of assuming that every development produces the same benefit.

Analyze the region neighborhood and site

A regional analysis identifies broad economic and geographic connections, such as employment centers, ports, agricultural production areas and major transport corridors. It establishes context, but it is too broad to resolve every question about the subject parcel.

A neighborhood analysis examines the surrounding area relevant to the property. It considers nearby uses, services, competing properties and local access. A neighborhood boundary may follow a highway, river or change in development pattern. It need not match a barangay boundary.

A site analysis examines the parcel and its immediate relationships. It considers shape, area, frontage, elevations, drainage, legal and physical access, services, improvements and site-specific constraints. A generally desirable municipality can contain sites with very different access and drainage conditions.

Move between these scales carefully. If provincial employment increases, investigate whether the subject's likely users can reach those jobs and whether the relevant local property segment shows a response. If a road beside the site is damaged, do not assume that the entire regional market has the same disadvantage.

Scale	Appraisal question	Possible evidence
Region	What activities and connections support the property market?	Employment distribution, major corridors and economic activity.
Neighborhood	What surrounding uses and alternatives influence likely users?	Local services, competing properties and access patterns.
Site	What can this parcel and interest actually provide?	Survey information, inspection, access documents and technical reports.

A catchment follows practical access

A catchment is the area from which a use is likely to draw its customers or users. A simple circle around a shop is an initial geometric description. Roads, barriers, journey times and competitors may produce a very different practical catchment.

Imagine a clinic only 500 metres from a housing cluster in a straight line. A river separates them and the nearest crossing adds several kilometres to the journey. The geometric distance overstates convenience. Investigate actual routes and the modes of travel likely users rely on.

Administrative boundaries remain important when reading statistics or permissions. A statistical total is tied to the area used to count it. The mistake is to assume that the statistical area and the property's market area are automatically identical. Describe each boundary and explain why you chose it.

2 Read a map before drawing a conclusion

Identify purpose source and date

A map is a representation prepared for a purpose. A road map supports navigation. A topographic map shows landforms and elevations. A land use map describes categories of use. A hazard layer describes a particular hazard under its stated method. None of these purposes automatically makes the map an authoritative boundary survey.

Read the title and legend before interpreting colors. Record the producing agency, layer name, reference date, retrieval date and any available method or accuracy information. An online view may combine a recent road basemap with an older hazard layer. The retrieval date describes when you accessed the view; it does not make every underlying layer current.

Metadata is information about a dataset, including its origin and characteristics. Geoportal Philippines offers a metadata viewing function alongside its map layers. Use it to begin investigating the layer rather than relying on the appearance of the display. [2]

For your appraisal workfile, preserve enough detail for another reader to understand what you examined. A screenshot without its legend or source can be difficult to interpret later. Record the selected location and any limitations affecting whether it represents the full property.

Orientation and position

Check the north indication and the direction in which coordinates increase. Do not assume that the top of every image is north. A rotated plan may place the road at the top for convenience. Written descriptions should state the relevant directions consistently with the map being used.

Latitude and longitude express angular position on the earth. Easting and northing commonly describe position in a specified projected coordinate system, usually with linear units. A pair of numbers is incomplete without the coordinate system and units needed to interpret it.

At this stage you do not need to master every projection. You do need to recognize that a degree is not a metre, that datasets may use different reference systems, and that overlaying them requires compatible handling. A pin that looks near a parcel on a basemap does not establish a surveyed corner.

When location matters to a hazard assessment, check the actual selected point. A street address search may identify a road entrance or an approximate address rather than the building footprint. A large parcel can extend across more than one mapped zone. A single point result should not silently become a conclusion for every part of the property.

Scale and distance

A representative fraction such as 1:10,000 means one unit on the map corresponds to 10,000 of the same units on the ground at the stated map size. One centimetre therefore represents 10,000 centimetres, or 100 metres. At 1:50,000, one centimetre represents 500 metres.

The smaller denominator gives the larger map scale. A 1:10,000 map generally displays a smaller area with more detail than a 1:50,000 map of the same printed size. The phrase “large scale” refers to the map ratio, not to the geographic area covered.

A printed representative fraction becomes unreliable if the map image is resized without updating the fraction. A graphic scale bar remains useful when it is resized proportionally with the map, because the relationship between the bar and the mapped features remains the same. Measure against the bar rather than assume the printed ratio still applies to a resized screenshot.

Measure the distance relevant to the question. Straight line distance describes separation. Road distance follows the route. Travel time additionally depends on the mode, speeds, stops, congestion and access restrictions. A short route can take longer than a longer but better connected route.

$$\text{Ground distance in metres} = \frac{\text{Map distance in centimetres} \times \text{scale denominator}}{100}$$

Example: At 1:10,000, a 3.2 cm map distance represents 3.2 × 10,000 ÷ 100 = 320 m. This is the distance along the line you measured; it is not automatically a vehicle route.

Contours and elevation

A contour connects points of equal elevation in the represented terrain. The contour interval is the vertical difference between successive contours. A map with a 5 metre interval might show contours labelled 20, 25 and 30 metres.

Within the same map and contour interval, closely spaced contours indicate a steeper slope than widely spaced contours. Compare the horizontal spacing as well as the vertical change. A contour label alone gives an elevation, not the slope across the parcel.

Elevation should be read against its stated vertical reference. A floor level described as 1 metre above the adjacent road is a relative level. A level described against a geodetic datum has a different reference. You cannot compare the two reliably without knowing their relationship.

Contours help identify likely terrain patterns, but their detail may be insufficient for a small site design. An appraisal can flag the need for a topographic survey when grading, drainage or usable area materially affects the assignment. Do not design retaining works from a generalized map.

Boundaries and areas need appropriate evidence

A polygon drawn on a public basemap may help locate the subject, but it does not necessarily establish the legally recognized parcel boundary or area. Reconcile the map with the title, approved survey plan and other relevant documents. Refer unresolved boundary issues to the appropriate professional.

Also distinguish gross parcel area from a particular usable area. A gross area can include portions affected by access, water margins, topography or other restrictions. The effect depends on the actual rights and constraints. A colored overlay alone does not authorize you to declare land ownership lost or to subtract the overlay from the legal area.

If you calculate a mapped intersection, state what it is: an estimate from specified datasets. Its precision cannot exceed the reliability of the parcel and hazard boundaries used. Rounding a mapped area to two decimal places does not make an approximate boundary survey accurate.

Original location map for the exercises

The diagram below represents a fictional locality in a local coordinate system measured in metres. It is original teaching material, not an official map or a surveyed property plan. North is upward. Roads are shown by their center lines.

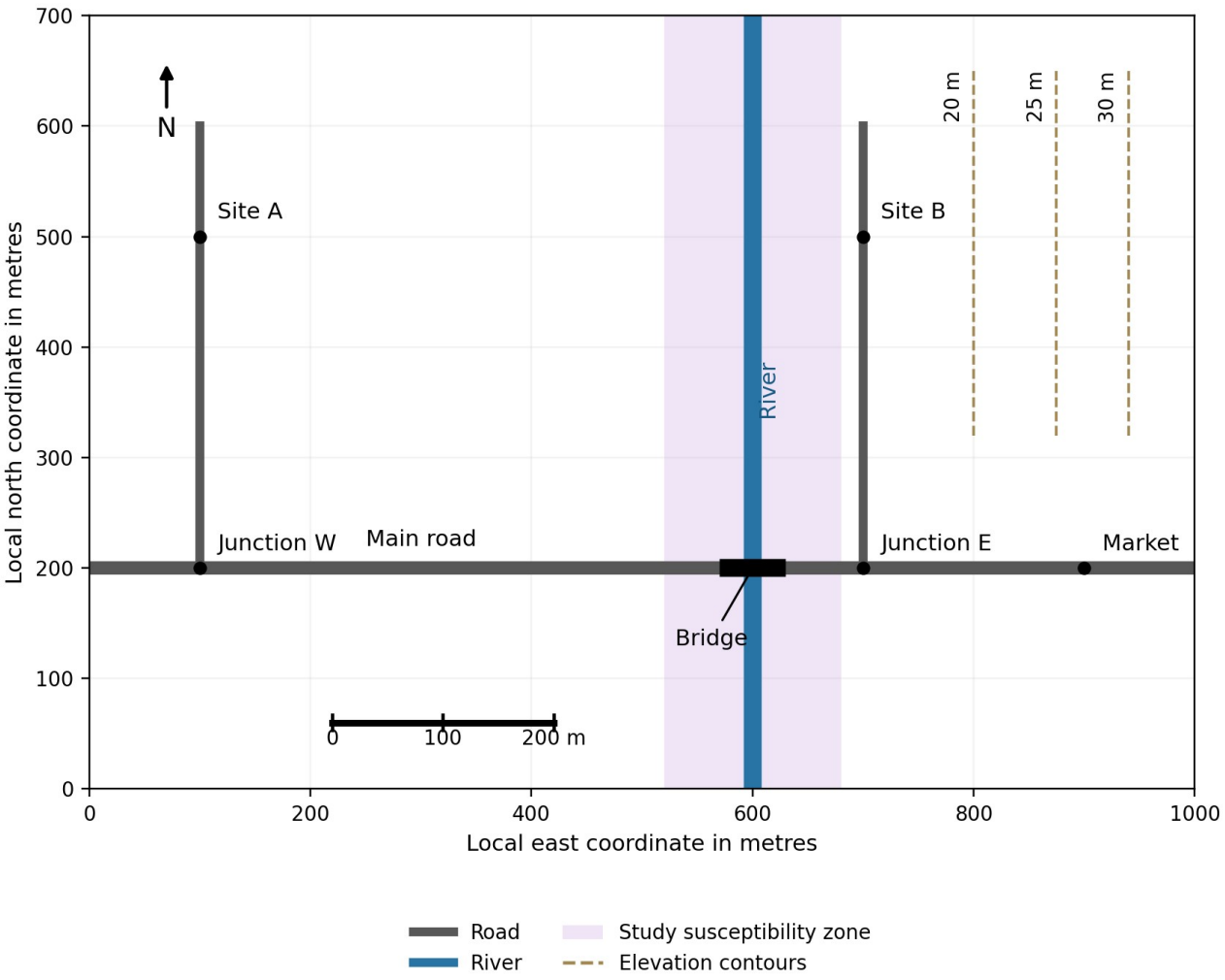


Figure 1 Fictional location and environmental evidence map

Site A is at (100, 500). Site B is at (700, 500). Both connect southward to the main road at north coordinate 200. The only river crossing shown is the bridge on the main road. The market is at (900, 200). The shaded strip is a teaching susceptibility zone extending from east coordinate 520 to 680. Contours east of Site B show elevations increasing toward the east.

For the route exercises, assume the shown roads are the only permitted vehicle routes, the bridge is open and distances follow the center lines. These exercise assumptions do not establish legal access or actual road conditions for a real property.

3 Accessibility and the usefulness of a location

Legal access and physical access answer different questions

Legal access concerns the right to reach the property through a road, easement or other applicable arrangement. Physical access concerns whether the route can actually be used. Practical accessibility considers whether it serves the needs of likely users reliably and conveniently.

A visible track across a neighboring property can provide physical passage without establishing an enforceable right to continue using it. A documented access right can exist over a route that is too narrow, steep or obstructed for the proposed use. Investigate both the documents and conditions.

Start with the property interest and relevant instruments from Lesson 1. Review road status, the scope of any easement and restrictions affecting use. Ask whether the access is pedestrian or vehicular, whether particular vehicles can use it, and whether the route reaches the public road network. A client's statement that "everyone uses it" is a lead for investigation.

On inspection, examine entrance width, turning movements, grades, surface condition and obstructions within the scope of the assignment. Where a use depends on heavy vehicles, seek appropriate technical information about vehicle clearance, road capacity and restrictions. The appraiser's ordinary observation should not become an unsupported engineering certification.

Frontage visibility and entry are distinct features

Frontage describes the relationship of a site boundary to a road or other feature. Visibility describes whether likely users can see the property. Entry concerns whether they can approach and enter it. A roadside property can have extensive frontage while a center barrier or access rule limits entry from the opposite direction.

For a convenience shop, the ability to stop safely may matter more than traffic volume alone. For a warehouse, turning space and reliable loading access may matter more than visibility. For a dwelling, frequent passing traffic can impose noise or safety concerns. Explain the relevant use before deciding whether a feature is favorable.

Avoid a universal corner premium. A corner can provide additional exposure and possible access choices, but it can also involve setbacks, turning conflicts or reduced usable space. Compare properties with similar use and rights, and investigate how the market responds to the actual configuration.

Measure journeys for the relevant users

A journey has an origin, destination, mode and time. "Ten minutes from the city center" is incomplete if it reflects an unusually quiet early morning trip, while likely users travel in peak traffic. Record the conditions of the observation.

Useful transport information can include road distance, observed journey time, service frequency, transfer requirements, walking conditions and reliability. A transit stop nearby may offer little convenience if the service does not run during the likely users' working hours. A railway line beside a parcel does not establish that a station is accessible there.

Look for barriers as well as connections. Rivers, limited crossings, steep terrain, restricted roads and large enclosed developments can make nearby destinations difficult to reach. A bridge or junction can become a point on which several routes depend. Its reliability can therefore affect the neighborhood beyond properties immediately beside it.

When comparing access evidence, use consistent conditions where possible. Compare peak with peak, walking with walking and the same destination with the same destination. If the measures differ, explain why and avoid treating the numerical difference as entirely caused by location.

Separate existing facilities from proposed facilities

Infrastructure information should identify the project's status. A proposal, approved project, construction contract, partly completed facility and operating facility have different implications. A proposed route on a brochure does not establish an operating road at the valuation date.

Investigate location, public announcements from the responsible authority, approvals, implementation progress and access arrangements. Record whether the evidence was available as of the valuation date. Future information should not silently be inserted into a historical appraisal.

Market participants can respond to expectations before a facility opens. That possibility requires market evidence and a clear description of the expectation being considered. It does not justify assuming that every proposed project will be delivered on time or assigning a fixed uplift.

Also consider adverse effects relevant to the subject. A road improvement can reduce journey time while increasing through traffic. A terminal can support commercial demand while creating congestion. Different users may value the same change differently.

4 Terrain water and site services

Slope is a measured relationship

Slope expressed as a percentage is the vertical rise divided by the horizontal run, multiplied by 100. The horizontal run is the plan distance, not the inclined distance along the ground. Keep the units consistent before dividing.

If ground rises 6 metres over a horizontal distance of 120 metres, the slope is 5%. A 5% slope is not a five degree angle. Degrees and percentage are different ways of describing slope. When the problem asks for a percentage, use the rise-to-run relationship.

An average slope across a parcel can hide a steep local section. A driveway, loading platform or building pad may be affected by local levels that a parcel-wide average does not reveal. Identify where the measurement applies.

Slope can influence earthworks, drainage, accessibility and the arrangement of improvements. Its economic effect depends on the use and the work required. You cannot conclude that every parcel with the same percentage slope has the same development cost or value adjustment.

$$\text{Slope percentage} = \frac{\text{Vertical rise}}{\text{Horizontal run}} \times 100$$

Multiply the fraction by 100. Example: 6 m ÷ 120 m × 100 = 5%.

Drainage connects the site to a wider area

Drainage concerns how water moves across, through and away from an area. A site can receive water from higher adjoining land or discharge toward a channel beyond its boundary. The appraisal inquiry therefore extends beyond the parcel fence.

A watershed or drainage catchment is an area contributing runoff toward a common outlet. It differs from the customer catchment discussed earlier. The context tells you which meaning is intended. A property can lie inside both, but their boundaries and purposes are different.

Observe surface grades, drainage paths, ditches, culverts and signs of erosion or ponding. Record whether outlets appear obstructed and whether relevant changes have occurred nearby. These observations identify matters for further assessment; they do not establish the hydraulic capacity of the system.

Flooding can occur through more than one mechanism. River overflow, intense rainfall exceeding drainage capacity, backwater and coastal events require different investigations. A property far from a river can still experience surface water problems. Distance to a watercourse is useful context, not a complete hazard test.

Raising a platform may protect one building while leaving the access road exposed or changing runoff toward adjoining land. The engineering design, permissions and remaining exposure need appropriate review. Treat a claimed mitigation measure as evidence to verify, including what it protects and what it does not address.

Ground conditions require suitable expertise

Soil and subsurface conditions can influence foundations, earthworks and stability. An appraiser can identify that information is missing or that visible conditions require investigation. A routine visit cannot establish bearing capacity, groundwater conditions or the design of a retaining structure.

A filled site may appear level while containing material of uncertain composition or compaction. A former industrial use may prompt an environmental inquiry. A steep cut may require stability assessment. Describe the observation accurately and obtain relevant specialist evidence when it is material to the assignment.

Distinguish an environmental hazard map from a contamination investigation. A flood layer does not test the soil for pollutants. An old business sign does not establish contamination. Previous use is a reason to investigate appropriate records and assessments.

When a technical report is available, identify its author, date, subject, scope and stated limitations. Confirm whether it applies to the parcel and proposed use. Do not extend a report prepared for a small structure to a materially different development without a proper basis.

Utilities must be available at the required capacity

A power line along the road does not by itself establish that the site has an approved connection or sufficient capacity. A water pipe nearby does not establish service pressure, quality or available supply. Investigate the actual service arrangements relevant to the likely use.

For residential property, useful inquiries can include existing connections, service reliability and the arrangements for wastewater. For a facility with high power or water requirements, capacity and connection costs may become central to feasibility. The physical presence of infrastructure is the beginning of the inquiry.

Where service extensions are required, distinguish a preliminary estimate from an approved scope and quotation. Identify responsibility for the work, approvals and timing. A developer’s statement that utilities “will be available” should not become a description of existing services.

Cost information can support development analysis, but cost and value remain different. A service improvement costing PHP 500,000 does not necessarily increase market value by PHP 500,000. Investigate its contribution to the use and market response.

Water margins can involve legal constraints

Article 51 of the Water Code, PD 1067, provides public-use easement zones along the banks of rivers and streams and shores of seas and lakes: 3 metres in urban areas, 20 metres in agricultural areas and 40 metres in forest areas. The article also restricts building structures within the zone. [7, art. 51]

For an actual parcel, establish the relevant classification, margin, boundary evidence and other applicable requirements. A road map cannot resolve these matters. Other rules or site-specific conditions may require separate investigation. Do not treat the smallest width as a universal rule or assume that the area beyond it is automatically buildable.

An easement inquiry is different from a flood inquiry. Compliance with an applicable water-margin requirement does not establish absence of flooding. A shaded flood susceptibility zone does not itself define a legal easement boundary. Keep the source and meaning of each constraint clear.

5 Hazard information and appraisal evidence

Hazard exposure and vulnerability

A hazard is a potentially damaging event or process. Exposure concerns the people or assets located where it can affect them. Vulnerability concerns their susceptibility to harm. Risk analysis considers the possible consequences in the relevant circumstances, including the protection or capacity available.

Consider two buildings in an area exposed to flooding. Their floor levels, construction, contents, drainage and access may differ. The mapped hazard is an important common context, but possible damage and disruption need more information. A single hazard category cannot describe every difference between the properties.

Also distinguish the physical event from market reaction. Buyers may consider expected repair costs, disruption, uncertainty, financing and their available alternatives. Those considerations can affect marketability and price, but their size must be supported for the relevant property and valuation date.

An appraisal is not a disaster forecast or an engineering certification. Its task is to use the relevant evidence competently, explain material limitations and consider the implications for the identified interest and basis. Where specialist findings are essential, obtain them or state the appropriate limitation rather than inventing technical certainty.

Use the relevant official information

HazardHunterPH provides indicative location-based hazard assessments using information from participating government agencies. Its official information page directs users to PHIVOLCS for seismic and volcanic hazards, PAGASA for storm surge and severe wind hazards, and MGB for flood and rain-induced landslide hazards. Official assessment reports can be requested from the relevant agencies. [3]

MGB's detailed flood susceptibility layer distinguishes low, moderate, high and very high susceptibility. These are named map categories, not appraisal deduction rates. Use the legend and supporting description for the particular dataset rather than assuming that colors have the same meaning across every map. [5]

HazardHunterPH's published limitations identify possible differences between mapped information and ground observations, data that may be outdated and approximate administrative boundaries. Some scenario maps require complementary field and other information. The existence of these limitations is a reason to check location, method and evidence carefully. [4]

Record whether the information is an indicative online result, a published map layer, an agency assessment or a specialist site report. Each has a purpose and scope. A screenshot becomes part of the workfile evidence; it does not automatically become an official site clearance.

Distinguish different hazard mechanisms

Flood susceptibility and rain-induced landslide susceptibility describe different concerns. Ground shaking, ground rupture, liquefaction and earthquake-induced landslides also differ. A result about one mechanism does not settle the others.

For example, being outside a mapped active fault trace does not establish that a building cannot experience earthquake shaking. A site protected against routine surface runoff may still require investigation of coastal hazards. A land parcel can have more than one relevant exposure.

Avoid a blanket statement that a location is “hazard free.” Describe the hazard information actually examined, the selected location and the result within its scope. An area outside a particular mapped zone may still be affected by unmapped local conditions or another hazard.

Where apparently conflicting information appears, first check whether the sources describe the same mechanism, scenario, date and location. A resident’s account of a recent street flood and a regional susceptibility map may both be useful while answering different questions. Investigate the discrepancy and retain the evidence rather than select whichever source supports the preferred conclusion.

Build a traceable evidence record

Record	Why it matters
Selected parcel or point	Shows whether the assessment concerns the whole property, a building or an approximate address.
Agency layer and dates	Distinguishes the producing source, data reference date and retrieval date.
Legend and method	Explains what the category or scenario actually represents.
Observed and reported conditions	Separates inspection evidence from accounts requiring corroboration.
Specialist findings and scope	Shows what technical issue was assessed and the limits of the finding.
Economic evidence	Connects the documented condition to market behavior or supported costs.

Write observations, reported information and conclusions separately. “Water stains were observed on the ground-floor wall during the inspection” is an observation. “The occupant reported 30 centimetres of water last year” is a reported account. “The property requires further flood investigation” is an appraisal judgment about the inquiry. The workfile should preserve these distinctions.

Corroboration can include dated photographs, agency information, records of disruption, technical assessments and market evidence. A single recollection may be incomplete. The absence of a complaint in the documents you reviewed does not establish that no event ever occurred.

If the assignment is historical, distinguish evidence of conditions at the valuation date from changes made later. A drainage upgrade completed in 2026 cannot simply be treated as operating in 2024. Later information may help explain a prior condition, but the reasoning must be explicit.

A hazard category does not supply a percentage adjustment

Suppose a teaching property is in a mapped high susceptibility area. Applying a 20% deduction simply because the word “high” appears on the map is unsupported. The map describes hazard susceptibility under its method. It does not measure how buyers price the particular interest.

Investigate comparable transactions with similar exposure, verified differences between properties, relevant income effects and appropriate costs. The evidence may support an effect, a range or a need for further inquiry. It may also show that a supposed comparable already reflects the same condition.

Beware of counting the same disadvantage twice. If comparable sales already share the subject’s exposure, an additional blanket deduction may duplicate the condition reflected in those prices. If supported drainage costs are deducted in a development analysis, a second deduction for exactly the same cost requires a separate basis.

Different effects can coexist, such as physical mitigation cost and continuing disruption. You may consider them when supported, but explain what each represents and ensure they do not overlap. The answer is a reasoned appraisal analysis rather than a list of automatic deductions.

6 Population households and settlement patterns

Population describes people rather than completed property demand

Population is a count of people within a defined area and reference date. It gives useful context for a property market, but it does not count purchasers, tenants or completed transactions. A person can live in existing accommodation and have no intention or ability to acquire a new unit.

Household information is often more closely related to housing arrangements than a headcount alone. Distinguish total population from household population when calculating a household measure. A population total that includes people living in institutions should not be divided by private household counts without checking the definitions.

For an illustrative area with household population of 20,000 and 5,000 households, the average is 4 persons per household. That average does not mean every household has four members. Smaller and larger households can require different housing types, and several households can have accommodation arrangements that a simple average hides.

Population and household change can support an inquiry into potential demand. To estimate demand for a specific product, also investigate existing stock, vacancies, household income, financing, tenure preferences and competing developments. A census growth percentage is not a property price growth percentage.

Density depends on the area used

Population density expresses the number of persons per unit of land area, commonly persons per square kilometre in PSA statistics. [6] Divide the population by the corresponding land area. Match the population count and boundary before calculating.

An area with 24,000 people over 8 square kilometres has an average density of 3,000 persons per square kilometre. The figure is an area-wide average. It does not establish that every square kilometre or every residential block contains 3,000 people.

If you calculate density over developed residential land only, label that denominator. It differs from density over the entire municipality, which may include large undeveloped areas. A comparison between those two measures would be misleading if presented as though their area bases matched.

When boundaries change between counts, check comparability. An increase in the recorded population of a district could partly reflect a changed statistical boundary. Investigate the data notes before attributing the entire difference to migration or household formation.

$$\text{Population density} = \frac{\text{Population in the defined area}}{\text{Land area in square kilometres}}$$

Read change with a baseline and period

Total percentage population growth compares the change with the earlier population. If population rises from 20,000 to 22,000, the increase is 2,000 and total growth is 10%. The denominator is the earlier count, not the later count.

The period must accompany the result. Ten per cent over five years is different from ten per cent over one year. Dividing a five-year total percentage by five gives a simple annual allocation, not the compounded annual growth rate. If an examination problem asks only for total change, do not introduce an unnecessary annual growth calculation.

Population change can involve births, deaths, migration and changes in enumeration or boundaries. A total increase does not identify the cause without additional information. For appraisal, the cause may matter because a temporary workforce and established resident households can use property differently.

Use projections as projections. An estimate of future residents depends on assumptions and methods. Compare it with current evidence and the timing of the property proposal. Do not label a projected population as an observed census count.

$$\text{Total growth percentage} = \frac{\text{Later population} - \text{earlier population}}{\text{Earlier population}} \times 100$$

Multiply the fraction by 100 and state the period. Example: (22,000 − 20,000) ÷ 20,000 × 100 = 10% over the stated interval.

Employment income and daily activity

Employment centers can influence residential choices and commercial activity, but investigate the type, location and stability of work. A job announcement does not establish that all positions have been filled or that workers will live near the subject. A large workplace may operate shifts that affect transport requirements.

For retail property, daytime activity may differ from the resident population. Workers, students and visitors can support demand even where relatively few people reside. Conversely, a densely populated residential district may provide limited demand for a high priced specialist product.

Income and purchasing power help distinguish interest from effective demand. Use appropriate data for the relevant area and segment. An area-wide average income should not be assigned to every household. Investigate rents or payment obligations, competing products and observed market activity.

Different forms of occupation also matter. Resident owners, long-term renters, students and short-term workers can have different accommodation needs. Treat these as segments to investigate through evidence, not assumptions about individual behavior.

Settlement and land use change

Settlement patterns describe how residences and activities are arranged. Development can concentrate around centers, spread along corridors or expand outward from established neighborhoods. The arrangement affects access to services and the availability of alternatives.

Urban expansion may create pressure for different uses, but the appraiser must still apply the highest and best use tests. Nearby subdivisions do not automatically establish that agricultural land can lawfully be converted or economically developed. Determine the relevant permissions, physical conditions, costs and demand.

Distinguish existing land use from legally permitted use. A map showing current shops records an observed pattern under its method. It does not establish that every shop has permission or that the subject can adopt the same use. A zoning designation is also different from a guarantee of a profitable project.

Investigate the stage of development. A locality with vacant serviced lots can differ from one with occupied homes and established businesses. Roads and a sales office may indicate ongoing development, while occupancy, leasing and completed sales show different aspects of market activity.

For examination answers, use the information given without inventing a locality's actual growth rate or current transport project. State the mechanism clearly: a change in household formation may increase housing requirements, but whether it supports the proposed units depends on effective demand and competing supply.

7 Connect geography to the valuation analysis

Describe the fact and its relevance

An effective geographic analysis follows a sequence. Identify the feature or condition, verify the evidence, explain how it affects the relevant use and investigate the market response. This makes the conclusion reviewable.

For example, a narrow entrance is a physical fact if appropriately measured. Its relevance to a small dwelling may differ from its relevance to a warehouse. If delivery vehicles cannot enter, the use may require redesign or different operations. The valuation consequence then depends on supported costs, use alternatives and market evidence.

Use the same discipline for a favorable feature. A shorter commute is evidence of improved accessibility when measured consistently. Whether purchasers pay a premium depends on their preferences, alternatives and transactions. Favorable descriptions require support just as unfavorable ones do.

A missing fact should become a stated inquiry. If legal access is unresolved, do not quietly substitute the client's preferred assumption. Obtain the necessary evidence or address the uncertainty within the agreed assignment. The appraiser should explain how a material unresolved matter affects the confidence or scope of the conclusion.

Choose comparable evidence carefully

A comparable should be relevant to the subject's market and use. Geographic proximity helps, but two nearby parcels can differ materially because a road barrier, drainage channel or service boundary separates them. A more distant property may sometimes offer a better functional comparison.

Before inferring a location adjustment, check rights, dates, use, area, improvements, condition and transaction terms. A lower sale price on one side of a river does not establish a river-related discount if the sale also involves a smaller interest, an older building or unusual financing.

Paired evidence is useful when relevant differences can be isolated, but real transactions rarely differ in only one feature. Treat a simple pair as evidence to examine, and seek corroboration. Several consistent observations can improve support when their circumstances are verified.

The sign of an adjustment follows the comparison. If a comparable has superior access and the subject has inferior access, a supported adjustment to the comparable would reduce it toward the subject's condition. This lesson teaches the reasoning; later valuation lessons develop the detailed calculation methods.

Apply the highest and best use tests

Geographic evidence can affect each highest and best use test. Access rights and water-margin restrictions can affect legal permissibility. Terrain, site configuration and services can affect physical possibility. Required earthworks and the relevant market can affect financial feasibility. Supported comparison of feasible alternatives informs maximum productivity.

Keep the tests distinct while recognizing their interaction. A site may physically accommodate a building but lack the necessary legal permissions. Another may be legally eligible for development but require costs the market cannot support. A third may support several feasible uses that require further comparison.

Do not skip the financial question because the map looks favorable. A large population, a main road and available utilities do not establish that the projected selling price or rent will cover development costs. The economics lesson that follows will extend this inquiry.

In an examination case, identify the fact that changes the decision. If a permitted route is closed to heavy vehicles, explain the consequence for a warehouse assignment. If household growth is accompanied by many vacant competing units, explain why growth alone does not establish immediate absorption.

Write a supported location conclusion

A location conclusion should identify the property and relevant evidence, describe the implications for likely users and preserve material uncertainty. Avoid promotional words that the workfile cannot substantiate.

An appropriate teaching example is: "The site connects to the main road through the shown local road. The measured route to the market is approximately 1.1 km under the exercise assumptions. The route includes the only bridge shown. Its reliability requires investigation because interruption would affect this connection." The statement explains the observation and next inquiry without claiming a supported monetary effect.

A weak conclusion would say that the site is "prime" because it is near a market, or "worth 15% less" because it crosses a river. Neither statement explains the actual route, evidence or valuation support.

For your practice answers, aim for a short chain of reasoning that another examinee can follow. Name the evidence, explain its relevance and identify the additional information needed when the monetary conclusion is not yet supported.

8 Ten worked cases

Cover the answer paragraphs and attempt each case first. Write a numerical answer with its units, then explain what it does and does not establish.

Case 1 Map distance and resizing

Question: A map printed at 1:10,000 shows a measured straight line of 4.6 cm between a site and a school. What ground distance does it represent? If the image is later enlarged without revising the printed ratio, can you use the original ratio directly with a new ruler measurement?

Answer: 4.6 × 10,000 = 46,000 cm, or 460 m. The result describes the measured straight line. It does not establish walking or driving distance. After enlargement, the original representative fraction no longer applies directly to the new ruler measurement. Use a graphic scale resized with the map or a known reliable measurement method.

Appraisal application: Record the map size or measurement basis. A precise looking distance derived from an uncontrolled screenshot should not be reported as though it came from a survey.

Case 2 Read the fictional transport network

Question: Using Figure 1, calculate the road route from Site A to the market and from Site B to the market. Site A first travels south to Junction W and then east along the main road. Site B first travels south to Junction E and then east. Compare this with the 600 m straight line separation between A and B.

Answer: Site A travels 300 m south plus 800 m east, totaling 1,100 m. Site B travels 300 m south plus 200 m east, totaling 500 m. A road journey between the two sites travels 300 m south, 600 m along the main road and 300 m north, totaling 1,200 m. It differs from the 600 m straight line separation because the route must use the shown bridge.

Appraisal application: Site B is closer to the market by the assumed road routes. A monetary premium is not established by this calculation alone. Verify actual rights, road conditions and the destinations relevant to likely users.

Case 3 Calculate a site slope

Question: A surveyed line rises from elevation 14 m to elevation 23 m over a horizontal distance of 150 m. What is the average slope percentage along the line? What remains unknown about the parcel?

Answer: The rise is 9 m. Average slope = 9 ÷ 150 × 100 = 6%. It is not a six degree angle. The line does not establish every local slope, the shape of a building platform, ground stability or earthwork quantities.

Appraisal application: The measurement supports a terrain description along that line. Use additional site and technical information to assess a proposed layout. Do not apply an automatic 6% value deduction because the slope is 6%.

Case 4 Population density and boundaries

Question: A fictional district contains 36,000 people and has a land area of 12 km². Another published table reports 5,000 persons per km² for its developed residential area. Calculate the district-wide density and explain whether the figures conflict.

Answer: District-wide density = 36,000 ÷ 12 = 3,000 persons per km². The residential-area figure uses a different denominator. Both can be valid if their population and area definitions are appropriate. You need the table definitions before treating the difference as an error.

Appraisal application: A district-wide average can hide concentrations near services. Match the geographic scale to the property analysis and avoid transferring the average directly to every block.

Case 5 Growth and household size

Question: A fictional area's population rises from 40,000 to 44,000 over four years. At the later date, its separately reported household population is 42,000 and the household count is 10,500. Calculate total population growth and average household size. Does this establish demand for 1,000 additional houses?

Answer: Total growth = (44,000 − 40,000) ÷ 40,000 × 100 = 10% over four years. Average household size = 42,000 ÷ 10,500 = 4 persons per household. Neither result establishes demand for 1,000 additional houses. Existing accommodation, household formation, vacancies, affordability and tenure choices require investigation.

Appraisal application: Use the household population for the household-size calculation. Do not assume that the total population and household population are identical, or that a population increase translates into one fixed number of property transactions.

Case 6 Compare journey conditions

Question: Site C is 4 km from an employment center and takes 28 minutes by bus, including the usual waiting time. Site D is 6 km away and takes 18 minutes by a direct service at the same observation period. Which is more accessible for the described bus journey? Can the result establish general superiority for every user?

Answer: Site D has the shorter observed journey time despite the longer distance. It is more convenient on that measure for the stated bus trip. General superiority is not established. Service frequency at other times, fares, walking access, reliability and other destinations may change the comparison.

Appraisal application: Label the mode and conditions. A driving estimate for C cannot be compared with a bus estimate for D as though both measure the same journey.

Case 7 A nearby road without verified rights

Question: A vacant site reaches a public road through a visible track across a neighbor's land. The owner has no access instrument available and says the neighbor has always allowed passage. A warehouse appraisal is requested. What should you establish before treating the route as dependable warehouse access?

Answer: Investigate the legal right and its scope through relevant documents and appropriate clarification. Also examine whether the route can physically serve the required vehicles, including width, grade, turning and restrictions. Historical permission is useful reported information but does not by itself establish the required enduring right.

Appraisal application: A map showing the track establishes a represented physical feature, not the access interest. Address a material unresolved access matter in the assignment rather than silently treating it as confirmed.

Case 8 Flood evidence and a proposed deduction

Question: An online result indicates high flood susceptibility at a selected point. The owner reports no flooding during three years of occupancy. A reviewer proposes a 25% deduction from every comparable. What is the appropriate response?

Answer: Confirm the selected point, parcel extent, layer, method and dates. Preserve the owner's statement as a reported account and seek relevant corroboration, including site and agency information. Examine whether the comparables share the same exposure and what verified market evidence shows. The 25% deduction is unsupported merely by the category. Three years without a reported event also does not establish permanent absence of hazard.

Appraisal application: Physical evidence and market evidence perform different roles. A serious hazard inquiry can be necessary even when its monetary effect cannot yet be quantified.

Case 9 Distinguish mitigation cost from market value

Question: A teaching development analysis indicates a residual amount of PHP 8,000,000 before site drainage works. A verified scope requires PHP 600,000 of additional drainage work. Assuming all other inputs remain unchanged solely for this exercise, what is the revised residual? Does it establish that the existing site's market value must fall by exactly PHP 600,000?

Answer: The revised residual is PHP 7,400,000. The arithmetic reflects a change in one cost input under the exercise assumptions. It does not establish the market value of the existing interest. The model assumptions, market-supported revenues, timing, risk and remaining conditions still matter.

Appraisal application: If the same PHP 600,000 is already included in the model's costs, deducting it again would count it twice. A separate supported effect must be identified before making an additional deduction.

Case 10 A simple pair requires verification

Question: Two teaching land transactions are initially reported at PHP 12,000 and PHP 10,800 per m^2. The higher priced parcel has better access. The initial report says the parcels are otherwise alike. What preliminary numerical difference do you observe, and what should you verify before using it as an access adjustment?

Answer: The difference is PHP 1,200 per m^2, or 10% of PHP 12,000. The same difference is about 11.11% of PHP 10,800; state the chosen baseline. Before attributing it to access, verify the interests, dates, areas, permitted uses, condition, services and transaction terms. Seek additional relevant evidence.

Appraisal application: The arithmetic is an observation about a proposed pair. It becomes useful adjustment evidence only when the comparison is sufficiently supported. A simple exercise assumption should not become a universal access discount.

9 Applied study worksheet

A location review using Figure 1

Use the fictional map and the following additional exercise facts. Write short professional answers. Model responses follow the practice-test explanations.

Information	Exercise fact
Population	The wider district has 24,000 people over 8 km² at the stated reference date.
Households	Its household population is 23,100 in 5,500 households.
Site A levels	A surveyed line rises 4 m over 100 m horizontal distance.
Bridge reliability	A dated local record reports two closure days during one heavy-rain event.
Access documents	Site A's access instrument has not yet been provided; Site B's document requires review for the proposed use.
Market evidence	There are three asking listings but no verified comparable transactions in the supplied material.

1. Calculate road distance from each site to the market and explain one limitation of the comparison.

Your response: _____

2. Calculate district population density and average household size. State the units and correct population basis.

Your response: _____

3. Calculate the slope on the surveyed Site A line and state one matter the result does not establish.

Your response: _____

4. Explain why the closure record matters to Site A. Identify two additional inquiries.

Your response: _____

5. Explain what the study susceptibility strip establishes about Site B and what it does not establish about either site.

Your response: _____

6. Write a location conclusion of 100–150 words that distinguishes known exercise facts, unresolved access and unsupported value adjustments.

Your response: _____

10 Review and terminology

Recall the main reasoning steps

- Describe the feature in relation to the identified property and use.
- Check the source, location, date, scale and scope of the evidence.
- Separate an observed condition from reported information and a projection.
- Explain the implications for access, use, costs or demand.
- Investigate market evidence before assigning a monetary effect.
- Record material limitations and avoid counting an effect twice.

Common examination mistakes

Mistake	Correction
Equating nearness with convenience	Compare practical routes, modes and journey conditions.
Treating a visible track as verified legal access	Investigate the relevant right as well as physical conditions.
Confusing slope percentage with degrees	Use vertical rise divided by horizontal run, then multiply by 100.
Using total population for every household calculation	Check whether household population is required.
Converting population growth into property price growth	Investigate affordability, competing supply and actual transactions.
Reading a colored zone as a value deduction	Identify the map meaning and obtain economic evidence.
Calling an unshaded site hazard free	State only the result and scope of the information examined.
Using a proposed facility as an existing facility	Verify status and conditions as of the valuation date.

Terms to know

Term	Meaning in this lesson
Accessibility	The practical ability to reach a property or relevant destination under identified conditions.
Catchment	An area contributing customers or users to a use; in drainage, the area contributing runoff to an outlet.
Contour	A line representing points of equal elevation.
Contour interval	Vertical difference between successive contours.
Exposure	People or assets situated where a hazard can affect them.
Hazard	A potentially damaging event or process.
Metadata	Information describing a dataset and its characteristics.
Population density	Persons per specified unit of land area.
Representative fraction	Map-to-ground distance ratio using the same units.
Slope percentage	Vertical rise divided by horizontal run, multiplied by 100.
Susceptibility	A description of propensity to be affected under the particular hazard method.
Vulnerability	Susceptibility to harm in the relevant circumstances.

11 Original practice test

Choose the single best answer. Suggested time: 30 minutes. These 20 questions are original educational exercises and are not actual or recalled PRC examination items. Each question carries one point for this lesson test.

1. A parcel is 400 m from a clinic in a straight line, but a river and limited crossing produce a 3 km road journey. Which measure best addresses the stated vehicle-access question?

A. The straight line alone

B. The actual permitted road route

C. The parcel area

D. The number of residents in the province

2. At an unchanged printed scale of 1:20,000, a map line measures 2.5 cm. What ground distance does it represent?

A. 50 m

B. 250 m

C. 5,000 m

D. 500 m

3. A contour map has a uniform interval. What generally indicates the steeper represented slope?

A. More closely spaced contours

B. A larger font in the title

C. A road symbol

D. A larger number of houses

4. A line rises 8 m over 200 m of horizontal distance. What is its slope percentage?

A. 25%

B. 8%

C. 4%

D. 0.04%

5. A district has 18,000 people over 6 km². What is the district-wide population density?

A. 3,000 persons per km²

B. 108,000 persons per km²

C. 3,000 households per km²

D. 6,000 persons per km²

6. Population rises from 30,000 to 33,000 over three years. What is the total growth over that interval?

A. 9.09%

B. 3.33% compounded annually

C. 10%

D. 30%

7. For a household-size exercise, household population is 16,800 and there are 4,000 households. What is the average?

A. 4.0 houses per person

B. 4.2 persons per household

C. 0.238 households per person as household size

D. 16,800 persons per household

8. An online assessment indicates high flood susceptibility at a selected point. What is the most appropriate immediate appraisal step?

A. Deduct 20% from every sale

B. Declare the whole municipality unbuildable

C. Ignore it unless flooding occurred yesterday

D. Check the location layer dates and relevant site evidence

9. Which statement best distinguishes an existing road from a proposed one?

A. Any published route is already operating

B. A proposed road guarantees a price premium

C. Project status and evidence at the valuation date must be established

D. A project cannot influence expectations until it opens

10. The client describes a visible track across neighboring land as the site's permanent access. What remains necessary?

A. Verify the relevant right and practical suitability

B. Apply a standard frontage premium

C. Assume legal access from the basemap

D. Treat past permission as a survey plan

11. A property is outside one mapped flood susceptibility zone. Which conclusion is supported by that fact alone?

A. It has no earthquake exposure

B. Its insurance cost must be zero

C. It is legally buildable for every use

D. It is outside that represented zone within the map's scope

12. Comparable sales already have the same documented exposure as the subject. What is the concern with an additional blanket deduction for that exposure?

A. It always improves precision

B. It may count the same condition twice

C. It converts asking listings into sales

D. It resolves access rights

13. Under Article 51 of PD 1067, which sequence correctly states the public-use zone widths for urban agricultural and forest areas respectively?

A. 20 m 3 m 40 m

B. 3 m 40 m 20 m

C. 40 m 20 m 3 m

D. 3 m 20 m 40 m

14. A nearby power line is shown on a map for a proposed industrial facility. What does that fact alone establish?

A. The facility has all required capacity

B. The map represents nearby power infrastructure

C. Connection approval has been issued

D. The improvement increases value by its construction cost

15. Which comparison best isolates an accessibility inquiry?

A. The same destination mode and observation period

B. A peak bus journey and an off-peak car journey without explanation

C. Provincial population and parcel frontage

D. Two asking prices with unknown rights

16. An inspection is performed on a dry day and no standing water is observed. Which statement is appropriate?

A. The parcel never floods

B. Drainage capacity has been certified

C. No standing water was observed at the inspection time

D. Every hazard layer should be rejected

17. Which statement about an administrative boundary and a retail catchment is best?

A. They must always match

B. They can differ because actual routes and customer patterns differ

C. A catchment is defined by the title area alone

D. A municipality cannot contain more than one catchment

18. A residual development calculation is PHP 6,500,000 before an additional PHP 400,000 site-work cost. With all other exercise inputs unchanged, what is the revised residual?

A. PHP 6,900,000

B. PHP 400,000

C. PHP 6,500,000

D. PHP 6,100,000

19. Which geographic issue most directly belongs in the legal-permissibility inquiry?

A. Unresolved rights to the required access route

B. The arithmetic of average household size

C. An attractive view alone

D. The average distance between contours alone

20. An area's population grew by 12%. What can an appraiser conclude about residential prices from that fact alone?

A. Prices also grew by 12%

B. Every new resident bought a unit

C. A property price change is not established without market evidence

D. New housing supply is necessarily insufficient

12 Answers and explanations

Practice test answer key

Question	Answer	Question	Answer
1	B	11	D
2	D	12	B
3	A	13	D
4	C	14	B
5	A	15	A
6	C	16	C
7	B	17	B
8	D	18	D
9	C	19	A
10	A	20	C

1. B The permitted road route addresses the vehicle journey. Straight line proximity alone ignores the crossing. Area and provincial population do not measure the route.

2. D 2.5 × 20,000 = 50,000 cm = 500 m. Keep units consistent and divide centimetres by 100 to obtain metres.

3. A Closer horizontal spacing for the same vertical interval indicates greater slope. The other features do not determine the contour-based slope.

4. C 8 ÷ 200 × 100 = 4%. The ratio before multiplication is 0.04; that decimal corresponds to 4%, not 0.04%.

5. A 18,000 ÷ 6 = 3,000 persons per km². The numerator is persons, so the result is not household density.

6. C The increase is 3,000. Divide by the earlier 30,000 to obtain 10% total growth over three years. An annual compounded rate is a separate calculation.

7. B 16,800 ÷ 4,000 = 4.2 persons per household. It is an average, not a requirement that each household have the same size.

8. D The result warrants verification and inquiry. It does not establish a preset deduction, a municipality-wide prohibition or irrelevance merely because no recent event was observed.

9. C Verify status as of the valuation date. Expectations may affect participants before opening, but delivery and a price premium cannot simply be assumed.

10. A A represented track does not establish the legal right or suitability for the proposed use. Documents and physical conditions require investigation.

11. D The result is limited to that map and zone. It does not settle other hazards, insurance terms or legal permissions.

12. B The comparable prices may already reflect the shared condition. A further deduction requires a separate supported basis and must avoid duplication.

13. D The stated Article 51 sequence is 3, 20 and 40 metres. Actual application also requires the relevant classification and boundary information.

14. B The represented nearby infrastructure is the fact supplied. Capacity, connection and value contribution require additional evidence.

15. A Matching destination, mode and period improves comparability. Unexplained differences in journey conditions make interpretation difficult.

16. C The observation is limited to that time and condition. It does not establish lifetime flood history or technical system capacity.

17. B Administrative statistics and a functional market area answer different questions. Access, barriers and competing centers can shape the catchment.

18. D 6,500,000 − 400,000 = PHP 6,100,000. This is the revised model result under the stated assumptions, not an independently established market value.

19. A The right to use the required route is a legal issue. Physical and market factors still matter in the other highest and best use inquiries.

20. C Population change is context for demand inquiry. Prices, transactions and supply must be investigated separately; they do not follow a fixed population multiplier.

Use your results to direct review

An item you answer correctly by guessing still deserves review. Mark errors by their cause: map interpretation, numerical units, source limitations, demand reasoning or appraisal judgment. Return to the relevant section and redo the related worked case without looking at the solution.

This lesson score is a study diagnostic. It is not a PRC passing prediction. Before moving on, be able to explain why a hazard category and a population growth rate cannot automatically supply a property value adjustment.

Worksheet model responses

1. Site A to the market is 1,100 m; Site B to the market is 500 m on the specified routes. These are road-center-line distances under the supplied assumptions. They do not measure travel time, actual legal access or a supported value difference.

2. District density = 24,000 ÷ 8 = 3,000 persons per km². Average household size = 23,100 ÷ 5,500 = 4.2 persons per household. The household-size numerator is household population, not the total population of 24,000.

3. Average slope on the stated Site A line = 4 ÷ 100 × 100 = 4%. It does not establish ground stability, every local slope or the grading cost for a proposed layout.

4. Site A’s route to the market crosses the shown bridge, so closure can interrupt that connection under the map assumptions. Investigate closure circumstances and recurrence, and whether alternative permitted routes exist. Also examine the needs of likely users rather than infer a fixed monetary penalty from one event.

5. Site B at east coordinate 700 lies outside the study strip ending at east coordinate 680. Site A is also outside it, but its market route crosses the strip and bridge. This fictional overlay does not establish actual flood exposure, an official site clearance, absence of other hazards or a valuation percentage.

6. Example conclusion: “Under the exercise route assumptions, Site A is approximately 1.1 km from the market and Site B is approximately 0.5 km away. Site A’s route uses the shown bridge, for which the supplied record reports two closure days during one heavy-rain event. Further inquiry should establish closure conditions and available alternative routes. The surveyed Site A line has an average slope of 4%, which does not determine site-work costs. Both selected site points lie outside the fictional susceptibility strip. Actual hazard information and the extent of each parcel require separate review. Access rights remain subject to documentary verification for the proposed use. District statistics provide demand context, while asking listings alone do not establish a supported sale-price adjustment.”

13 Sources and examination preparation status

The PRC's published August 2024 examination program expressly includes human and physical geography within Fundamentals of Real Estate Appraisal and GIS map reading and plotting within Professional Appraisal Practice. These verified headings support the subject coverage of this lesson. The lesson's particular objectives, cases, sequence and question allocation are editorial choices. [1, p. 1]

This is preparation material for an intended 2027 examination. It does not certify the final 2027 coverage, weighting, dates or examination instructions. Check the official PRC program and relevant issuances when published. This lesson is independently authored educational material and does not represent PRC endorsement.

The official sources below support the identified syllabus heading, geographic data functions, hazard information and legal concept. Original teaching cases apply those concepts; fictional values, population figures and map features are not official Philippine statistics or actual property appraisals.

1 PRC examination coverage

Professional Regulatory Board of Real Estate Service. Program of the Real Estate Appraisers Licensure Examination on August 8 2024 in NCR, page 1.

https://www.prc.gov.ph/sites/default/files/exam%20program%20appraiser%20august%202024%20%28rev%29.pdf

2 Map layers and metadata

Geoportal Philippines. Map interface including layer and metadata functions. Consult the producing agency information for the chosen dataset.

https://www.geoportal.gov.ph/

3 Indicative and official hazard assessments

GeoRisk Philippines. About HazardHunterPH. Describes indicative assessment reports, participating agencies and requests for official reports.

https://hazardhunter.georisk.gov.ph/about-hazardhunterph

4 Published hazard information limitations

GeoRisk Philippines. HazardHunterPH map interface, Methods and Limitations and Data Disclaimer sections.

https://hazardhunter.georisk.gov.ph/map

5 Flood susceptibility categories

Mines and Geosciences Bureau. Detailed Flood Susceptibility layer, field FloodSusc and unique category labels.

https://controlmap.mgb.gov.ph/arcgis/rest/services/GeospatialDataInventory/GDI_Detailed_Flood_Susceptibility/FeatureServer/0

6 Population density

Philippine Statistics Authority. Population Density definition.

https://psa.gov.ph/content/population-density

7 Public use along water margins

Presidential Decree No. 1067, Water Code of the Philippines, Article 51, statutory text hosted by the Lawphil Project.

https://lawphil.net/statutes/presdecs/pd1976/pd_1067_1976.html

Preparation for Lesson 5

The next lesson develops real estate economics finance and investment. Retain the distinction learned here: demographic and location information identify possible demand mechanisms, while supported prices, rents, costs and financing assumptions are needed to analyze the economics of a property.

REALEX

Lesson 5

Real Estate Economics Finance and Investment

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

A building can produce useful rental income and still leave its owner with little cash after loan repayments. A project can show a profit on paper and still require additional funding before its buyers pay. Understanding these differences helps you interpret property transactions, test development proposals and avoid mixing property value with one owner's financing position.

This lesson explains how property markets respond to demand, supply, inflation and credit. It then develops the basic financial measures an examinee needs to distinguish property operations, debt obligations and returns to equity. The emphasis is on understanding the amounts before applying a formula.

You will work through an original market-cycle example, compare loan structures, analyze a small income property and examine the investment context of Philippine REITs. All teaching properties, rates, prices and questions are fictional. The rates illustrate reasoning; they are not quotations of current BSP policy, bank lending or market capitalization rates. Source numbers refer to the reading list at the end.

Your learning goals

- Explain how effective demand, competing supply and delivery delays affect property markets.
- Distinguish interest-rate, inflation and credit mechanisms from automatic price predictions.
- Build a simple income statement from potential rent to net operating income.
- Separate property income from cash available to an equity investor.
- Interpret capitalization rate, cash return, loan to value and debt service coverage.
- Compare interest-only, equal-principal and level-payment loans under stated assumptions.
- Recognize fee, maturity, refinancing and interest-rate risks.
- Distinguish development profit, profit margin, return on cost and discounted investment results.
- Explain REIT share investment and the meaning of the distributable-income requirement.

Study plan: Allow three to four hours across two sessions. Read sections 1–4 first and sections 5–8 next. Complete the ten worked cases, the debt and equity worksheet, and the 20-question practice test. Lesson 6 develops the time value of money and loan-payment mathematics in greater detail.

1 The economics of a property market

Define the product and the market

A property market is defined by the interest offered, property type, location, users and period being analyzed. “Real estate demand is strong” is too broad to explain the prospects of a particular property. Demand for affordable rental rooms can increase while expensive large units nearby remain vacant.

Begin with the use and likely participants. A family buying a dwelling, a retailer renting a shop and an investor acquiring a leased warehouse make different decisions. They may face different credit conditions and consider different alternatives. Identify the segment relevant to the subject.

Keep the geographic inquiry from Lesson 4. A provincial population total gives context, but a local market can be shaped by employment access, services and barriers. Investigate whether the people or businesses identified can use the subject and meet the relevant payment obligations.

Also match the interest. An ownership transaction and a short lease do not provide the same benefits. An occupied property with contractual rents may differ from a vacant property capable of immediate occupation. The market analysis must fit the interest established in Lesson 1.

Effective demand includes willingness and capacity to pay

Demand concerns the quantity buyers or users are willing and able to obtain on particular terms during a period. In a property inquiry, distinguish interest from effective demand. Inquiries and website visits show attention; verified leasing or completed sales show different forms of market activity.

Affordability can change when payment terms change. A household may be willing to buy a home but unable to meet the down payment or monthly instalment. A retailer may like a location but be unable to support the rent from its business cash flow. Prices and financing terms therefore belong in the demand inquiry.

Demand can shift with employment, income, household formation, business activity or preferences. A change in the price of the same product can also change the quantity sought. For examination purposes, distinguish a change in the conditions of demand from the response to a different price.

Do not count every expression of interest as a purchase. If 80 prospective buyers inquire, 25 reserve and 18 complete, those are different measures. Investigate cancellations, payment status and the meaning of the records before describing achieved absorption.

Supply consists of relevant alternatives

Supply concerns the quantity available on relevant terms. Existing vacant properties, competing listings, buildings under construction and proposed developments can all inform an inquiry, but they do not represent the same stage of availability.

Separate the existing stock from new deliveries. Stock describes the total supply at a date under a stated definition. Completions add units to that stock. Demolition or conversion can remove units. A proposed project should not be counted as completed accommodation.

Property supply can respond slowly because land assembly, permissions, financing and construction take time. Developers may commit when demand is rising and deliver after conditions have changed. This lag helps explain why strong past sales do not guarantee strong sales at completion.

Compare useful substitutes. A large luxury unit does not necessarily substitute for an affordable studio. A remote warehouse without heavy-vehicle access may not substitute for a serviced logistics site. Headline counts require interpretation of the property segment.

Prices rents and quantities adjust together

When available supply exceeds effective demand at the offered terms, landlords or sellers may change prices, provide concessions or wait longer. When suitable alternatives are limited and effective demand is strong, participants may accept higher prices or rents. These are mechanisms to investigate through evidence.

Property markets do not always adjust quickly or uniformly. Owners can maintain asking prices while granting discounts privately. Vacancies can increase before advertised rents decline. Transaction volume may fall because buyers and sellers disagree about price. Track quantities and terms as well as headline prices.

Market equilibrium is a conceptual position where quantity supplied and quantity demanded are consistent at the stated price and conditions. An appraisal does not require the market to be perfectly balanced. It requires evidence about the circumstances relevant to the valuation date.

A construction cost increase can discourage new supply or require a higher target price for a proposal. It does not compel purchasers to pay that target. If the market cannot support the additional cost, the developer's margin, project scope or decision to proceed may change.

Absorption and vacancy need clear definitions

Absorption describes the taking up of available space or units during a period under a stated measure. For this lesson's rental example, net absorption means the change in occupied units. It differs from gross leasing activity, because tenants may move between properties or replace departing tenants.

Vacancy is unoccupied space or units measured against a defined total. A vacancy rate based on unit count differs from one based on floor area when units have different sizes. State the basis. Occupancy and vacancy sum to 100% only when they use the same total and definitions.

A sales inventory problem uses different records. Sales per month and remaining unsold units can produce a simple months-of-inventory measure, but reservations, completed sales and cancellations must be defined. Do not divide rental vacancy by sales take-up and assume the result is meaningful.

For example, 60 genuinely unsold units and a consistent pace of 5 completed sales per month imply 12 months of inventory if that pace continues and nothing else changes. The figure is an arithmetic indicator. It is not a promise of the actual sellout period.

$$\text{Vacancy percentage} = \frac{\text{Vacant units or area}}{\text{Total corresponding stock}} \times 100$$

2 Market cycles and economic conditions

Use the cycle as a framework for observation

Property cycles are often described through recovery, expansion, excess supply and contraction. These labels help organize observations about occupancy, rents, development activity and financing. They do not supply a fixed timetable or a universal forecast.

During an illustrative recovery, occupancy can improve while rents remain subdued because vacant alternatives are still available. During expansion, stronger occupancy and rents may encourage development. If

deliveries then exceed additional effective demand, vacancy can increase and concessions may widen. A contraction can reduce take-up and discourage further projects.

The stages need not appear in the same order or at the same time across all markets. A local employment center can support one segment while another weakens. Development restrictions, infrastructure and credit can change the pattern. Describe observed conditions rather than identify a phase solely from one indicator.

Do not infer the future from a label. Calling a market “recovery” does not prove that rents will increase next year. A defensible forecast needs assumptions, evidence and consideration of competing supply.

An original rental market example

The following fictional locality has equal-sized rental units. Net absorption is the change in occupied units. There are no removals from stock in these periods.

Period	Total units	Occupied	Vacant	Vacancy
A Initial market	120	108	12	10.00%
B New completions	160	120	40	25.00%
C Later take up	160	138	22	13.75%

Between A and B, 40 units are completed and occupied stock increases by 12. Net absorption is therefore positive, but vacancy also increases because new supply arrives faster than additional occupation. The two results do not conflict.

Between B and C, occupied units increase by 18 while total stock stays unchanged. Vacancy falls from 25% to 13.75%. The later occupancy improvement does not by itself establish the achieved rent or the time required to fill the remaining units.

Suppose landlords in B retain advertised rents but offer free-rent periods. A rent study should record the concessions rather than conclude that economic rent is unchanged merely because advertisements are unchanged. In C, investigate actual agreements before assuming all incentives have disappeared.

This example illustrates a supply lag and the difference between take-up and vacancy. Its numbers do not predict a Philippine locality’s actual cycle. For a real assignment, replace them with verified records and consistent definitions.

Interest rates affect more than the monthly payment

The BSP discusses monetary transmission through interest-rate, credit, asset-price, exchange-rate and expectations channels. These mechanisms interact and can vary over time. They provide economic context rather than a fixed property-price rule. [2]

In a property example, a higher loan rate can increase payments for a newly financed acquisition or after a variable rate resets. At an unchanged income, fewer borrowers may meet the same payment conditions. A developer may face higher interest during construction. Those effects depend on the actual contract and timing.

Rates also affect how investors compare future income with alternative uses of capital. If investors require a higher return while expected property cash flows remain unchanged, the amount they are willing to invest can decrease. However, cash flows, growth expectations and risk can also change.

The BSP policy rate, a bank loan rate, a capitalization rate and an investor's discount rate are different measures. A policy change need not pass through to each of them by the same amount or immediately. Use the actual market evidence needed for the appraisal rather than assign one percentage to every rate.

Credit availability can change even without a new rate

Credit conditions include the amount available, borrower eligibility, security, required equity, maturity and covenants. A lender can change these terms while keeping an advertised rate unchanged. The acquisition may then require more cash from the borrower.

For example, reducing permitted borrowing on a PHP 10 million acquisition from PHP 7 million to PHP 6 million raises the buyer's required acquisition equity from PHP 3 million to PHP 4 million before costs. The property has not physically changed, but the financing requirement has.

A lender may also require evidence of income, presales, completion or title before releasing funds. A project with an approved headline facility can still face a timing gap if drawdown conditions are unmet. Distinguish the facility limit from cash actually available.

These conditions affect purchasing power and project funding. They do not independently establish the market value of the security. Lending decisions and appraisal opinions serve related but different purposes.

Inflation affects income costs and purchasing power

Inflation describes an increase in the general price level, commonly measured through a relevant price index over a stated period. It differs from the price increase of one property or construction input. A general inflation rate does not establish a particular land appreciation rate.

Operating expenses and construction costs can rise, while rents respond according to leases, demand and market alternatives. A lease with a fixed rent may delay the owner's revenue response. Costs that rise faster than income can reduce net operating income even when nominal rent increases.

Nominal amounts are expressed in money of the relevant period. Real amounts are expressed on a constant purchasing-power basis. An 8% nominal return with 5% inflation gives a real return of approximately 2.86%, using 1.08 ÷ 1.05 − 1. Subtracting 5% from 8% gives a rough approximation, not the exact relationship.

In a forecast, state whether growth includes expected inflation. A nominal cash-flow forecast needs a rate consistent with its nominal basis. A constant-price forecast needs corresponding real assumptions. Changing the label without changing the inputs does not produce a coherent model.

Exact relationship for this simple annual example: real return = (1 + nominal return) ÷ (1 + inflation rate) − 1. Use decimals such as 0.08 and 0.05 in the calculation.

Exchange rates and expectations require specific links

A currency movement can affect a project using imported equipment or foreign-currency debt. Identify the exposure, payment timing and contractual arrangements. A project buying only locally priced inputs may respond differently from one with major imported machinery.

For example, an unpaid USD 100,000 equipment amount costs PHP 5.5 million at PHP 55 per dollar and PHP 5.8 million at PHP 58 per dollar, before other charges. The PHP 300,000 difference concerns that exposure. It is not an automatic PHP 300,000 change in property value.

Expectations can influence buying, selling and development before a change occurs. Participants may anticipate improved access, rising rents or tighter credit. The appraiser must investigate the evidence and uncertainty behind those expectations.

Avoid assuming that all participants interpret the same news identically. Verify transactions, lease terms, lending conditions and project progress. A persuasive headline is not a complete valuation input.

3 Read the income of a property

Potential income effective income and operating expenses

Potential gross rental income estimates the rent from the defined rentable property at the stated full-occupation assumption. It is not necessarily the cash collected. Vacancy, collection loss, concessions and other relevant terms can reduce the realized amount.

Effective gross income accounts for the relevant rental deductions and other property income under a defined model. Record what the vacancy percentage applies to. If it applies to potential rent, do not apply it again to other income unless the assumptions support that treatment.

Operating expenses concern the property's continuing operation. Examples can include management, routine repairs, insurance and property taxes where the owner bears them. Lease arrangements matter because some costs may be borne or reimbursed by tenants.

Separate recurring operation from capital expenditure. Replacing a major system can require a substantial capital outlay even when it is not included as a routine operating expense. The investor's cash forecast must still account for it. Treatment of reserves can vary by model and market convention, so state the convention being used.

Net operating income is before financing

For this lesson, net operating income, or NOI, is effective gross income less the stated property operating expenses. It is measured before debt service, depreciation, owner income tax and capital expenditure. Property taxes borne by the owner are operating expenses in the teaching schedule.

Debt service is excluded because it concerns financing rather than the property's operating performance. Two owners can hold the same property under different borrowing structures. Their remaining cash can differ even when the property produces the same NOI.

Depreciation in financial accounts is also different from a current operating cash payment. An accounting expense can affect reported profit without causing a payment of the same amount during that year. The appraisal analysis must use a consistent income or cash-flow definition.

When receiving a client's spreadsheet, reconcile the labels with its actual items. A total called "net income" may include interest, omit property taxes or mix capital works with routine repairs. The heading alone does not establish that the figure is appropriate for capitalization.

Income step	Teaching calculation in PHP
Potential annual rent	1,500,000
Vacancy and collection allowance at 10% of potential rent	(150,000)
Other property income unaffected by the allowance in this exercise	30,000
Effective gross income	1,380,000
Owner operating expenses including property taxes	(480,000)
Net operating income before financing	900,000

The schedule produces PHP 900,000 NOI. It does not establish that the owner can distribute PHP 900,000. Debt repayments, capital outlays, taxes on the investor and other cash requirements may follow.

Also distinguish an actual year from a stabilized forecast. Actual results reflect the observed occupation, contracts and expenditure. A stabilized figure assumes a supported level of continuing operation. A property undergoing initial letting or major refurbishment may need an explicit transition forecast.

Do not simply replace low actual income with a preferred stabilized amount. Investigate rents, expected occupation, expenses and the period required to reach the assumed position. A stabilization assumption can materially affect both value and funding requirements.

Gross yield and net yield are different

A gross rental yield divides the stated annual gross rent by the stated price or value. A net operating yield uses NOI instead. The measures have different numerators and should be labelled accordingly.

If potential rent is PHP 1.5 million and price is PHP 10 million, the potential gross yield is 15%. With NOI of PHP 900,000, the net operating yield on that price is 9%. Neither is the owner’s financed cash return.

Specify the denominator. A yield on acquisition price differs from a yield on current appraised value or total invested cost including acquisition works. The percentage is incomplete without the income definition, period and capital basis.

Use a gross yield as a screening measure within its limits. It can be misleading where leases assign expenses differently or where vacancies and operating costs differ substantially between properties.

4 Capitalization investment value and discounted analysis

An income amount needs a matching rate

Direct capitalization converts a representative income amount into an indication using a suitable capitalization rate. In a simple NOI model, the relationship is value = NOI ÷ capitalization rate. The rate must suit the rights, income definition, property and market being analyzed.

With representative annual NOI of PHP 900,000 and an assumed 9% capitalization rate, the arithmetic indication is PHP 10 million. At 10%, the same income gives PHP 9 million. The calculation shows the effect of changing one input while holding the other constant.

The appropriate rate is an appraisal input supported by analysis. It is not selected merely because the buyer's loan charges 9%, a seller wants a 9% return or the appraiser prefers a round number. An observed relationship from comparable transactions also requires verification of income, price, rights and circumstances.

A capitalization rate is not automatically the total return across a holding period. Future income change, capital expenditure and sale proceeds can affect the investor's result. A single-year yield and a multi-period discounted rate answer different questions.

$$\text{Simple capitalization indication} = \frac{\text{Representative annual NOI}}{\text{Matching capitalization rate as a decimal}}$$

Market value and investment value use different perspectives

Investment value addresses the benefits to a particular owner or prospective owner under that party's investment or operational objectives. Market value uses the relevant market-participant perspective for the identified interest. The two amounts can coincide or differ. [4, IVS 102 Appendix A40]

An investor may accept a lower immediate return because a property complements its operations. Another may reject the same price because it requires a higher return or has different financing constraints. Those decisions do not by themselves establish the market value of the asset.

For example, a neighboring business may avoid a costly relocation by acquiring a site. The business's individual benefit can inform its investment decision. An appraisal of market value must determine which benefits and assumptions belong to the relevant market perspective rather than insert one bidder's private objective automatically.

When explaining a calculation, name the perspective. A model based on one investor's required return should not be presented as a market-value opinion merely because it uses a professional looking discount formula.

Discounting recognizes the timing of money

A future payment is not the same as the same amount available now. A discounted analysis converts future cash flows to present amounts using a rate consistent with the type and timing of the cash flows. It can examine several years of operations and the proceeds expected at disposal.

In a one-year teaching example, PHP 1.1 million received at the end of the year has a present amount of PHP 1 million at a 10% annual discount rate: 1.1 million ÷ 1.10. The statement is conditional on the amount, timing and rate. It does not establish a suitable market rate.

Discounted cash flow, or DCF, uses a forecast and can include a terminal or disposal amount at the end of the explicit period. The proceeds must reflect the relevant rights and deductions. If the forecast is for equity, deduct the outstanding loan as appropriate at exit; if it is for the property before financing, do not insert one owner's debt repayment into that property cash flow.

IVS 103 emphasizes consistency between the chosen cash flow and the rate, including the whole-asset or equity perspective, tax treatment and real or nominal basis. It also requires analysis of forecast assumptions for the intended valuation use. [4, Appendix A20.04–A20.05 and A20.13]

NPV and IRR describe a defined cash flow

Net present value, or NPV, is the present value of the specified inflows less the present value of the specified outflows at a stated discount rate. A positive result indicates that the modeled cash flow exceeds the required return represented by that rate, subject to the assumptions.

An initial outlay at time zero is already at the present date. Future payments need discounting from their stated dates. Do not discount an immediate outlay as if it occurs one year later or put the sale proceeds at a different time from the stated disposal.

Internal rate of return, or IRR, is a rate that makes the modeled NPV zero. It is not a guaranteed realized return. Cash-flow patterns with repeated changes between positive and negative signs may have more than one IRR or lack a useful conventional interpretation. Review NPV and the underlying cash flows rather than rely on an isolated IRR label.

This lesson introduces the purpose of discounted measures. Lesson 6 develops the formulas, period matching and calculator procedure. For now, identify what cash flow is being measured, when it occurs and whether it is before or after financing.

Capitalization and discount rates should not be interchanged

A direct capitalization rate relates a representative income to a capital amount. A discount rate converts dated cash flows to present value. Their relationship depends on the income pattern, growth, risk and model. Equal numerical rates do not make the models interchangeable.

For a constant perpetual income under the restrictive assumptions of a simple perpetuity, income divided by a discount rate can produce the present amount. A finite holding period with changing rents, capital work and disposal requires different analysis. Do not apply a perpetuity rule merely because it is shorter.

A growing perpetuity relationship sometimes expresses a capitalization rate as discount rate less constant growth. Its assumptions include a compatible next-period income and continuing growth below the discount rate. It is not a universal way to turn a bank loan rate into a property capitalization rate.

In examination questions, use the model stated and keep its terms straight. If asked for a simple capitalization indication, use the defined NOI and capitalization rate. If asked for a discounted investment result, follow the specified dated cash flows.

5 Debt equity and investor cash flow

Identify where the acquisition money comes from

Debt is capital provided under an obligation to repay according to agreed terms. Equity is the owner’s capital at risk after the relevant obligations. A simple acquisition can combine both sources.

For a PHP 10 million acquisition funded by PHP 6 million debt, acquisition equity is PHP 4 million before transaction costs, fees and additional works. If the owner must also fund PHP 300,000 of costs, the initial equity cash outlay is higher unless another source covers those costs.

Do not confuse original equity contribution with current net equity. A current equity position depends on the current asset amount, outstanding debt and relevant obligations. It is not necessarily the cash originally invested or the amount recoverable immediately from a sale.

Borrowing proceeds are a financing inflow, not rental income or development profit. Repayment of principal is a financing outflow, not a property operating expense under this lesson’s NOI definition. Interest and repayment must nevertheless be considered in the owner’s cash forecast.

Trace the cash remaining after debt service

Debt service includes the scheduled interest and principal payments for the period. Subtract it from the relevant property cash available before debt to obtain the next step toward cash to equity. Where capital expenditure and other owner cash requirements exist, include them in the appropriate position.

For the teaching property with PHP 900,000 NOI, suppose the annual loan payment is PHP 700,000 and there is no capital expenditure or investor income tax in the exercise. Pre-tax cash after debt service is PHP 200,000. This is less than NOI because the financing obligation consumes cash.

If the PHP 700,000 includes principal, some payment reduces debt. That debt reduction can affect equity, but it is not an additional cash distribution. Keep cash return and changes in the equity position separate.

A property can produce positive NOI and negative owner cash when debt service or other requirements exceed available cash. The sign of owner cash does not, by itself, establish that the underlying property has no market value.

Level of analysis	Includes	Financing treatment
Property operations	Income and defined operating expenses.	NOI excludes debt service.
Property cash before financing	Relevant operation and capital cash requirements.	Financing remains separate.
Equity cash flow	Owner investment, funding and remaining cash including exit.	Includes relevant debt draws, service and repayment.
Accounting profit	Income and expenses under the relevant reporting framework.	Classification and noncash items require reconciliation.

Cash on cash return measures a limited annual result

A simple annual cash-on-cash return divides the defined annual cash available to equity by the stated initial equity cash investment. State whether the numerator is before tax and what outlays the denominator includes.

If annual pre-tax cash is PHP 200,000 and initial equity cash is PHP 4 million, the return is 5%. It does not include unrealized appreciation or count principal repayment as distributable cash. It is not a full holding-period IRR.

The measure can change when financing changes. It can also be overstated if the denominator omits fees or required refurbishment funded by the owner. Use the actual scope of initial cash needed in the analysis.

Compare the same measure across alternatives. A cash-on-cash percentage on one proposal should not be ranked directly against a gross rental yield on another as though both describe the same performance.

$$\text{Annual cash on cash percentage} = \frac{\text{Defined annual cash to equity}}{\text{Initial equity cash investment}} \times 100$$

Leverage can improve or worsen the equity result

Leverage uses borrowing to fund part of the investment. Under simple interest-only assumptions, if the property income yield exceeds the debt interest cost, borrowing can raise the current cash return on the smaller equity contribution. If the property yield falls below that cost, the effect reverses.

Consider a PHP 10 million property with PHP 6 million interest-only debt at 8%. Annual interest is PHP 480,000 and acquisition equity is PHP 4 million. Assume no fees, capital expenditure or investor income tax and no change in asset amount for this annual illustration.

The following table holds the borrowing constant and changes annual NOI. The unfinanced operating yield uses NOI divided by PHP 10 million. The equity cash yield uses NOI less PHP 480,000 divided by PHP 4 million. These are limited annual measures, not total returns.

Annual NOI	Property yield	Cash after interest	Equity cash yield
PHP 600,000	6%	PHP 120,000	3%
PHP 900,000	9%	PHP 420,000	10.5%
PHP 1,200,000	12%	PHP 720,000	18%

The debt does not create the property's income. It changes how the remaining cash is shared and the equity capital required. A fall in income has a larger percentage effect on the equity cash yield in this illustration.

At maturity, the interest-only principal still needs repayment. An annual yield excluding that maturity event cannot establish that the whole investment is safe. When comparing leverage across full holding periods, include principal, fees, sale or refinancing assumptions and the risk of future cash shortfalls.

LTV and DSCR measure different concerns

Loan to value, or LTV, divides the relevant outstanding or proposed loan amount by the stated property value. Specify the date and denominator. A loan-to-cost measure uses cost instead; it is different when cost and value differ.

Debt service coverage ratio, or DSCR, compares the defined income or cash available for debt service with the scheduled service for the same period. For this lesson's simplified ratio, use annual NOI divided by annual debt service. Actual lender definitions can require adjustments.

An LTV of 60% does not establish enough income to make repayments. A DSCR of 1.25 means the defined numerator is 1.25 times the scheduled denominator. It does not establish compliance with every loan condition or guarantee future occupation.

No universal legally required DSCR or LTV threshold is assumed in this lesson. Review the actual lender covenant and definitions. A ratio of 1.00 means only that the stated numerator equals the denominator, leaving no buffer in that simplified measure.

$$\text{LTV percentage} = \frac{\text{Relevant loan amount}}{\text{Stated property value}} \times 100$$

$$\text{Simplified DSCR} = \frac{\text{Annual NOI}}{\text{Annual scheduled debt service}}$$

6 Compare financing structures

Read the contract terms together

A financing comparison requires principal, net proceeds, interest basis, payment frequency, maturity, fees and repayment structure. A headline annual rate cannot describe the entire cost or cash requirement.

A fixed rate remains fixed for its stated period. It does not necessarily remain fixed for the entire loan if the contract specifies a later reset. A variable rate can change under an agreed reference and margin. Investigate caps, reset timing and other terms where relevant.

The loan term is the time until the obligation matures. The amortization period used to calculate instalments may be longer. If a loan matures before the calculated repayments fully extinguish it, a remaining balance can become payable as a balloon.

Monthly and annual repayment models differ. State when payments occur and how interest is calculated. The annual examples here use end-of-year payments and interest on opening outstanding principal. They are not monthly bank quotations.

Interest only leaves principal outstanding

In an interest-only structure, scheduled periodic payments cover interest during the stated phase. The principal is not reduced by those interest payments. It must be repaid under the maturity terms or through an agreed later amortizing phase.

For PHP 6 million at 8% with annual interest-only payments, annual interest is PHP 480,000. If the full principal is due after ten years, the final year's required payment is PHP 6.48 million when interest and principal are both due, assuming no other changes.

The low ordinary annual payment can make current cash look strong. The remaining principal introduces an exit or refinancing requirement. A cash forecast that records only interest and omits the maturity payment is incomplete.

Do not assume refinancing is automatic. A future lender can reassess value, income, borrower strength and terms. The owner may need additional equity or a sale if refinancing proceeds are insufficient.

Equal principal reduces payment over time

Under an equal-principal structure, a constant portion of principal is repaid each period and interest is calculated on the remaining balance. Total payment normally declines as the balance falls when the rate remains unchanged.

For PHP 6 million repaid over ten annual periods, annual principal repayment is PHP 600,000. At 8%, year-one interest is PHP 480,000 and total payment is PHP 1,080,000. Year-two opening principal is PHP 5.4 million, interest is PHP 432,000 and total payment is PHP 1,032,000.

At year ten, opening principal is PHP 600,000, interest is PHP 48,000 and total payment is PHP 648,000. The principal is then extinguished under the assumptions. Early payment requirements are higher than later ones.

The structure can reduce total nominal interest compared with a slower-repayment structure under comparable assumptions. The borrower must still support the early payments. A smaller lifetime interest total does not remove a first-year funding shortfall.

Level payments divide each payment between interest and principal

A fully amortizing level-payment loan has the same scheduled payment each period under unchanged rates and assumptions. Early payments contain more interest and less principal; later payments contain less interest and more principal.

For PHP 6 million at 8% over ten end-of-year annual payments, the calculated payment is approximately PHP 894,176.93. The first payment comprises PHP 480,000 interest and PHP 414,176.93 principal. The closing principal is approximately PHP 5,585,823.07.

The payment is not PHP 600,000 principal plus the original interest every year. That describes a different calculation. The level amount depends on the rate, number and timing of payments. Lesson 6 derives the annuity formula.

Rounding can create a small final adjustment in an actual schedule. A professional model keeps sufficient internal precision and reports rounded amounts consistently. Do not calculate later balances by repeatedly discarding material decimals.

Structure at 8%	Year 1 service	Principal after year 1	Maturity treatment
Interest only	PHP 480,000	PHP 6,000,000	Full principal remains due.
Equal principal	PHP 1,080,000	PHP 5,400,000	Extinguished after 10 scheduled payments.
Level fully amortizing	PHP 894,176.93	PHP 5,585,823.07	Extinguished after 10 calculated payments.

All three examples use the same initial principal, rate and annual periods. Their first-year payments differ because the principal repayment patterns differ. They cannot be ranked by payment alone without considering maturity and the borrower's cash capacity.

At PHP 900,000 annual NOI, the level-payment loan leaves about PHP 5,823.07 before capital expenditure and investor tax. The interest-only structure leaves PHP 420,000 in an ordinary year but retains the full principal obligation. The equal-principal first-year payment exceeds NOI by PHP 180,000. This is a financing comparison, not three different property NOI amounts.

Fees and net proceeds affect the effective cost

BSP guidance on transparent loan pricing explains effective interest rate as a cash-flow measure using the net proceeds and payments, including relevant charges incident to credit. The guidance distinguishes the contractual rate from the fuller borrowing cost. [3, questions 2 and 4–6]

For an original one-year example, a PHP 1 million obligation provides only PHP 970,000 net proceeds after a PHP 30,000 credit charge. The borrower pays PHP 1.08 million at the year end and nothing earlier. The one-period effective cost is 1.08 million ÷ 970,000 − 1, or approximately 11.34%.

The rate is higher than the 8% interest amount measured against PHP 1 million because the usable proceeds are lower. If repayments occur monthly or fees occur at other dates, the full payment schedule is required. Do not use the one-payment ratio for a multi-payment loan.

Distinguish a nominal annual rate with periodic compounding from a fee-inclusive effective rate. For example, 12% nominal compounded monthly corresponds to about 12.68% annual effective before additional charges,

using (1 + 0.12 ÷ 12) raised to 12, less 1. Actual credit disclosure also requires the relevant proceeds and charges.

Test resets maturity and funding gaps

A rate increase can change a floating or refinanced payment. On the teaching PHP 6 million fully amortizing annual loan over ten years, raising the starting rate from 8% to 10% increases the calculated annual payment from approximately PHP 894,176.93 to PHP 976,472.37. At PHP 900,000 NOI, the latter exceeds NOI.

This illustration recomputes a new ten-year payment from the same initial principal. It is not a calculation of a reset midway through an existing schedule. A midway reset needs the actual remaining principal, remaining periods and contract terms.

Maturity risk remains separate from ordinary annual coverage. A loan can have strong coverage of routine interest while lacking a credible plan for its balloon. Consider both in a cash forecast.

For development finance, drawdowns and expenditure timing matter. A lender may reimburse certified costs only after the developer funds them. Presale collections may occur later than construction payments. A profitable final result can therefore coexist with a temporary funding need.

7 Development economics and investment risk

Profit margin and return on cost use different denominators

A simple development profit is the stated revenue less the stated total cost. The cost scope must be clear: land, works, fees, permits, marketing, financing and other relevant items can affect the result. A construction contract sum alone is not necessarily total development cost.

Profit margin on revenue divides profit by revenue. Profit on cost divides profit by cost. With PHP 24 million revenue and PHP 20 million total cost, profit is PHP 4 million. Margin is 16.67% of revenue; profit on cost is 20%. The same profit produces different percentages because the baselines differ.

Neither simple percentage accounts for the timing of every cash flow. A profit of PHP 4 million earned after five years differs from the same profit earned after one year. Discounted analysis helps address timing, while a funding schedule addresses when cash is needed.

Also distinguish forecast gross development value from realized receipts. A proposed aggregate selling amount depends on units, prices and sale assumptions. Selling costs, cancellation, collection timing and other deductions may affect what the project actually receives.

$$\text{Profit margin percentage} = \frac{\text{Defined development profit}}{\text{Defined revenue}} \times 100$$

$$\text{Profit on cost percentage} = \frac{\text{Defined development profit}}{\text{Defined total cost}} \times 100$$

A budget cannot compel the market to repay its cost

A developer can measure costs accurately and still face a project whose product or pricing does not match effective demand. Cost control supports feasibility but does not independently establish value.

If the teaching project's cost rises from PHP 20 million to PHP 22 million while supported revenue stays at PHP 24 million, forecast profit falls from PHP 4 million to PHP 2 million. The developer cannot restore the original margin simply by adding a higher selling price unless the market supports it.

Conversely, cost savings may improve a project's margin without increasing the completed property's market value by the saved amount. A reduction in unnecessary work can benefit the developer's economics while leaving the product's utility and market price broadly unchanged.

Use the highest and best use tests from Lesson 3. A technically possible project still needs supported revenue, complete relevant costs and a credible period of development and sale. A positive simple margin can be insufficient when risk and required return are considered.

Risk needs an identified exposure

Investment risk concerns uncertainty in the amount, timing and realizability of benefits and obligations. Identify the exposure rather than use the word as a general explanation for any rate.

Market risk can involve rents, prices, take-up and competing supply. Operating risk can involve expenses, major repairs or service disruption. Development risk can involve permissions, completion, contractor performance and cost. Financing risk can involve payment terms, resets, drawdown conditions and refinancing.

Liquidity risk concerns the ability to realize an interest on acceptable terms within the needed period. A quoted asset amount does not establish that a sale can be completed immediately at that amount. Transaction costs and the available buyer pool can matter.

The appropriate response can be better evidence, a revised forecast, supported allowances, sensitivity analysis or a different decision. Do not raise a discount rate arbitrarily to cover unidentified problems. The rate and cash-flow treatment must remain coherent, and the same risk should not be counted twice without a separate basis.

Sensitivity analysis changes a defined input

A sensitivity analysis shows how a result changes when a specified input changes while others are held constant. A scenario can change several related assumptions together. Both help a reader understand dependence on assumptions; neither guarantees the outcome.

For the teaching property, holding NOI at PHP 900,000 gives a simple capitalization indication of PHP 10 million at 9% and PHP 9 million at 10%. The decline is 10%, although the rate rises by only one percentage point. The relationship is inverse and nonlinear.

Now allow NOI to fall to PHP 810,000 while the capitalization rate rises to 10%. The indication becomes PHP 8.1 million. This combined case represents two changes. Describe them rather than attribute the whole movement solely to the rate.

Separate the supported central estimate from a stress assumption. A difficult stress case can show a funding vulnerability without being the most likely outcome. If probabilities are assigned, justify them rather than invent exact weights for convenience.

Teaching scenario	NOI	Cap rate	Arithmetic indication
Base	PHP 900,000	9%	PHP 10,000,000
Rate sensitivity only	PHP 900,000	10%	PHP 9,000,000
Income and rate stress	PHP 810,000	10%	PHP 8,100,000

8 Philippine REIT investment context

A REIT share is a corporate investment interest

RA 9856 provides the Philippine legal framework for REITs. Investment is through subscription to or purchase of REIT shares; the shares are subject to registration and listing requirements. The investor holds shares in the entity, not a surveyed portion of each building. [5, sections 4–5]

A REIT can connect capital-market investment with income-producing property. For examinee reasoning, separate the income of the properties, the entity's expenses and financing, and the cash distributed to shareholders. These levels are related but not identical.

The stock exchange's educational information distinguishes a Philippine REIT corporation from a trust in the technical legal sense and explains that income and dividend outcomes can vary with property performance. [6]

An investor can experience changes in share price even when the underlying buildings have not physically changed. Financing, lease prospects, governance, capital-market conditions and expectations can affect the investment. A property appraisal and a quoted share price describe different interests.

Ninety per cent refers to distributable income

Section 7 of RA 9856 requires annual distribution of at least 90% of distributable income as dividends, subject to the statutory provisions. Distributable income is a defined adjusted amount under section 3(j). The percentage does not mean a 90% annual return on the investor's share purchase price. [5]

For a teaching example with distributable income already established at PHP 100 million, 90% is PHP 90 million. This is a simple application to the supplied distributable-income figure. Calculating that figure from actual accounts requires the governing definitions and relevant adjustments.

Do not apply 90% directly to gross rental revenue or to the appraised value of the properties. Likewise, an unrealized increase in a building's value is not automatically a cash dividend of the same amount.

The SEC's official issuance index lists Memorandum Circular No. 1, series of 2026, revising the 2020 REIT implementing rules. Current study and professional use therefore require the amended framework rather than an assumption that all 2020 procedural details remain unchanged. This lesson covers the statutory investment and payout concepts; detailed eligibility, structure and procedural requirements belong in the legislation lessons. [7]

Dividend yield and total share return differ

A simple dividend yield divides the stated annual dividend per share by the stated share price. If a fictional annual dividend is PHP 0.50 and the share price is PHP 10.00, the indicated gross dividend yield is 5%. Label whether the dividend is historical or projected and whether taxes or fees are excluded.

If the price changes to PHP 8.00 while the same assumed dividend remains, the indicated yield becomes 6.25%. The higher percentage does not establish a stronger property portfolio. It arises from the lower price denominator and an unchanged dividend assumption.

A one-period total share return includes the dividend and price movement under the stated treatment of costs and tax. Buying at PHP 10, receiving PHP 0.50 and selling at PHP 9.50 produces a zero gross return before fees and tax. The cash dividend is offset by the capital loss.

A required payout proportion cannot guarantee the dividend amount, share price or investor's realized return. Evaluate the relevant accounts, disclosures, leases, debt and investment terms. The lesson examples explain the measures and do not recommend a particular security.

9 Ten worked cases

Attempt each case before reading the answer. Record the income definition, capital basis, period and relevant exclusions. Use a separate sheet for longer workings.

Case 1 Build the property income schedule

Question: A fictional property has potential rent of PHP 1,800,000 a year. Vacancy and collection loss equal 10% of potential rent. Other income is PHP 40,000 and is not subject to that allowance in the exercise. Owner operating expenses are PHP 560,000. Annual debt service is PHP 720,000. Calculate effective gross income, NOI and cash after debt service, excluding capital expenditure and investor income tax.

Answer: Rental deductions are PHP 180,000. Effective gross income = 1,800,000 − 180,000 + 40,000 = PHP 1,660,000. NOI = 1,660,000 − 560,000 = PHP 1,100,000. Cash after debt service = 1,100,000 − 720,000 = PHP 380,000.

Reasoning: Debt service follows NOI because it is a financing obligation. The PHP 380,000 is the defined cash after debt, not an alternative NOI. Additional owner cash requirements would change the distributable cash.

Case 2 Examine supply and absorption

Question: A market begins with 200 equal-sized rental units, of which 180 are occupied. During the year, 50 units are completed and occupied stock rises to 210. There are no removals. Calculate net absorption and the beginning and ending vacancy rates. Has vacancy improved?

Answer: Net absorption = 210 − 180 = 30 units. Beginning vacancies = 20 of 200, or 10%. Ending stock = 250 and vacancies = 40, or 16%. Occupation increased, but vacancy worsened because completions exceeded net additional occupation.

Reasoning: Positive take-up and rising vacancy can occur together. Inspect achieved rents and concessions rather than infer a strong landlord position from take-up alone.

Case 3 Apply a capitalization sensitivity

Question: Representative NOI is PHP 1,200,000 annually. Calculate the simple indication at 8% and at 10%, holding income constant. What is the percentage decline measured from the 8% result? Are these rates established market rates?

Answer: At 8%, the indication is 1,200,000 ÷ 0.08 = PHP 15,000,000. At 10%, it is PHP 12,000,000. The decline is PHP 3,000,000 ÷ PHP 15,000,000 = 20%. The supplied rates are exercise assumptions.

Reasoning: The rate rises by two percentage points, while the indication falls by 20%. An actual appraisal must support the income and rate; the arithmetic alone is not that support.

Case 4 Separate property and equity yields

Question: A PHP 10 million acquisition is funded with PHP 6 million interest-only debt at 8%. Annual NOI is PHP 900,000. Ignore fees, capital works, investor tax and value changes. Calculate acquisition equity, annual interest, ordinary-year cash to equity, property income yield and equity cash yield.

Answer: Equity is PHP 4 million. Interest is PHP 480,000. Ordinary-year cash is PHP 420,000. Property income yield = 900,000 ÷ 10,000,000 = 9%. Equity cash yield = 420,000 ÷ 4,000,000 = 10.5%.

Reasoning: The higher equity cash yield results from the financing structure under these assumptions. It excludes the later PHP 6 million principal repayment and cannot establish the full holding-period return.

Case 5 Interpret leverage in a weaker income year

Question: Keep the price and interest-only borrowing in Case 4 unchanged, but reduce NOI to PHP 600,000. Calculate the ordinary-year cash yield to equity and compare it with the property income yield. What does the comparison show?

Answer: Cash after interest = 600,000 − 480,000 = PHP 120,000. Equity cash yield = 120,000 ÷ 4,000,000 = 3%. Property income yield is 6%. Leverage reduces the equity cash yield in this year because the property income yield is below the 8% debt interest rate in the simplified model.

Reasoning: Borrowing does not guarantee a higher return. The principal still remains outstanding, and capital expenditure could reduce cash further.

Case 6 Check LTV and coverage

Question: A property value supplied for the exercise is PHP 12 million. Proposed debt is PHP 7.2 million. Annual NOI is PHP 1.08 million and annual debt service is PHP 864,000. Calculate LTV, simplified DSCR and cash after debt service. Does either ratio certify loan approval?

Answer: LTV = 7.2 ÷ 12 = 60%. DSCR = 1,080,000 ÷ 864,000 = 1.25 times. Cash after debt service is PHP 216,000 before the excluded capital expenditure and investor tax. Neither ratio certifies approval.

Reasoning: LTV measures debt relative to the stated value. DSCR measures the stated income relative to service. Actual lender requirements, definitions and other conditions must be checked separately.

Case 7 Compare first year principal repayment

Question: Compare three PHP 6 million loans at 8% for ten annual periods: interest-only; equal-principal; and a fully amortizing level loan with the provided annual payment of PHP 894,176.93. Calculate first-year principal reduction for each and identify the largest first-year total payment.

Answer: Interest-only principal reduction is zero and first-year service is PHP 480,000. Equal-principal reduction is PHP 600,000 and service is PHP 1,080,000. The level loan’s interest is PHP 480,000, so principal reduction is PHP 414,176.93. Equal-principal has the largest first-year service.

Reasoning: Level payment does not mean equal principal. The interest-only ordinary payment is lowest, but it leaves the full principal obligation. Compare the full structure, not only one year.

Case 8 Measure profit on different bases

Question: A teaching development forecasts PHP 30 million receipts and PHP 24 million total costs under the stated scope. Calculate simple profit, profit margin on receipts and profit on cost. If costs rise to PHP 27 million while receipts remain unchanged, what happens to the margin?

Answer: Initial profit is PHP 6 million. Margin = 6 ÷ 30 = 20%. Profit on cost = 6 ÷ 24 = 25%. With costs of PHP 27 million, profit is PHP 3 million and margin falls to 10%.

Reasoning: The cost increase does not compel a higher market selling price. These simple percentages exclude the timing analysis needed for a discounted return and funding schedule.

Case 9 Interpret a two year discounted proposal

Question: An unfinanced teaching investment requires PHP 10 million now. It produces PHP 900,000 net property cash at each year end and PHP 11 million net disposal proceeds at the end of year two, before any investor income tax. At a supplied annual discount rate of 10%, calculate NPV. There are no other cash flows.

Answer: Year-one present cash = 900,000 ÷ 1.10 = PHP 818,181.82. Year-two cash including disposal is PHP 11,900,000; present amount = 11,900,000 ÷ 1.10^2 = PHP 9,834,710.74. Total present inflows are PHP 10,652,892.56. NPV = PHP 652,892.56.

Reasoning: The initial outlay occurs now and is not discounted one period. Disposal and year-two operating cash occur together. The positive model result depends on the forecasts and rate; it is not an independently supported market appraisal.

Case 10 Separate a dividend from total return

Question: A fictional REIT has a supplied distributable income of PHP 80 million. What is 90% of that amount? Separately, an investor buys one teaching share at PHP 10, receives PHP 0.60 and sells at PHP 9.20 after one year. Calculate the dividend yield on purchase price and gross total return, ignoring fees and tax.

Answer: Ninety per cent of PHP 80 million is PHP 72 million. Dividend yield is 0.60 ÷ 10 = 6%. Total return = (0.60 + 9.20 − 10) ÷ 10 = −2%.

Reasoning: The payout percentage concerns the entity’s distributable income. The dividend yield concerns the investor’s price denominator. Total return also includes the capital movement. None of the percentages can substitute for the others.

10 Debt and equity study worksheet

Prepare a one-page analysis from the fictional information below. Show each calculation and state its definition. Use a separate sheet for the written conclusion.

Input	Exercise assumption
Acquisition price and value	PHP 12,000,000 paid at time zero; also the supplied value for the LTV exercise.
Potential annual rent	PHP 1,800,000.
Rental deduction	10% of potential rent for vacancy and collection loss.
Other income	PHP 60,000; unaffected by the rental deduction in the exercise.
Owner operating expenses	PHP 600,000, including property taxes.
Loan	PHP 7,200,000 provided at acquisition; no fees.
Repayment	Interest only at 8% for five annual periods; all principal due at year five.
Other exclusions	No capital expenditure, investor income tax, acquisition costs or value change except where explicitly requested.

1. Calculate effective gross income and NOI.

Your response: _____

2. Calculate acquisition equity, LTV and ordinary-year debt service.

Your response: _____

3. Calculate ordinary-year cash to equity, its cash-on-cash return and simplified DSCR.

Your response: _____

4. Calculate total scheduled service at the end of year five, including the principal then due.

Your response: _____

5. Hold rent and other income constant but increase operating expenses to PHP 720,000. Recalculate NOI and ordinary-year cash yield to equity.

Your response: _____

6. Using the base NOI, calculate simple capitalization indications at assumed rates of 9% and 10%. Explain why they are sensitivities rather than two certified market values.

Your response: _____

7. Write 100–150 words explaining property performance, leverage, the maturity obligation and the additional evidence needed for a lending or appraisal decision.

Your response: _____

11 Review and essential terminology

Check the amount before the formula

- Identify the interest and whether the perspective is property or equity.
- Name the income or cash-flow definition and the relevant exclusions.
- Match the period, rate and payment dates.
- State the denominator behind every percentage.
- Include principal at repayment or exit and avoid counting it twice.
- Keep market evidence separate from fictional sensitivity assumptions.

Common error	Correct reasoning
Deducting debt service inside NOI	Keep property operation and financing separate under the stated model.
Calling gross rental yield an equity cash return	Match the numerator and denominator.
Treating an interest-only payment as full amortization	Principal remains outstanding until repaid.
Applying the policy rate directly as a cap rate	Investigate the relevant property and market inputs.
Assuming rising costs force rising prices	Test effective demand and supported revenue.
Equating 90% payout with 90% investor return	Use distributable income for the payout and price for investor return.

Terms to know

Term	Meaning in this lesson
Absorption	Take-up during a stated period under a defined measure.
Capitalization rate	A rate matching representative income to a capital amount.
Cash on cash	Defined annual equity cash divided by initial equity cash invested.
Debt service	Scheduled interest and principal payments for a period.
DSCR	Defined available income or cash divided by scheduled debt service.
Equity	The owner’s investment or residual position after relevant obligations.
LTV	Relevant loan amount divided by the stated property value.
NOI	Effective gross income less defined property operating expenses before financing.
NPV	Present inflows less present outflows at a specified discount rate.
Real return	Return measured after adjusting for purchasing-power change.
Refinancing risk	Uncertainty about replacing debt on acceptable terms when required.
Vacancy	Unoccupied units or area relative to corresponding stock.

12 Original practice test

Choose the single best answer. Suggested time: 35 minutes. All 20 questions are original learning exercises, not actual or recalled PRC items. Use the supplied assumptions and ignore items expressly excluded.

1. A market adds 40 equal-sized rental units while occupied stock increases by 15. Which statement is best?

A. Positive net absorption can coexist with rising vacancy.

B. Vacancy must fall because occupied units increased.

C. All new units have been absorbed.

D. The rent increase must equal 15%.

2. Potential annual rent is PHP 1,200,000. Rental deductions are 10%; other income is PHP 20,000 and unaffected. Operating expenses are PHP 350,000. What is NOI before financing?

A. PHP 730,000

B. PHP 750,000

C. PHP 870,000

D. PHP 1,100,000

3. Which item is excluded from NOI under this lesson's definition?

A. Routine owner-paid repairs

B. Owner-paid property taxes

C. Loan principal repayment

D. Property management expense

4. Annual NOI is PHP 800,000 and the supplied cap rate is 8%. What is the simple indication?

A. PHP 6,400,000

B. PHP 640,000

C. PHP 1,000,000

D. PHP 10,000,000

5. NOI stays unchanged while the assumed cap rate rises from 8% to 10%. What happens to the simple indication?

A. It rises by 2%.

B. It falls by 2%.

C. It falls by 20% from the 8% result.

D. It stays unchanged.

6. A PHP 10 million property has PHP 6 million interest-only debt at 8% and PHP 900,000 NOI. With no other items, what is ordinary-year cash after interest?

A. PHP 420,000

B. PHP 480,000

C. PHP 900,000

D. PHP 300,000

7. Using Question 6, initial acquisition equity is PHP 4 million. What is the defined ordinary-year equity cash yield?

A. 9%

B. 8%

C. 15%

D. 10.5%

8. A loan is PHP 7.5 million against a stated property value of PHP 12.5 million. What is LTV?

A. 40%

B. 60%

C. 66.67%

D. 75%

9. NOI is PHP 1,000,000 and annual debt service is PHP 800,000. What is simplified DSCR?

A. 80%

B. PHP 200,000

C. 1.25 times

D. 1.80 times

10. A PHP 5 million interest-only loan is due after five years. Does ordinary interest payment eliminate principal?

A. No; principal still requires repayment under maturity terms.

B. Yes; principal disappears after five payments.

C. Yes; only if NOI is positive.

D. No; but repayment can always be refinanced automatically.

11. PHP 4 million is repaid through five equal annual principal portions at 8% on opening balance. What is the first-year total payment?

A. PHP 800,000

B. PHP 320,000

C. PHP 864,000

D. PHP 1,120,000

12. A level loan's first payment is PHP 500,000 and first-period interest is PHP 180,000. What principal is repaid?

A. PHP 680,000

B. PHP 320,000

C. PHP 180,000

D. PHP 500,000

13. A one-year loan provides PHP 970,000 net cash and requires a single PHP 1,080,000 repayment at year end. What is its one-period effective cost?

A. 8%

B. 3%

C. Approximately 11.34%

D. Approximately 10.19%

14. A project has PHP 25 million revenue and PHP 20 million total cost. What is its simple profit margin on revenue?

A. 20%

B. 25%

C. 5%

D. 80%

15. A forecast includes expected inflation in future cash flows. Which rate basis should be consistent with it?

A. An unrelated quoted loan rate

B. A zero discount rate

C. A real rate without adjustment merely because it is lower

D. A matching nominal discount-rate basis

16. At a supplied annual discount rate of 10%, what is the present amount of PHP 1.1 million received in one year?

A. PHP 1.21 million

B. PHP 1 million

C. PHP 990,000

D. PHP 1.1 million

17. What does a positive modeled NPV at a stated required rate mean?

A. The specified forecast exceeds that rate's required result under its assumptions.

B. The sale proceeds are guaranteed.

C. The amount is automatically market value.

D. Debt can be omitted from any equity forecast.

18. A REIT's distributable income is supplied as PHP 50 million. What is 90% of it?

A. PHP 5 million

B. PHP 55 million

C. PHP 45 million

D. 90% return on every share's purchase price

19. A teaching share is bought for PHP 10, pays PHP 0.50 and is sold for PHP 9.50 after a year. What is gross total return before fees and tax?

A. 5%

B. 0%

C. −5%

D. 10%

20. A profitable development receives buyer payments after its construction payments fall due. What should the analyst examine?

A. Only the final profit percentage

B. Only the site area

C. A guaranteed price uplift

D. The timing of funding and available cash sources

13 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	A	11	D
2	B	12	B
3	C	13	C
4	D	14	A
5	C	15	D
6	A	16	B
7	D	17	A
8	B	18	C
9	C	19	B
10	A	20	D

1. A Occupied stock can rise more slowly than total stock. Here vacant stock increases by 25 units. Rental changes are not established by the unit counts.

2. B Effective gross income is 1,200,000 − 120,000 + 20,000 = PHP 1,100,000. Deduct PHP 350,000 operation to obtain PHP 750,000 NOI.

3. C Principal repayment is financing. The other specified owner expenses belong to property operation under the lesson convention.

4. D 800,000 ÷ 0.08 = PHP 10,000,000. Use the rate as a decimal. The amount is conditional on the provided inputs.

5. C The ratio of new to old indication is 0.08 ÷ 0.10 = 0.80. The decline is 20%, while the rate change is two percentage points.

6. A Interest is 6,000,000 × 0.08 = PHP 480,000. Cash is 900,000 − 480,000 = PHP 420,000. Principal remains outstanding.

7. D 420,000 ÷ 4,000,000 × 100 = 10.5%. The 9% figure is NOI divided by the PHP 10 million price, a different measure.

8. B 7.5 ÷ 12.5 × 100 = 60%. The ratio does not establish income coverage or loan approval.

9. C 1,000,000 ÷ 800,000 = 1.25. PHP 200,000 is remaining cash before other requirements, not the ratio.

10. A Interest-only payments do not reduce principal. Positive NOI does not extinguish debt, and refinancing is not guaranteed.

11. D Annual principal is 4,000,000 ÷ 5 = PHP 800,000. First-year interest is PHP 320,000; total service is PHP 1,120,000.

12. B Principal is payment less interest: PHP 320,000. The whole payment is not a principal reduction.

13. C 1,080,000 ÷ 970,000 − 1 = approximately 11.34%. Net proceeds and repayment timing matter.

14. A Profit is PHP 5 million; margin is 5 ÷ 25 = 20%. The 25% figure is profit on cost, with a different denominator.

15. D Nominal cash flows and the discount rate need consistent inflation treatment. The appropriate rate still requires support for the cash-flow perspective and risk.

16. B 1,100,000 ÷ 1.10 = PHP 1,000,000. The future receipt must be discounted, not multiplied by the growth factor.

17. A A positive NPV is conditional on cash flows, timing and rate. It does not guarantee forecasts or convert an investor model automatically into a market appraisal.

18. C 50,000,000 × 0.90 = PHP 45,000,000. The payout proportion is applied to the provided distributable income, not the investor's purchase price.

19. B Dividend plus sale less purchase is 0.50 + 9.50 − 10 = zero. The dividend yield alone is 5%, but the capital loss offsets it.

20. D Profit and liquidity differ. A cash schedule must identify the funding gap and whether debt draws, equity or collections cover it when needed.

Worksheet model responses

1. Rental deductions = PHP 180,000. Effective gross income = 1,800,000 − 180,000 + 60,000 = PHP 1,680,000. NOI = 1,680,000 − 600,000 = PHP 1,080,000.

2. Acquisition equity = 12,000,000 − 7,200,000 = PHP 4,800,000. LTV = 7,200,000 ÷ 12,000,000 = 60%. Ordinary annual interest-only service = 7,200,000 × 8% = PHP 576,000.

3. Ordinary-year cash = 1,080,000 − 576,000 = PHP 504,000. Cash-on-cash return = 504,000 ÷ 4,800,000 = 10.5%. Simplified ordinary-year DSCR = 1,080,000 ÷ 576,000 = 1.875 times. These exclude the specified other requirements.

4. Year-five scheduled payment including maturity principal = 576,000 + 7,200,000 = PHP 7,776,000. Routine interest coverage does not establish the ability to meet this obligation. Identify whether sale, cash reserves or appropriately supported refinancing is intended.

5. With operating expenses of PHP 720,000, NOI = 1,680,000 − 720,000 = PHP 960,000. Ordinary cash = 960,000 − 576,000 = PHP 384,000. Cash yield to equity = 384,000 ÷ 4,800,000 = 8%. The expense increase reduces both NOI and remaining owner cash.

6. Base NOI of PHP 1,080,000 gives PHP 12,000,000 at an assumed 9% cap rate and PHP 10,800,000 at 10%. These are arithmetic sensitivities. Market evidence must support the representative income, rate, rights and circumstances before an appraisal conclusion is formed.

7. Example conclusion: “Under the supplied assumptions, the property produces PHP 1.08 million annual NOI before financing. The PHP 7.2 million interest-only loan requires PHP 576,000 annually, leaving PHP 504,000 before the excluded capital and tax items. This gives a 10.5% ordinary-year cash yield on PHP 4.8 million acquisition equity. The 1.875 ordinary-year coverage ratio concerns routine interest service; it does not resolve the PHP 7.776 million maturity payment. A credible funding or disposal plan remains necessary. Expense stress lowers the equity cash yield to 8%. The capitalization results depend on assumed rates. A lending or appraisal decision needs verified income, expenses, rights, market-rate evidence, full contract terms and relevant capital expenditure.”

Use errors to direct your next study session

For each error, identify whether the problem was the numerator, denominator, timing, rate or interpretation. Redo the related case with the correct labels. A correct number with the wrong meaning is still an appraisal reasoning error.

This test is a lesson diagnostic, not a prediction of PRC performance. Before beginning Lesson 6, you should be able to trace property income into equity cash and explain why an interest-only annual payment does not represent the full repayment obligation.

14 Sources and examination preparation status

The PRC's August 2024 examination program includes real estate finance and economics, practical appraisal mathematics and the REIT Law among its published coverage headings. These verified headings support this lesson's subject selection. The teaching sequence, question count and numerical assumptions are editorial choices. [1, p. 1]

This edition supports preparation for an intended 2027 examination. The final 2027 coverage, weighting and instructions must be checked against PRC issuances when published. The lesson is independently authored and does not represent PRC endorsement.

Philippine valuation work must use the applicable national standards and legal framework. The source notes identify the particular IVS concepts checked for this lesson. The listed PVS third edition is the national-standard reading reference; it should be consulted alongside the relevant national issuances rather than replaced by the lesson's simplified teaching models. [8]

1 PRC examination coverage

Professional Regulatory Board of Real Estate Service. Program of the Real Estate Appraisers Licensure Examination on August 8 2024 in NCR, page 1.
https://www.prc.gov.ph/sites/default/files/exam%20program%20appraiser%20august%202024%20%28rev%29.pdf

2 Monetary transmission concepts

Tuaño-Amador, Glindro and Claveria. Some Perspectives on the Monetary Policy Transmission Mechanisms in the Philippines. Bangko Sentral Review 2009, sections 1 and 3. This is a conceptual research reference, not a current policy-rate quotation.
https://www.bsp.gov.ph/Media_And_Research/Publications/BS09_A2.pdf

3 Transparent loan pricing

Bangko Sentral ng Pilipinas. FAQs on Circular No. 730, Version 2, especially questions 2 and 4–6 on proceeds, payments and effective interest rate.
https://www.bsp.gov.ph/Regulations/FAQ/FAQ_TNT.pdf

4 Independently checked valuation concepts

International Valuation Standards Council. IVS effective 31 January 2025. IVS 102 Appendix A40 and IVS 103 Appendix A20.04–A20.05 and A20.13. Official standards text hosted by SAICA.
https://saicawebprstorage.blob.core.windows.net/uploads/resources/IVS-effective-31-January-2025.pdf

5 Statutory REIT concepts

Republic Act No. 9856. Sections 3(j), 4, 5 and 7. Statutory text hosted by the Lawphil Project. Detailed application requires the amended implementing framework.
https://lawphil.net/statutes/repacts/ra2009/ra_9856_2009.html

6 REIT investor education

Philippine Stock Exchange. REIT information and FAQs on the corporate investment structure and variation in distributable income. Read current SEC issuances for amended regulatory details.
https://www.pse.com.ph/real-estate-investment-trust/

7 Current REIT rules reading

SEC Memorandum Circular No. 1, series of 2026. Official listing identifies revisions to the 2020 implementing rules of RA 9856. Full amended operational provisions are not reproduced in this lesson.
https://www.sec.gov.ph/mc-2026/sec-mc-no-01-series-of-2026/

8 National valuation standards reading

Bureau of Local Government Finance. Philippine Valuation Standards third edition 2025, online edition. Listed for continuing national-standard study; paragraph-level teaching references above were verified in the accessible IVS text.
https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

Preparation for Lesson 6

The next lesson develops appraisal mathematics and the time value of money. Keep the income definitions from this chapter beside your formula notes so that the calculations remain attached to the right property or financing question.

REALEX

Lesson 6

Appraisal Mathematics and Time Value of Money

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

A price per square metre, a rental yield and a monthly instalment describe different quantities. Each becomes useful only when its units, timing and assumptions are correct. A misplaced decimal or an incorrectly dated payment can change an answer substantially even when you remember the right formula.

Lesson 5 distinguished property income from debt payments and the investor's cash return. This lesson develops the mathematics behind those distinctions. You will convert units, draw cash-flow schedules, derive the six time-value functions and calculate a loan repayment without relying on a programmed financial solver.

The objective is to produce an answer you can explain: what the amount measures, when it applies and why the calculation fits the question. The properties, rates and transactions used here are fictional teaching examples. A mathematically correct model still needs independently supported appraisal inputs before it can inform a professional valuation.

Your learning goals

- Convert area, rental units, percentages, rates and payment periods consistently.
- Distinguish simple interest from compounding and discounting.
- Calculate present and future values of single sums and equal payments.
- Choose among the six time-value functions from the required cash-flow pattern.
- Recognize ordinary annuities, annuities due and deferred payments.
- Calculate a level loan payment and separate interest from principal.
- Check a balance using both an amortization schedule and remaining payments.
- Discount unequal property cash flows and interpret NPV and IRR cautiously.
- Use model-neutral calculator procedures and report appropriately rounded results.

Study plan: Allow four to five hours over two or three sessions. Work through sections 1–4 first, sections 5–8 next, and the cases and practice test last. Keep a calculation notebook. For each exercise, write the period rate and number of periods before entering numbers into a calculator.

1 Units percentages and mathematical control

Attach a unit to every input

Appraisal mathematics begins with quantities that mean something. Area can be recorded in square metres or hectares. Rent can be expressed per unit, per square metre, per month or per year. A percentage may describe a proportion of income, an annual rate or a change between two dates. State the unit before choosing the arithmetic.

One hectare equals 10,000 square metres. A 1.25-hectare site contains 12,500 square metres. At a teaching unit price of PHP 1,800 per square metre, the arithmetic amount is 12,500 × 1,800 = PHP 22,500,000. Multiplying 1.25 directly by the square-metre price would combine incompatible units.

The same caution applies to buildings and land. Land area, gross floor area, leasable floor area and saleable floor area are different quantities. A rental quotation per square metre of leasable area should not automatically be multiplied by gross floor area. Verify which area the quotation uses.

A simple unit-price multiplication does not account for the property rights, sale conditions or physical differences introduced in earlier lessons. It is a numerical operation on the supplied assumptions. Later valuation lessons explain how unit evidence is selected and adjusted.

Convert rent before comparing it

Suppose a shop has 120 square metres of rentable area and a quoted rent of PHP 650 per square metre per month. Monthly potential base rent is 120 × 650 = PHP 78,000. If the same rent applies throughout twelve full months, annual potential base rent is PHP 936,000.

That annual amount is before any separately stated vacancy, collection loss, taxes, service charges or expenses. A quotation that includes those items is not directly comparable with one that excludes them. Attach the income definition to the figure as well as the unit.

If another shop is quoted at PHP 900,000 per year for 100 square metres, the comparable monthly base rate is 900,000 ÷ 12 ÷ 100 = PHP 750 per square metre per month. Dividing by area alone gives an annual rate, which should not be compared with PHP 650 per month as though the time units were the same.

Annualizing a monthly quotation is different from forecasting collection for a year. A lease commencing in month four may provide only nine months of contractual payments in that calendar year. A rent-free period may reduce the cash received further. Multiply by the actual relevant payment months when the question asks for that year’s cash.

Percentages need a base

A percentage is a fraction of a defined base. Eight per cent is 8 ÷ 100 = 0.08. For multiplication, use the decimal 0.08 unless the calculator’s percentage key has a specifically understood operation. Entering 8 into a formula that expects 0.08 changes the scale one hundredfold.

If potential rent is PHP 1,200,000 and the supplied rental-loss allowance is 10% of potential rent, the deduction is PHP 120,000. If the instruction instead says 10% of effective collected rent, the relationship is different. Read the denominator before calculating the deduction.

A change from 8% to 10% is an increase of two percentage points. Relative to the original rate, it is a 25% increase: (10 − 8) ÷ 8 × 100. Neither figure establishes the percentage change in property value. The relevant valuation relationship must still be applied.

$$\text{Percentage change} = \frac{\text{New amount} - \text{Original amount}}{\text{Original amount}}$$

Multiply the ratio by 100 to express percentage change. A negative result indicates a decrease from the stated original base.

Successive changes compound

A 10% increase followed by a 10% decrease does not return an amount to its starting point. PHP 1,000 becomes PHP 1,100, then PHP 990. The second percentage applies to the changed base. The combined factor is 1.10 × 0.90 = 0.99.

Likewise, two successive 5% increases produce a factor of 1.05 × 1.05 = 1.1025, or a 10.25% total increase. Adding the two rates is an approximation that omits the effect of the second change on the first increase.

In an appraisal question, distinguish a mathematically compounded change from a supported market adjustment. A statement that construction costs increased 5% does not prove that the value of every building increased 5%. The arithmetic must be attached to the quantity the evidence actually measures.

Check dimensions and order of operations

Dimensional checking asks whether the units cancel as expected. Square metres multiplied by pesos per square metre gives pesos. Annual income divided by a dimensionless capitalization rate gives a capital amount under that model. Annual income divided by monthly debt service combines periods incorrectly.

Parentheses preserve the intended operation. The expression 1 − 1 ÷ q means one less the reciprocal of q. It does not mean (1 − 1) ÷ q. Calculate and record intermediate factors when a small display makes the expression difficult to audit.

Estimate the scale before calculating. A 1,000-square-metre lot at PHP 2,000 per square metre should be around PHP 2 million. A positive-rate present value of a single future receipt should be below that receipt. These checks do not prove correctness, but they expose many input errors quickly.

2 Dates signs and cash flow schedules

Choose the date at which the answer is required

Time value of money compares amounts at a common date. Time zero is the date selected as the starting point or valuation date in the exercise. Period one ends one complete period later. With annual periods, an amount received at the end of year three is three periods from time zero.

Present value means an equivalent amount at the selected earlier date. Future value means an equivalent amount at the selected later date. These labels are relative to the question. An amount can be present value at year two when the comparison concerns cash after year two.

Write the schedule before calculating. For an original teaching investment, the investor pays PHP 2 million today, receives PHP 150,000 at the end of year one and PHP 2.3 million at the end of year two, including disposal. The initial amount is already at time zero. Only the later amounts require discounting to that date.

Date	Investor cash flow in PHP	Treatment at time zero
0	(2,000,000)	Already at the comparison date
1	150,000	Discount one annual period
2	2,300,000	Discount two annual periods

The table is a dated schedule, not an income statement. The final cash amount may include a sale receipt that is not ordinary rent. Keeping dates and sources visible prevents accidental omission or double counting.

If a sale amount is stated net of selling costs, do not subtract those costs again. If it is gross, deduct the stated relevant costs before using the net disposal cash. A cash-flow forecast needs definitions as well as dates.

Use signs from one perspective

From the investor's perspective, money contributed is an outflow and money received is an inflow. A negative sign or parentheses identify outflows in a signed schedule. From the lender's perspective, the loan advance is an outflow and repayments are inflows. Do not mix the two perspectives within one NPV calculation.

For a simple loan-payment formula, it is convenient to use positive magnitudes: P is the loan amount and A is the repayment amount. In a full signed borrower schedule, the advance is positive and repayments are negative. These conventions are compatible once the perspective is stated.

Borrowing proceeds are cash received, but they are not rental income. Principal repayment uses cash, but it is not a property operating expense under the NOI convention in Lesson 5. The schedule must preserve that distinction even when both entries occur at the same date.

Payment dates are part of the model

A payment at the beginning of a period occurs one period earlier than the same payment at its end. At a positive discount rate, earlier receipt has a greater present value. For a payer, earlier payment also has a greater present cost.

Three payments at the ends of years one, two and three form a different schedule from three payments today and at the ends of years one and two. Both have three payments. Their number is the same, but their timing is different.

An interval between dates must use the rate convention supplied. This lesson's main examples use equally spaced complete periods. For irregular dates, actual contractual day counts or a stated fractional-period convention are required. Do not silently turn 18 months into two years because the available formula has a yearly rate.

3 Simple interest compounding and discounting

Simple interest uses the original principal

Simple interest calculates interest on the original principal throughout the stated duration. If P is principal, r is the annual simple rate and t is time in years, interest is $P \times r \times t$. The accumulated amount is $P \times (1 + r \times t)$.

For PHP 500,000 at a supplied simple rate of 6% for 18 months, t = 18 ÷ 12 = 1.5 years. Interest is 500,000 × 0.06 × 1.5 = PHP 45,000. Principal plus interest is PHP 545,000. This result uses the stated simple-interest assumption, not a monthly compounding assumption.

Where an exercise gives days, use its day-count basis. Interest for 90 days under an actual/365 assumption uses 90 ÷ 365. A 360-day assumption gives a different amount. Neither basis should be inferred solely from the number of days.

Simple interest is useful for understanding the difference between an original-principal calculation and compound accumulation. Its appearance in this lesson does not establish that every lender may use that pricing method under applicable regulations. Contract and regulatory requirements must be assessed separately.

Compound interest earns interest on accumulated amounts

Under compound accumulation, each period's balance includes the interest retained from earlier periods. Start with P. After one period at rate i, the balance is P × (1 + i). After two periods, multiply that balance by (1 + i) again. After n equal periods, the repeated multiplication becomes P × (1 + i) raised to n.

This derivation gives the single-sum future-value formula. Here i is the effective rate for one model period and n is the number of those periods. The rate and exponent must refer to the same interval.

Compound factor $q = (1 + i)^n$

Single sum future value F = P × q. The factor q is dimensionless; multiplying it by a peso amount produces pesos.

Year end	Opening balance in PHP	Interest at 10%	Closing balance in PHP
1	1,000,000.00	100,000.00	1,100,000.00
2	1,100,000.00	110,000.00	1,210,000.00
3	1,210,000.00	121,000.00	1,331,000.00

The table retains all interest in the balance. Total interest over three years is PHP 331,000. Under simple interest on the original PHP 1 million at 10% for three years, it would be PHP 300,000. The difference is the interest earned on retained earlier interest.

The compound model assumes that the supplied rate applies for every period and that the amount remains invested as described. A changing-rate forecast needs separate period factors. If the annual rates are 8%, 9% and 10%, use P × 1.08 × 1.09 × 1.10 rather than inventing a constant rate.

Discounting reverses accumulation

If F = P × q, rearrangement gives P = F ÷ q. Discounting determines the earlier amount which, under the model's rate and duration, would accumulate to the future amount. It does not remove interest by subtracting the quoted percentage from the future sum.

For PHP 1,331,000 due at the end of year three at a 10% annual discount rate, q = 1.10 raised to 3 = 1.331. Present value is 1,331,000 ÷ 1.331 = PHP 1,000,000. The forward and reverse calculations agree.

For a single amount received in one year at 10%, the discount factor is 1 ÷ 1.10 = 0.909090909. Subtracting 10% from that amount would apply 0.90 instead. Discounting uses the growth relationship's reciprocal.

With positive i and n, q exceeds one and the discount factor is below one. At zero interest, q is one, so the present and future single-sum amounts are equal. Negative-rate cases require separate interpretation and are outside the practice examples here.

Single sum present value $P = \frac{F}{q}$

Solving for time or rate

The same relationship can identify a missing rate or duration. When P and F are positive, divide F by P to obtain the accumulation factor. For a known n, i = (F ÷ P) raised to (1 ÷ n), less 1. For a known positive i, n = log(F ÷ P) ÷ log(1 + i).

If PHP 1 million becomes PHP 1.21 million in two equal annual periods, the implied annual compound rate is the square root of 1.21, less 1 = 10%. If the question gives PHP 1.331 million and a 10% rate, log(1.331) ÷ log(1.10) = three periods.

Logarithms in any consistent base give the same ratio. Use the same log function in the numerator and denominator. These formulas need positive logarithm arguments and a nonzero denominator. At i = 0, time cannot be recovered from an unchanged amount using this logarithmic expression.

The calculated rate is an implied rate of the supplied cash-flow relationship. It is not automatically a market-supported appraisal discount rate. A transaction price, risk exposure and the valuation purpose still need analysis.

4 Match rates compounding and payment periods

A nominal annual quotation is not an annual effective rate

A nominal annual rate j convertible m times a year defines a periodic rate of j ÷ m. A nominal 12% rate compounded monthly therefore has a 1% monthly rate. Over twelve monthly periods, the annual accumulation factor is 1.01 raised to 12, not 1.12.

The annual effective rate is that factor less one: approximately 12.682503%. This is the annual compound equivalent before adding any loan charges. A fee-inclusive credit effective rate must also reflect the relevant proceeds and repayments. BSP’s transparent-pricing guidance explains that distinction. [3]

In contrast, if 12% is already an annual effective rate, its equivalent monthly compound rate is 1.12 raised to (1 ÷ 12), less one, approximately 0.948879% per month. Dividing that annual effective rate by twelve does not preserve the annual factor.

Before converting, identify what the rate statement means. “Twelve per cent annually” is incomplete when a question also requires monthly compounding. If the examination problem specifies nominal convertible monthly, use its definition. If it specifies annual effective, use the root conversion.

Annual factor for a nominal rate = $(1 + j \div m)^m$

Annual effective rate = annual factor − 1. Equivalent periodic rate from an annual effective rate e = (1 + e) raised to (1 ÷ m), less 1.

Convert duration into matching periods

For a five-year model with monthly periods, n = 5 × 12 = 60. If the nominal annual rate is 12% convertible monthly, i = 0.12 ÷ 12 = 0.01. The compound factor is 1.01 raised to 60. Using 0.12 with 60 would imply 12% every month.

For ten years with annual payments and an 8% annual effective rate, i = 0.08 and n = 10. There is no monthly conversion merely because ordinary banking transactions often use monthly instalments. Follow the exercise's stated schedule.

If payments and compounding occur at different intervals, derive an effective rate for the payment interval. With a 12% nominal annual rate compounded quarterly and semiannual payments, the quarterly rate is 3%, and the effective rate for six months is 1.03 squared less 1 = 6.09%.

For quarterly payments at an annual effective rate of 8%, i = 1.08 raised to (1 ÷ 4), less 1. A three-year model then has twelve payment periods. The factor must preserve the supplied annual rate while matching the payment dates.

Rate statement	Period rate for calculation	Number of periods
8% annual effective with 10 annual payments	0.08 per year	10
12% nominal convertible monthly with 24 monthly payments	0.01 per month	24
8% annual effective with 12 quarterly payments	1.08^(1/4) − 1 per quarter	12

In the table, the caret notation ^ means "raised to the power". Write the power and its entire exponent explicitly in your notebook.

Real and nominal forecasts need consistent rates

A nominal cash-flow forecast includes expected changes in money amounts, including its inflation assumptions. A real forecast is expressed in constant purchasing-power terms. The discount rate must match that basis. IVS 103 requires consistency between the chosen cash-flow type and the rate. [4, Appendix A20.04–A20.05]

For a simplified common-inflation comparison, the exact relationship is 1 + nominal rate = (1 + real rate) × (1 + inflation rate). With a nominal rate of 10% and inflation of 4%, the implied real rate is 1.10 ÷ 1.04 − 1 = approximately 5.769231%. Subtracting 4% from 10% gives a 6% approximation.

This conversion is a teaching identity under aligned assumptions. It does not justify converting every property forecast by one headline inflation measure. Rent escalation, repair costs and market exit values may change differently. A professional model needs coherent support for each relevant assumption.

Also keep currency and tax treatment consistent. A peso forecast and a foreign-currency rate should not be paired without a supported conversion framework. The arithmetic below uses PHP and the stated tax exclusions. It does not supply an investment recommendation or a universal rate for real estate.

5 The six time value functions

Identify what is known and what is required

The six functions describe relationships among a single present amount, a single future amount and a series of equal periodic amounts. Their traditional names sometimes use “one” to mean a factor per peso. They are not six unrelated rules to memorize.

Use P for a single amount at time zero, F for a single amount at time n and A for each equal payment. Use i for the effective rate per payment period and n for the number of payments. In this section, payments occur at period ends, the rate is constant, and there are no intervening withdrawals or charges unless stated.

Set q = (1 + i) raised to n. The q notation keeps the fraction calculations manageable on a nonprogrammable calculator. Whenever q appears, calculate it using the exact i and n for that exercise. A q from a five-year annual problem cannot be reused in a monthly loan problem.

Function	Known amount	Required amount	Factor to apply
Compound amount of one	P today	F at period n	q
Present worth of one	F at period n	P today	1 ÷ q
Amount of one per period	A at each period end	F at period n	(q − 1) ÷ i
Sinking fund factor	F required at period n	A at each period end	i ÷ (q − 1)
Present worth of one per period	A at each period end	P today	(1 − 1 ÷ q) ÷ i
Capital recovery factor	P today	A at each period end	i ÷ (1 − 1 ÷ q)

Functions one and two move a single amount

The compound amount of one answers what one peso today becomes after n periods. Multiply P by q. The present worth of one answers what one peso at time n is equivalent to today. Multiply F by the reciprocal 1 ÷ q.

At 10% for three annual periods, q = 1.331 and 1 ÷ q = approximately 0.751314801. PHP 1 million today becomes PHP 1.331 million at year three. PHP 1 million due at year three has a present amount of approximately PHP 751,314.80.

Notice that those last two examples have the same numeral PHP 1 million at different dates. They do not describe the same starting cash flow. Read whether the amount supplied is present or future before multiplying or dividing.

Function three accumulates equal end payments

Consider three deposits of A at the ends of years one, two and three, measured immediately after the third deposit. The first earns two periods of interest, the second earns one, and the third earns none. Their final amount is A × [(1 + i) squared + (1 + i) + 1].

For n end deposits, the factor is the geometric sum 1 + (1 + i) + successive powers up to n − 1. Let that factor be S. Multiplying S by (1 + i), then subtracting S, leaves only the highest power less one. Thus i × S = q − 1, so S = (q − 1) ÷ i when i is nonzero.

This original derivation explains why the last deposit earns no interest in an ordinary annuity. A formula that compounds every deposit for n periods would overstate the final amount.

Future amount from equal end payments $F = \frac{A \times (q - 1)}{i}$

For A = PHP 100,000, i = 10% and n = 3, F = 100,000 × (1.331 − 1) ÷ 0.10 = PHP 331,000. Checking separately gives 121,000 + 110,000 + 100,000 = PHP 331,000.

This is an accumulation of three contributions, not the accumulation of PHP 300,000 deposited at time zero. The latter would compound the whole amount for three years and produce PHP 399,300.

Function four solves the required periodic saving

The sinking fund function reverses the previous relationship. If equal end deposits must accumulate to F, solve F = A × (q − 1) ÷ i for A. The resulting periodic contribution is F × i ÷ (q − 1).

For a target of PHP 5 million at year five and an assumed constant 8% annual effective return, q = 1.08 raised to 5 = 1.4693280768. Five equal year-end deposits must be approximately PHP 852,282.27 each. This assumes the supplied return is achieved and retained with no fees or withdrawals.

Required end deposit $A = \frac{F \times i}{q - 1}$

The five nominal contributions total about PHP 4.261 million. Accumulated interest supplies the balance to the PHP 5 million target under the assumptions. At zero interest, the required contribution would be PHP 1 million each year.

A sinking fund is a planned accumulation toward a future sum. It does not by itself establish a property's depreciation, market value or actual reserve requirement. Use the function only when the exercise supplies a target, timing and return consistent with that saving model.

Function five discounts equal end payments

The present worth of one per period gives the present amount of an ordinary annuity. One route to the formula is to accumulate the payments to time n, then discount that accumulated amount back to time zero. Using F = A × (q − 1) ÷ i and P = F ÷ q gives P = A × (1 − 1 ÷ q) ÷ i.

Another route is to discount each payment separately: A ÷ (1 + i) for period one, A ÷ (1 + i) squared for period two, and so on. The sum matches the annuity formula. This separate-payment check is useful when there are only a few amounts.

Present amount of equal end payments $P = \frac{A \times (1 - 1 \div q)}{i}$

For three year-end receipts of PHP 100,000 discounted at 10% annually, P = 100,000 × (1 − 1 ÷ 1.331) ÷ 0.10 = approximately PHP 248,685.20. Separately, the amounts are PHP 90,909.09, PHP 82,644.63 and PHP 75,131.48.

The undiscounted total is PHP 300,000. The smaller present amount reflects the delay under the positive discount rate. It does not mean that the promised nominal payments have been reduced.

Function six recovers a present amount through payments

Capital recovery reverses the present-worth annuity formula. It gives the equal end payment equivalent to P over n periods at i. Rearranging P = A × (1 − 1 ÷ q) ÷ i yields A = P × i ÷ (1 − 1 ÷ q).

For a fully amortizing level-payment loan, P is the initial principal and A covers each period's interest plus principal repayment under the specified model. The formula assumes the rate and payment interval align, the first payment is one period later, and the balance is extinguished by the final payment.

Equal end payment $A = \frac{P \times i}{1 - 1 \div q}$

With P = PHP 1 million, i = 10% and n = 3 annual payments, A is approximately PHP 402,114.80. Dividing principal by three would give only PHP 333,333.33 and would omit the required interest. Adding the same original-principal interest every year would describe a different loan structure.

The capital recovery factor can also be written as i + i ÷ (q − 1). Thus it equals the period rate plus the sinking fund factor under the same i and n. This algebraic identity does not mean that every amortizing loan actually operates a separate saving fund.

Use reciprocal relationships as checks

The single-sum factors q and 1 ÷ q are reciprocals. The accumulation-of-payments factor and sinking fund factor are reciprocals. The present-worth annuity factor and capital recovery factor are reciprocals. Multiplying a matching pair gives one, subject to numerical precision.

For example, a present-worth annuity factor of 2.486851991 at 10% for three periods has a capital recovery factor of about 0.402114804. A PHP 100,000 annual receipt gives a present amount of PHP 248,685.20; applying the matching capital recovery factor to that amount returns approximately PHP 100,000 per year.

For positive rates, the present-worth annuity factor is below n, while the accumulated-payment factor is above n when n exceeds one. Capital recovery is above 1 ÷ n. For n > 1, sinking fund contribution per target peso is below 1 ÷ n. These relationships help detect a mistaken denominator or reciprocal.

At zero interest use the limiting relationships

The annuity fractions contain division by i or by q − 1. When i = 0, direct substitution produces zero divided by zero. The underlying cash-flow relationship remains clear: there is no accumulation or discounting.

For equal payments, P = n × A and F = n × A. For a given P or F, the required A is the single amount divided by n. Use these zero-rate results instead of entering an undefined fraction into a calculator.

The main formulas assume constant nonzero rates and complete equal periods. If a question states a variable rate, unequal payments or a nonstandard schedule, break it into the actual dated cash flows rather than forcing it into a constant annuity factor.

6 Beginning payments deferred receipts and perpetuities

An annuity due starts one period earlier

An ordinary annuity has its first payment at time one. An annuity due has its first payment at time zero. For the same number and amount of payments, each due payment occurs one period earlier. Its present amount is therefore the ordinary-annuity present amount multiplied by (1 + i).

Three receipts of PHP 100,000 at times zero, one and two at 10% have P = 248,685.1991 × 1.10 = approximately PHP 273,553.72. Checking separately gives 100,000 + 90,909.09 + 82,644.63. No discount applies to the receipt today.

For a future amount measured at time n, an annuity due also multiplies the ordinary-annuity future amount by (1 + i). Three PHP 100,000 deposits at times zero, one and two amount to PHP 364,100 at time three. Each has one more earning period than its ordinary counterpart.

The date of measurement matters. Immediately after the last due deposit at time two, the balance is PHP 331,000. The PHP 364,100 amount applies at time three. Always state which date the final amount represents.

A deferred annuity has a later starting date

Suppose three equal receipts occur at the ends of years three, four and five. The ordinary-annuity formula gives a value one period before the first receipt: at year two. Discount that year-two amount for two periods to obtain time-zero value.

For three PHP 100,000 receipts and i = 10%, the year-two amount is PHP 248,685.20. Time-zero P is 248,685.1991 ÷ 1.10 squared = approximately PHP 205,524.96. Discounting for three additional periods would place the ordinary-annuity value one period too early.

The phrase “deferred for two years” can be ambiguous in casual wording. An examination problem should give actual payment dates. Resolve the dates from the facts before selecting the deferment exponent. In these examples, the first receipt at year three means the ordinary-annuity value sits at year two.

A lease may have advance rent, a rent-free period, escalation or a deposit. Model the actual payments separately. A refundable security deposit should not automatically be counted as permanent rental income; its eventual repayment and terms matter.

A perpetuity has no stated final payment

A level perpetuity consists of equal end payments continuing indefinitely at a positive constant discount rate. As n grows without bound, 1 ÷ q approaches zero, so the present-worth annuity expression approaches A ÷ i.

A perpetual PHP 900,000 annual receipt at 9%, first received one year from now, has a simple model amount of PHP 10 million. This relationship explains the mathematics behind some capitalization models. The perpetuity assumptions do not automatically describe an actual property with repairs, changing rents and finite useful components.

For a growing perpetuity with first end payment A1, constant growth g and i greater than g, the present amount is A1 ÷ (i − g). The numerator must be the next-period payment. If today’s reference income is A0, first establish A1 = A0 × (1 + g).

At i = g, the growing-perpetuity expression has a zero denominator and no finite present amount under that model. At i below g, it does not provide a valid positive finite value for a perpetually growing positive stream. A short arithmetic formula cannot cure an unsuitable growth assumption.

7 Loan payments interest principal and balances

Derive the level payment from the loan advance

A fully amortizing level-payment loan equates the loan advance to the present amount of its repayments under the assumed contractual rate and schedule. P = A × present-worth annuity factor. Solving for A gives the capital recovery formula developed above.

This establishes payment amount, not regulatory approval or affordability. Fees, grace periods, balloon balances, changing rates and irregular dates can change the actual cash flows. The examples here assume an advance at time zero, interest on opening outstanding principal, constant i, equal end payments and no separate charges.

Return to Lesson 5's PHP 6 million loan at 8% with ten annual payments. q = 1.08 raised to 10 = approximately 2.158924997. A = 6,000,000 × 0.08 ÷ (1 − 1 ÷ q) = PHP 894,176.932182 before rounding.

The reported annual payment is approximately PHP 894,176.93. It is not the monthly payment on a ten-year bank loan. A monthly loan requires its monthly effective rate and 120 monthly periods, along with its actual terms.

Build each period from the opening balance

Interest for a period is opening outstanding principal multiplied by i. Principal repaid is the total payment less that interest. Closing principal is opening principal less principal repaid. Carry the closing amount into the next period.

These relationships allow a schedule to be built using arithmetic alone. With a constant payment and positive rate, interest declines as the balance declines, while principal repayment increases. The total payment stays level under the assumptions.

Year	Opening principal	Interest	Principal repaid	Closing principal
1	6,000,000.00	480,000.00	414,176.93	5,585,823.07
2	5,585,823.07	446,865.85	447,311.09	5,138,511.98
3	5,138,511.98	411,080.96	483,095.97	4,655,416.01

Amounts are PHP. The table reports rounded figures from a schedule carried at full internal precision. Independently adding displayed figures can produce a one-cent difference.

In year one, interest is PHP 480,000, so principal repayment is 894,176.932182 − 480,000 = PHP 414,176.932182. For year two, calculate interest on the reduced balance, not on the original PHP 6 million.

Subtracting the entire payment from principal would wrongly treat interest as debt reduction. Treating the entire payment as interest would wrongly leave principal unchanged. Keep the components separate when carrying cash flow into an equity analysis.

Check the balance after a payment

Immediately after payment k, the outstanding balance equals the present amount, at that date, of the remaining n − k payments. Use the ordinary-annuity present-worth factor with the remaining number of payments and the same period rate.

An alternative retrospective check accumulates the original loan to time k, then subtracts the accumulated repayments already made. In notation, Bk = P × (1 + i) raised to k − A × [((1 + i) raised to k − 1) ÷ i]. In the second bracket, subtract one from the whole compound factor, not from its exponent.

For a PHP 1 million loan at 10% repaid by three annual payments of PHP 402,114.803625, the balance after payment two is PHP 365,558.912387. One payment remains a year later, so 402,114.803625 ÷ 1.10 gives the same balance.

Before payment three, another year's interest has accrued. The amount then required to extinguish the debt is the final payment, not the earlier post-payment-two balance. Specify "immediately after" or "immediately before" a payment when reporting a balance.

A monthly example needs monthly inputs

Take a fictional PHP 2.4 million loan at 12% nominal annual interest convertible monthly, repaid in 24 equal month-end payments with no fees. The periodic rate is 0.01 and n = 24. q = 1.01 raised to 24 = approximately 1.269734649.

The payment is 2,400,000 × 0.01 ÷ (1 − 1 ÷ q) = approximately PHP 112,976.33 per month. First-month interest is PHP 24,000. Principal repayment is approximately PHP 88,976.33, leaving about PHP 2,311,023.67 immediately after that payment.

The loan's ordinary annual scheduled payments would total twelve monthly payments where twelve fall within the year. That sum is useful for a simplified annual cash-flow check, but it is not an annual loan instalment with one annual compounding period. The within-year timing remains monthly.

Recognize balloons and incomplete amortization

A loan can use a payment calculated over a longer amortization period but mature earlier. If a PHP 1 million loan at 10% uses the three-year level payment above but matures immediately after payment two, the remaining balance of PHP 365,558.91 is an additional balloon then due under that assumption.

The normal payment-two amount and the balloon occur at the same date. Total cash required then is approximately PHP 767,673.72. Do not assume the loan is extinguished solely because its contract has reached maturity.

An interest-only loan leaves principal unchanged during its interest-only phase. Equal-principal amortization pays a fixed principal portion plus declining interest. A level-payment amortizing loan has changing principal portions. The capital recovery formula applies to the last structure under the conditions stated, not to all three.

If a payment is below period interest and unpaid interest is capitalized, the balance can increase. This is negative amortization under that model. A low payment does not necessarily mean that principal is being repaid. Actual capitalization and repayment terms require the contract and applicable rules.

Handle rounding and the final payment

Calculate with enough internal precision and round only when reporting. If a loan contract requires every cash payment to be rounded to cents, the final payment may need a small adjustment to clear the balance. A schedule carried using rounded inputs can differ from one carried at full precision.

State the convention used. This chapter's displayed schedules are rounded reports of full-precision calculations, except where an exercise expressly asks for a rounded-payment schedule. Do not repeatedly truncate balances to whole pesos before calculating the next period's interest.

For a three-year PHP 1 million loan at 10%, three displayed payments of PHP 402,114.80 total PHP 1,206,344.40. The full-precision total is PHP 1,206,344.410876. That tiny difference is rounding, not a different financing concept. Material differences usually indicate a rate, period or timing error.

8 Unequal cash flows NPV and IRR

Discount each cash flow from its own date

An annuity factor requires equal amounts at equal intervals. When receipts change, calculate the present amount of each separately and add them at the common date. A year-three receipt must be discounted three periods even if year two has no receipt.

For a fictional unfinanced property, assume net cash of PHP 900,000 at year one, PHP 990,000 at year two and PHP 1,089,000 at year three. Also assume net disposal cash of PHP 12 million at year three. Use a supplied 10% annual discount rate, and exclude investor income tax.

The year-three operating and disposal amounts share a date, so they can be added before discounting. Their combined amount is PHP 13,089,000. Do not add the disposal at time zero or omit the final year's operating cash.

Year	Net cash in PHP	Discount divisor	Present amount in PHP
1	900,000.00	1.100000	818,181.82
2	990,000.00	1.210000	818,181.82
3	13,089,000.00	1.331000	9,833,959.43
Total			11,470,323.07

The total present amount is approximately PHP 11,470,323.07. It depends on the stated forecast and rate. It does not become a market valuation merely because the discount arithmetic is correct. The relevant interest, cash-flow definitions, assumptions and rate evidence require appraisal analysis.

For a property forecast before financing, keep one owner's loan payments outside that property cash flow. For an equity forecast, include the relevant financing flows and remaining debt at exit. IVS 103 identifies cash-flow and discount-rate consistency as a requirement. [4]

NPV includes the dated initial outlay

Net present value adds all signed cash flows after discounting them to the comparison date. An immediate initial outlay is already at present value. If the preceding property forecast requires a PHP 10.5 million outlay today, NPV at the supplied 10% rate is 11,470,323.07 − 10,500,000 = PHP 970,323.07.

A positive NPV means the modeled receipts exceed the modeled outlays at that selected required return. A zero NPV means they are equivalent at that rate. A negative result means the modeled outlays exceed receipts on that basis.

The sign is conditional on the cash flows and rate. It does not guarantee realization, establish legal feasibility or rank every project correctly regardless of scale and risk. Two proposals can require different resources and have different timing even when one reports a higher percentage return.

IRR solves for a rate rather than selecting it

Internal rate of return is a rate at which the defined signed cash-flow NPV equals zero. A conventional schedule with one initial outflow followed by positive receipts can often be examined by trial rates. Calculate NPV at a lower rate and a higher rate, then narrow the interval where the sign changes.

For an outlay of PHP 1 million today and one receipt of PHP 1.21 million two years later, the IRR is 10% annually because 1,210,000 ÷ 1.10 squared equals PHP 1 million. The two-year total gain is 21%, while the annual compound rate is 10%.

For more than one receipt, there may be no simple closed-form answer. A nonprogrammable calculator can evaluate NPV at trial rates using the same discount steps. Linear interpolation can give a rough estimate between trial points, but it is not an exact solution to the generally curved NPV relationship.

Cash flows with repeated sign changes can have multiple IRRs or no useful conventional IRR. For example, −100 today, +230 at year one and −132 at year two gives zero NPV at both 10% and 20%. Reporting one as the unique project return would conceal the other root.

Use NPV at a supported required return and inspect the actual schedule when an IRR is ambiguous. An IRR calculated from a model is not a guaranteed reinvestment rate, realized outcome or market-supported appraisal discount rate.

Do not count the same benefit twice

An exit value can represent benefits occurring after the explicit forecast. If a terminal amount is calculated at year three using year-four income, the year-four amount should not also be added as an extra explicit receipt unless the terminal definition excludes it. Keep the forecast horizon and terminal basis aligned.

Similarly, include a capital outlay only once. If net disposal cash already deducts a specified selling expense, do not repeat that expense. If an equity exit receipt already deducts outstanding principal, do not subtract that principal again below the schedule.

Detailed income and development valuation methods belong to later lessons. At this stage, learn to identify the date and scope of every component. Clear schedules are the foundation for those more advanced models.

9 Calculator procedures and answer checking

Verify the exact model under the applicable rules

PRC’s advisory dated 18 September 2026 states that only expressly listed calculator models are permitted where calculator use is allowed. Similar features or a related model name do not automatically establish approval. It also recognizes applicable board-specific lists and limits examinees to one allowed calculator. [2]

For the intended 2027 examination, check the final examination program and current applicable calculator issuance. This lesson does not certify a particular model as allowed for 2027. Its procedures use arithmetic and, where available and permitted on the exact model, power, reciprocal and logarithm functions.

Practice on the unit you intend to bring after verifying its eligibility. Learn how it handles parentheses, the sign-change key, exponent entry and memory. A percentage key can operate differently from a typed decimal rate, so the procedures below use decimal rates explicitly.

Calculate a single sum without a financial solver

For PHP 1 million accumulated at 10% over three years, enter 1 + 0.10 to obtain 1.10. Raise the whole 1.10 to 3, obtaining 1.331. Multiply by 1,000,000. Record F = PHP 1,331,000 at year three.

If an allowed unit lacks a convenient power function, multiply 1.10 × 1.10 × 1.10 for this small integer exponent. Verify the repeated-multiplication behavior of your calculator before relying on it. Do not assume the equals key repeats the same operation on every model.

For discounting PHP 1 million from year three, calculate the same q = 1.331. Then enter 1,000,000 ÷ 1.331. Record P ≈ PHP 751,314.80 at time zero. If q is kept in memory, confirm that the memory contains the factor rather than a previous peso result.

Use one factor to compute a loan payment

For the PHP 6 million loan at 8% over ten annual periods, write P = 6,000,000, i = 0.08 and n = 10. Calculate q = 1.08 raised to 10 and retain approximately 2.158924997 or the full stored result.

Take the reciprocal 1 ÷ q, approximately 0.463193488. Subtract that reciprocal from 1 to obtain approximately 0.536806512. Separately calculate P × i = 480,000. Divide 480,000 by the retained denominator to obtain approximately PHP 894,176.93.

This two-part procedure avoids a long nested input. Write each intermediate result with its label: q, reciprocal and denominator. If you accidentally divide by the reciprocal instead of one less the reciprocal, the payment will be materially different.

Check year-one interest at PHP 480,000. The calculated payment should exceed that interest and the principal-only amount of PHP 600,000 for ten annual repayments. It should also produce a positive principal reduction. These checks are consistent with this fully amortizing positive-rate model.

Keep precision through small differences

Expressions such as 1 − 1 ÷ q subtract numbers that can be close together when i or n is small. Excessive early rounding can distort the factor. Retain the calculator's available precision and round the final currency amount to the requested unit.

If an answer is required to the nearest peso, PHP 894,176.932 becomes PHP 894,177. If cents are requested, it becomes PHP 894,176.93. The underlying calculation is the same. A table value rounded to four decimal places may produce a slightly different result; identify whether the question directs use of that table.

Do not invent precision in the appraisal conclusion. A teaching loan calculation can report cents to demonstrate mechanics. A market value based on uncertain evidence may warrant a different reporting precision. Computational precision and confidence in the appraisal inputs are separate matters.

A repeatable examination method

- Identify the required amount and its date before choosing a formula.
- Write the known amounts with units and the cash-flow perspective.
- Convert the rate and duration into matching periods.
- Choose a single sum, equal-payment or individual-cash-flow method.
- Calculate the factor with enough precision, then calculate the money amount.
- Check scale, timing, sign and the relevant inverse relationship.
- Round as instructed and attach the unit and date to the answer.

10 Ten worked cases

Attempt each case before reading its solution. Keep the time schedule in your notebook. Rates and amounts are supplied assumptions, and all cash amounts are PHP unless stated otherwise.

Case 1 Convert land area and unit price

Question: A fictional site has an area of 0.85 hectare. Use a supplied unit amount of PHP 2,400 per square metre. Calculate the arithmetic total and explain what the result does not establish.

Solution: Area = 0.85 × 10,000 = 8,500 square metres. Total = 8,500 × 2,400 = PHP 20,400,000.

Reasoning: The area and price units now match. The calculation applies the supplied rate; it does not independently establish market value, title status or suitability of the unit evidence.

Case 2 Distinguish simple and compound interest

Question: Compare the amount of PHP 500,000 after two years at 8% under simple annual interest and annual compounding. Interest remains invested in the compound case.

Solution: Simple amount = 500,000 × (1 + 0.08 × 2) = PHP 580,000. Compound amount = 500,000 × 1.08 squared = PHP 583,200. Difference = PHP 3,200.

Reasoning: The second year’s compound interest applies to PHP 540,000 rather than PHP 500,000. The difference is interest on the first year’s retained PHP 40,000.

Case 3 Discount a delayed single receipt

Question: A buyer will pay PHP 2,662,000 at the end of year three. Calculate its present amount at a supplied 10% annual discount rate, with no other receipts or deductions.

Solution: q = 1.10 raised to 3 = 1.331. P = 2,662,000 ÷ 1.331 = PHP 2,000,000.

Reasoning: The positive-rate present amount is below the future receipt. Multiplying PHP 2 million by 1.331 returns the future amount, which checks the calculation.

Case 4 Convert a monthly compound quotation

Question: PHP 1 million is accumulated for two years at 12% nominal annual interest convertible monthly. Calculate the periodic rate, n, future amount and annual effective rate before fees.

Solution: i = 0.12 ÷ 12 = 0.01 per month; n = 24. F = 1,000,000 × 1.01 raised to 24 = approximately PHP 1,269,734.65. Annual effective rate = 1.01 raised to 12 − 1 = approximately 12.682503%.

Reasoning: Annual nominal and annual effective rates describe different relationships. Using 12% as the monthly rate would be a period error. Loan fees are not included in this pure accumulation calculation.

Case 5 Accumulate a repair reserve

Question: A teaching reserve receives PHP 200,000 at each of five year ends and earns a constant 8% annual effective return. What is the balance immediately after deposit five?

Solution: q = 1.08 raised to 5 = 1.4693280768. F = 200,000 × (q − 1) ÷ 0.08 = PHP 1,173,320.192, or approximately PHP 1,173,320.19.

Reasoning: The first deposit earns four years of interest and the fifth earns none before the measurement date. The total contributions are PHP 1 million; the remainder is modeled accumulation.

Case 6 Solve the saving required for a target

Question: Use the same five-year, 8% model but require PHP 5 million immediately after the fifth year-end deposit. What equal annual deposit is needed?

Solution: A = 5,000,000 × 0.08 ÷ (1.4693280768 − 1) = PHP 852,282.272834, or approximately PHP 852,282.27 per year.

Reasoning: This uses the sinking fund factor. Applying the accumulation factor to the required future target would answer a different question. Fees, withdrawals and changing returns would require a revised schedule.

Case 7 Compare payment dates

Question: Calculate the present amount of three PHP 100,000 receipts at 10% if they occur at (a) years one, two and three; (b) years zero, one and two; and (c) years three, four and five.

Solution: Ordinary annuity P = 100,000 × (1 − 1 ÷ 1.331) ÷ 0.10 = PHP 248,685.20. Due P = the full-precision ordinary amount × 1.10 = PHP 273,553.72. Deferred P = the ordinary amount ÷ 1.10 squared = PHP 205,524.96.

Reasoning: The same three nominal receipts have different present amounts because of timing. The deferred ordinary-annuity value is first calculated at year two, one period before its first receipt.

Case 8 Build a complete short amortization schedule

Question: A PHP 1 million loan at 10% is repaid by three equal year-end payments. Calculate the payment and the balance immediately after each payment, using full internal precision.

Solution: A = 1,000,000 × 0.10 ÷ (1 − 1 ÷ 1.331) = PHP 402,114.803625. The schedule below separates interest and principal.

Year	Opening principal	Interest	Principal repaid	Closing principal
1	1,000,000.00	100,000.00	302,114.80	697,885.20
2	697,885.20	69,788.52	332,326.28	365,558.91
3	365,558.91	36,555.89	365,558.91	0.00

Reasoning: Figures are PHP and are displayed to cents from full-precision calculations. Interest declines as principal declines. After payment two, the remaining balance also equals 402,114.803625 ÷ 1.10.

Case 9 Test a balloon at earlier maturity

Question: Keep Case 8's payment and interest model, but assume contractual maturity immediately after the second normal payment. Calculate the additional balloon and total cash required at that date.

Solution: The additional principal balance is approximately PHP 365,558.91. Total payment-two cash including the normal payment is 402,114.803625 + 365,558.912387 = approximately PHP 767,673.72.

Reasoning: The amortization period used to calculate the payment is three years, but maturity is two years. The remaining balance is not automatically forgiven or refinanced.

Case 10 Discount unequal receipts and interpret NPV

Question: An investment requires PHP 3 million today and produces PHP 1 million at year one, PHP 1 million at year two and PHP 2 million at year three, including disposal. At 10% annually, calculate NPV. Ignore tax and fees and assume there are no other cash flows.

Solution: Present receipts = 1,000,000 ÷ 1.10 + 1,000,000 ÷ 1.21 + 2,000,000 ÷ 1.331 = PHP 3,238,166.79. NPV = 3,238,166.79 − 3,000,000 = PHP 238,166.79.

Reasoning: The unequal receipts require their own dated calculations. The positive modeled NPV reflects the supplied 10% return requirement and cash flows; it does not guarantee the outcome.

11 Calculation worksheet

Use a separate sheet for full workings. Report currency answers to cents, carry sufficient internal precision and state the date of each amount. These exercises are independently authored teaching problems.

1. A 0.72-hectare site is evaluated using a supplied PHP 1,500 per square metre amount. Convert its area and calculate the arithmetic total.

Your response: _____

2. A 150-square-metre shop is quoted at PHP 600 per square metre per month. Calculate its full-year potential base rent and the cash for nine paid months, assuming no other deductions.

Your response: _____

3. PHP 800,000 today accumulates at 10% annually for three years. Calculate F, then reverse the calculation to recover P.

Your response: _____

4. Three PHP 120,000 receipts occur at years one, two and three. At 10%, calculate their present amount. Recalculate if the receipts move to years zero, one and two.

Your response: _____

5. A PHP 2 million target is required immediately after the third equal year-end deposit. Use a 10% annual effective return and calculate A.

Your response: _____

6. A PHP 2 million loan at 10% is repaid by three equal year-end payments. Calculate A and the first two rows of interest, principal repayment and closing balance.

Your response: _____

7. Using exercise 6, assume maturity immediately after payment two. Calculate the additional balloon and the total cash then required.

Your response: _____

8. Pay PHP 4 million today and receive PHP 1.5 million at each of years one and two, plus PHP 2 million at year three. At 10%, calculate NPV and explain the result in two sentences.

Your response: _____

12 Formula review and common errors

Use this page after studying the derivations. All annuity factors below assume equal end payments, constant i and n complete periods. Define q = (1 + i) raised to n before using any row.

Required result	Formula	Meaning
Future single sum	F = P × q	Move one amount forward n periods
Present single sum	P = F ÷ q	Move one amount back n periods
Future annuity	F = A × (q − 1) ÷ i	Accumulate equal end payments
Sinking fund deposit	A = F × i ÷ (q − 1)	Save toward a single future target
Present annuity	P = A × (1 − 1 ÷ q) ÷ i	Discount equal end payments
Capital recovery payment	A = P × i ÷ (1 − 1 ÷ q)	Recover principal plus modeled interest

Common error	Correct reasoning
Using hectares with a square-metre rate	Convert the area before multiplication.
Using a monthly rate with annual n	Use matching periods for rate, dates and exponent.
Dividing an annual effective rate by twelve	Use the twelfth-root conversion for equivalent monthly compounding.
Discounting the time-zero outlay	An amount at the comparison date needs no further discount.
Giving every deposit n earning periods	Each deposit earns only from its date to the final date.
Treating an annuity due as an ordinary annuity	Move each payment one period earlier and adjust the factor.
Discounting a year-three first annuity by three extra periods	The ordinary-annuity value sits at year two; discount from there.
Subtracting the whole payment from principal	Subtract only payment less interest.
Using capital recovery for an interest-only loan	Interest-only leaves principal for later repayment.
Rounding every factor too early	Retain precision through the factor and balance calculations.

At i = 0, use P = F for a single sum, P = F = n × A for an equal-payment series, and A = the target amount ÷ n for repayment or saving. Do not enter zero divided by zero into an annuity fraction.

13 Original practice test

Choose one best answer. Suggested time: 40 minutes. All 20 items are original learning exercises, not actual or recalled PRC questions. Use the stated assumptions; approximate currency options are rounded as shown.

1. A site has 1.20 hectares. A supplied unit amount is PHP 2,500 per square metre. What is the arithmetic total?

A. PHP 3,000

B. PHP 30,000,000

C. PHP 3,000,000

D. PHP 300,000,000

2. A rent of PHP 700 per square metre per month applies to 80 square metres for twelve paid months. What is annual potential base rent?

A. PHP 840,000

B. PHP 56,000

C. PHP 67,200

D. PHP 672,000

3. An amount rises 10% and then falls 10%. What is the combined change from its original base?

A. A 1% decrease

B. A 1% increase

C. A 10% decrease

D. No change

4. PHP 500,000 earns simple interest at 6% per year for 18 months. What is principal plus interest?

A. PHP 530,000

B. PHP 590,000

C. PHP 545,000

D. PHP 547,000

5. PHP 1 million accumulates at 10% annually for three complete years. What is its future amount?

A. PHP 1,331,000

B. PHP 1,210,000

C. PHP 1,300,000

D. PHP 751,315

6. PHP 1,210,000 is due at the end of year two. At a 10% annual discount rate, what is its present amount?

A. PHP 980,100

B. PHP 1,000,000

C. PHP 1,100,000

D. PHP 1,464,100

7. Which inputs match a 12% nominal annual rate convertible monthly over two years?

A. i = 0.12 and n = 24

B. i = 0.01 and n = 2

C. i = 0.12 and n = 2

D. i = 0.01 and n = 24

8. What is the annual effective rate of 12% nominal annual interest convertible monthly, before fees?

A. 12.00%

B. 1.00%

C. Approximately 12.68%

D. Approximately 14.40%

9. A rate is already stated as 12% annual effective. Which gives its equivalent monthly compound rate?

A. 0.12 ÷ 12

B. 1.12 raised to (1 ÷ 12), less 1

C. 1.12 raised to 12, less 1

D. 0.12 × 12

10. Three PHP 100,000 deposits occur at the ends of years one, two and three. At 10%, what is the balance immediately after deposit three?

A. PHP 331,000

B. PHP 399,300

C. PHP 300,000

D. PHP 364,100

11. Which function determines equal year-end deposits required to reach a specified future target?

A. Present worth of one

B. Capital recovery

C. Sinking fund factor

D. Compound amount of one

12. At 10%, what is the present amount of three PHP 100,000 receipts at years one, two and three?

A. PHP 300,000.00

B. Approximately PHP 331,000.00

C. Approximately PHP 273,553.72

D. Approximately PHP 248,685.20

13. If Question 12's receipts move to years zero, one and two, how is its full-precision present amount adjusted?

A. Divide by 1.10

B. Multiply by 1.10 squared

C. No adjustment

D. Multiply by 1.10

14. Three equal receipts occur at years three, four and five. At which date does the three-period ordinary-annuity present-worth formula first place their value?

A. Year zero

B. Year two

C. Year three

D. Year five

15. A PHP 1 million loan at 10% is repaid by three equal year-end payments. What is the approximate payment?

A. PHP 402,114.80

B. PHP 433,333.33

C. PHP 100,000.00

D. PHP 333,333.33

16. Using Question 15, what is first-year principal repayment, approximately?

A. PHP 402,114.80

B. PHP 100,000.00

C. PHP 302,114.80

D. PHP 697,885.20

17. Immediately after payment two in Question 15, only one normal payment remains a year later. Which gives the outstanding balance?

A. The final payment divided by 1.10

B. The final payment multiplied by 1.10

C. Original principal less two whole payments

D. Zero because two payments have occurred

18. For three equal payments at a zero interest rate, which relationship is valid?

A. The cash flows cannot be valued

B. $P = A \div 3$

C. $P = 0$

D. $P = 3 \times A$

19. Pay PHP 1 million today and receive PHP 1.21 million at year two, with no other cash flows. What is the annual compound IRR?

A. 21%

B. 20%

C. 10%

D. 10.5%

20. Which statement about a positive modeled NPV at a supplied discount rate is best?

A. It guarantees the investor will earn that rate

B. It means modeled present inflows exceed modeled present outflows at that rate

C. It proves the discount rate is market-supported

D. It means debt principal can be omitted from an equity exit

14 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	C
2	D	12	D
3	A	13	D
4	C	14	B
5	A	15	A
6	B	16	C
7	D	17	A
8	C	18	D
9	B	19	C
10	A	20	B

1. B Area is 12,000 square metres. Multiply by PHP 2,500 to obtain PHP 30 million. The supplied unit amount still needs appraisal support.

2. D Monthly rent is 700 × 80 = PHP 56,000. Twelve months gives PHP 672,000 before any separately stated deductions.

3. A The combined factor is 1.10 × 0.90 = 0.99. The ending amount is 99% of the original.

4. C Time is 1.5 years. Interest is 500,000 × 0.06 × 1.5 = PHP 45,000, giving PHP 545,000.

5. A Compound factor is 1.10 raised to 3 = 1.331. Multiply the present amount by the factor.

6. B Discount by 1.10 squared = 1.21. Dividing PHP 1,210,000 by 1.21 gives PHP 1 million.

7. D The monthly rate is 0.12 ÷ 12 = 0.01 and two years contains 24 monthly periods.

8. C Annual factor is 1.01 raised to 12. Subtract one and express as a percentage. A credit effective rate additionally depends on relevant cash flows and charges.

9. B The monthly factor raised to twelve must equal the annual factor 1.12. Use its twelfth root, then subtract one.

10. A The deposits accumulate for two, one and zero periods. Their final amounts are 121,000, 110,000 and 100,000.

11. C The sinking fund function solves A from a target F. Capital recovery instead solves a payment from a present amount P.

12. D Use the ordinary-annuity present-worth factor: 100,000 × (1 − 1 ÷ 1.331) ÷ 0.10.

13. D Each receipt moves one period earlier. The annuity-due present amount is the ordinary amount multiplied by 1 + i.

14. B An ordinary-annuity value sits one period before its first receipt. Discount the year-two value two periods to time zero.

15. A Capital recovery gives 1,000,000 × 0.10 ÷ (1 − 1 ÷ 1.331) ≈ PHP 402,114.80.

16. C First-year interest is PHP 100,000. Principal repayment is the payment less interest, approximately PHP 302,114.80.

17. A The post-payment balance equals the present amount at that date of the one remaining repayment. It is about PHP 365,558.91.

18. D With no accumulation or discounting, three equal payments sum to 3A. Avoid direct substitution into a zero-over-zero annuity fraction.

19. C The ratio is 1.21. Its square root is 1.10, so annual compound IRR is 10%. The two-year total gain is 21%.

20. B The NPV result is conditional on its schedule and rate. It cannot independently establish forecast realization, rate support or financing completeness.

Calculation worksheet solutions

1. Area = 0.72 × 10,000 = 7,200 square metres. Total = 7,200 × 1,500 = PHP 10,800,000. This is application of a supplied unit amount.

2. Monthly potential rent = 150 × 600 = PHP 90,000. Twelve paid months gives PHP 1,080,000. Nine paid months gives PHP 810,000. Actual collection assumptions must follow the exercise rather than automatic annualization.

3. q = 1.10 raised to 3 = 1.331. F = 800,000 × 1.331 = PHP 1,064,800 at year three. Reverse: P = 1,064,800 ÷ 1.331 = PHP 800,000 today.

4. Ordinary P = 120,000 × (1 − 1 ÷ 1.331) ÷ 0.10 = PHP 298,422.24 at time zero. Due P = the full-precision ordinary amount × 1.10 = PHP 328,264.46. Earlier receipts have the greater present amount at a positive rate.

5. A = 2,000,000 × 0.10 ÷ (1.331 − 1) = PHP 604,229.61 at each of three year ends. A check multiplies that full-precision deposit by the accumulation factor 3.31, recovering the PHP 2 million target.

6. A = 2,000,000 × 0.10 ÷ (1 − 1 ÷ 1.331) = PHP 804,229.61. Year one: interest PHP 200,000.00; principal repaid PHP 604,229.61; closing balance PHP 1,395,770.39. Year two: interest PHP 139,577.04; principal repaid PHP 664,652.57; closing balance PHP 731,117.82. Values are rounded reports from full internal precision.

7. The additional balloon immediately after payment two is PHP 731,117.82. Total cash then required is the full-precision normal payment plus remaining balance, approximately PHP 1,535,347.43. Both occur at the year-two date.

8. Present receipts = 1,500,000 ÷ 1.10 + 1,500,000 ÷ 1.21 + 2,000,000 ÷ 1.331 = PHP 4,105,935.39. NPV = PHP 105,935.39. The positive result means modeled present receipts exceed the immediate outlay at 10%; it remains conditional on the supplied forecast and rate.

Use calculation errors to guide revision

Classify an error by its cause: units, rate conversion, dates, cash-flow pattern, factor, arithmetic or interpretation. Redo the same problem after correcting that cause, then try a new example with different numbers. Repeating a memorized answer does not demonstrate that you can choose the right function.

Before beginning Lesson 7, you should be able to convert a unit quotation, construct a dated cash-flow schedule and explain why a loan payment contains both interest and principal. Lesson 7 develops statistics and comparable evidence, where the same discipline about definitions and units remains essential.

15 Sources and examination preparation status

The PRC's published August 2024 examination program includes practical appraisal mathematics and real estate finance and economics. Those verified coverage headings support the subject selection here. The chapter sequence, worked cases, formulas selected for instruction and 20-question test are editorial curriculum choices, not official PRC subtopic weights. [1]

This lesson supports preparation for an intended 2027 examination. The final 2027 program, examination instructions and calculator permissions require verification against PRC issuances when published. No particular calculator model is certified by this lesson for 2027. The September 2026 advisory is a current preparation reference, not a substitute for the examination-specific program. [2]

All explanations, numerical examples, cases and questions in this lesson are newly authored. Standard mathematical relationships are derived in the text. The reading list identifies independently checked conceptual foundations; it is not a reproduction of a publisher's lesson sequence or question bank.

For Philippine professional work, use the applicable Philippine Valuation Standards and legal framework. The precise cash-flow consistency references checked here are in the accessible IVS 2025 text. The PVS third edition is listed as the national-standard reading reference, not as a claim that its full text was independently reviewed for this chapter. [4, 8]

1 PRC examination coverage

Professional Regulatory Board of Real Estate Service. Program of the Real Estate Appraisers Licensure Examination on August 8 2024 in NCR, page 1. Practical appraisal mathematics and real estate finance and economics.

https://www.prc.gov.ph/sites/default/files/exam%20program%20appraiser%20august%202024%20%28rev%29.pdf

2 Calculator preparation rules

Professional Regulation Commission. Public Advisory on the List of Allowable Calculators during Licensure Examinations, posted 18 September 2026. Refers to Commission Resolution No. 1809 series of 2024 and applicable board-specific lists.

https://www.prc.gov.ph/article/public-advisory-list-allowable-calculators-during-licensure-examinations

3 Effective interest concepts

Bangko Sentral ng Pilipinas. FAQs on Circular No. 730, Version 2, questions 4–6. Effective rates relate relevant proceeds, repayments and charges; the pure nominal-to-effective conversion alone is not a complete loan-pricing analysis.

https://www.bsp.gov.ph/Regulations/FAQ/FAQ_TNT.pdf

4 Valuation cash flow consistency

International Valuation Standards Council. IVS effective 31 January 2025, IVS 103 Appendix A20.04–A20.05. Standards text hosted by SAICA.

https://saicawebprstorage.blob.core.windows.net/uploads/resources/IVS-effective-31-January-2025.pdf

5 Single amount mathematics

Dahlquist and Knight. Principles of Finance second edition, OpenStax, section 7.2 Time Value of Money Basics. Used to check the general compound single-sum relationship.

https://openstax.org/books/principles-finance-2e/pages/7-2-time-value-of-money-tvm-basics

6 Equal payment mathematics

Dahlquist and Knight. Principles of Finance second edition, OpenStax, section 8.2 Annuities. Used to check ordinary and beginning-payment factor relationships. The derivations and Philippine examples here are original.

https://openstax.org/books/principles-finance-2e/pages/8-2-annuities

7 Loan amortization mathematics

Dahlquist and Knight. Principles of Finance second edition, OpenStax, section 8.3 Loan Amortization. Used to check period matching and the payment and principal relationships.

https://openstax.org/books/principles-finance-2e/pages/8-3-loan-amortization

8 National valuation standards reading

Bureau of Local Government Finance. Philippine Valuation Standards third edition 2025, online edition. Consult the national standards and relevant issuances for professional application.

https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

REALEX

Lesson 7

Statistics and Comparable Evidence

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

Eight sale records can produce a correct average and still provide a poor indication for the subject property. One sale may involve a different permitted use. Several advertisements may describe the same property. The prices may use different area definitions or transaction dates. Statistics help an appraiser examine evidence, but the calculations must answer the right property question.

This lesson develops the statistical skills needed to summarize comparable information and judge its limitations. You will calculate central tendency, spread and weighted estimates, investigate unusual records and interpret a simple regression without treating association as causation.

You will use a newly constructed Philippine-style land-sale dataset and a separate apartment dataset. Every sale, verification detail, property characteristic and numerical result is fictional teaching material. None represents a real transaction, official price schedule or current market quotation. The examples demonstrate reasoning that can later be applied to independently verified evidence.

Your learning goals

- Define the subject market, observation, population and sample before calculating.
- Distinguish completed transactions from asking prices and repeated advertisements.
- Calculate mean, median, mode and a weighted mean with consistent units.
- Interpret range, quartiles, variance, standard deviation and relative spread.
- Use an outlier flag to direct investigation rather than automatically delete evidence.
- Recognize selection bias, duplicated records and missing market segments.
- Calculate a simple least-squares line and read its slope, residuals and fit.
- Distinguish sample spread, uncertainty in a mean and uncertainty for a single property.
- Explain which evidence supports a conclusion and which limitations remain.

Study plan: Allow four to five hours in two or three sessions. Read sections 1–4 before calculating the dataset summaries. Study spread and regression next, then complete the ten cases, evidence worksheet and 20-question practice test. Lesson 6 supplies the unit and calculation discipline used throughout.

1 Define the evidence question

Start with the property interest and valuation date

A comparable is useful because its evidence relates to the interest being valued, the market participants and the relevant date. Geographic proximity alone does not establish comparability. A leased warehouse and a vacant residential lot can be adjacent yet answer very different valuation questions.

Write a short subject description before assembling a dataset. For an educational residential-lot exercise, it might specify an ownership interest in a vacant serviced lot, residential use, ordinary internal-road access, approximately 300 square metres and a given valuation date. That description directs the search and identifies potential differences.

Keep the distinction between a price and an appraised value from Lesson 2. A sale price is an observation of a transaction under its circumstances. A statistical summary of recorded prices describes those observations. It does not automatically establish the market value of the subject.

The assignment also determines the unit of analysis. A market study may investigate absorption of units. A land comparison may use transaction price per square metre. A rental inquiry may use net rent per square metre per month. Decide what each row represents and what each number measures.

An observation is not necessarily an independent transaction

One observation may be a property transaction, an advertised listing or a measured property attribute. Define it consistently. Four screenshots from four websites can describe one property being offered by several agents. Counting them as four sales exaggerates the evidence.

A transaction may also involve several parcels sold as one package. Dividing the package price among parcels requires a supported allocation, not an assumption that each parcel sold independently. The parcel count and transaction count answer different questions.

For the synthetic datasets in this lesson, each identified row is assumed to be a distinct transaction. In a professional inquiry, that distinctness must be checked. Use property identity, date, parties, parcel references and transaction circumstances to detect repeated records.

Repeated sales of the same property at different dates can provide useful information, but they are not interchangeable with independent sales of different properties at one date. The analysis must recognize the repeated property and changing conditions.

Distinguish population sample and available evidence

A population is the complete group about which an inquiry is made under a definition. For example, it might be all qualifying residential-lot transactions within a defined locality and period. A sample is a subset of that group.

The eight teaching records later in this lesson are the complete fictional file for our exercise, but they are not a census of a real market. When we calculate sample standard deviation, we explicitly use the sample convention. If a problem instead defines its numbers as the complete finite population, use its population formula.

Available records are often a convenience sample: transactions found through accessible sources rather than a probability sample in which selection is controlled. A convenience sample can still inform an appraisal, but it does not automatically support statistical inference about every transaction in the market.

More records can improve an inquiry when they add relevant information. More advertisements for the same properties, or more sales from a different market, do not necessarily improve it. Consider coverage, verification and dependence as well as count.

Use numerical and descriptive fields together

Quantitative fields include area, price, rent, age and travel time. Categorical fields include property use, tenure category, access type and transaction status. Descriptive fields can explain numerical differences that an average conceals.

An arbitrary code does not create a meaningful numerical distance. If residential use is coded 1 and commercial use 2, the average of those codes is not a market quantity. In more advanced modeling, categories need an appropriate representation and interpretation.

Dates also need a definition. The advertisement date, contract date, completion date and payment date can differ. Choose the date relevant to the analysis and record any uncertainty. A date copied from an online upload should not silently become the sale date.

Measure the relevant area consistently. A condominium's advertised area may include a balcony or parking interest. A building record may use gross floor area while another uses leasable area. Statistical comparability begins with these definitions.

2 Verify and organize comparable records

Separate the recorded fact from the appraisal input

A source may provide a stated sale price and area. The appraiser then checks their meaning, considers the transaction circumstances and decides how the evidence may be used. The eventual input can include a supported adjustment or an exclusion from a particular analysis.

IVS 104 addresses the relevance and selection of data and the documentation of significant inputs. IVS 400 identifies a hierarchy of comparable evidence for real property interests. These requirements support an inquiry into what each record actually represents rather than a calculation on unexamined numbers. [2, IVS 104 sections 30–50; IVS 400 section 100]

For this lesson, verification is illustrated through fictional facts supplied by the exercise. Do not interpret those facts as a claim that real documents were obtained. In practice, record the source, verification work, unresolved issues and the reasons for using the input.

Do not treat an asking price as a completed sale

An asking price shows what a seller seeks under an offer. A completed transaction records an agreement under actual terms. Both can inform a market inquiry, but they are different kinds of evidence.

Suppose a listing asks PHP 3.2 million and a later independently verified transaction is PHP 2.9 million. The listing and sale are two stages of the same property's history. They are not two independent completed sales, and a market-wide 9.375% discount cannot be inferred from that one pair alone.

Offers, reservations and cancelled contracts also require separate classification. A reservation payment does not necessarily establish the final price or completion. A developer's published schedule may include promotional financing that differs from a cash transaction.

Keep listings in a separate field or analysis where useful. If a model combines listing and completed-sale evidence, explain the method and limitations. Relabeling listings as sales cannot be justified by the convenience of having more rows.

Check transaction circumstances

Investigate whether the recorded consideration includes items outside the property interest being studied. Movable equipment, business goodwill, prepaid services or several properties can be bundled into one amount. A simple price divided by area may then be misleading.

Payment terms can matter as well. An unusually long credit period or subsidized financing can affect the price compared with an ordinary cash-equivalent transaction. Lesson 6 supplies the mechanics for dated cash flows, but a financial adjustment still needs verified terms and a supported rate.

Also examine relationships and motivations. A transfer between related parties, a compelled disposal or a transaction tied to another agreement may have special circumstances. Such a record can be informative without being directly comparable to an ordinary market transaction.

Do not assume that every low price is distressed or that every high price is fraudulent. Those are explanations to investigate through evidence. Record uncertainty when the terms cannot be verified, and assess its effect on the intended use.

Preserve the original record when cleaning data

Cleaning should create an intelligible analysis file while retaining the original information. Correct a verified transcription error, remove duplicate counting and standardize units. Record what changed and why.

If a listed area of 3,000 square metres is later verified as 300, update the analytical field and preserve the source and correction. If the evidence remains conflicting, mark the issue unresolved. Replacing a suspicious number with the sample average would hide uncertainty rather than resolve it.

Separate missing from zero. An unknown rent is not PHP 0 rent. A blank building age is not a new building. Coding missing values as zero can distort means, correlations and fitted relationships.

An excluded sale should remain traceable in the evidence file with its reason. It may be useful in another market segment or a sensitivity analysis. Removing it from the calculation does not require erasing it from the record.

Record field	What to capture
Identity	Distinct property and transaction reference; duplicate links
Status and date	Listing, agreement or completed transaction; relevant date
Interest and use	Right transferred, occupancy and permitted use
Amount and terms	Consideration, included items and payment terms
Physical measures	Area definition, access and material condition differences
Verification	Source, checks, unresolved issues and reliability
Analytical treatment	Unit conversion, adjustment, inclusion or exclusion with reasons

3 Original land sale dataset

Read the fictional assumptions before calculating

The subject for this teaching inquiry is a vacant residential lot of approximately 300 square metres in a fictional serviced locality. All eight records are distinct completed ownership transactions within the same teaching quarter. Their supplied prices are assumed to be cash-equivalent land consideration with no buildings or other assets included.

Lots A to G have residential use, ordinary road access and broadly similar service provision. Their areas differ. Lot H is a commercially permitted corner lot with a different access and use profile. This characteristic is supplied as a verified fictional fact, not inferred from its high price.

No time, size, access or location adjustments have yet been applied. The raw summaries will describe the file. A later decision to analyze A to G as a residential group must still recognize their remaining differences. Similar service provision does not make them physically identical.

ID	Area in sqm	Price in PHP	Price per sqm	Teaching market category
A	200	2,000,000	10,000	Residential
B	250	2,450,000	9,800	Residential
C	300	2,850,000	9,500	Residential
D	350	3,220,000	9,200	Residential
E	400	3,600,000	9,000	Residential
F	450	3,960,000	8,800	Residential
G	220	2,222,000	10,100	Residential
H	240	3,600,000	15,000	Commercial corner

For every row, unit price equals total price divided by the specified land area. For C, 2,850,000 ÷ 300 = PHP 9,500 per square metre. For H, 3,600,000 ÷ 240 = PHP 15,000 per square metre.

The records are deliberately arranged to reveal a statistical and appraisal distinction. H is numerically unusual, but its use and access already differ from the residential subject. A numerical outlier flag can direct attention to H; the use distinction supplies a separate reason to assess its relevance.

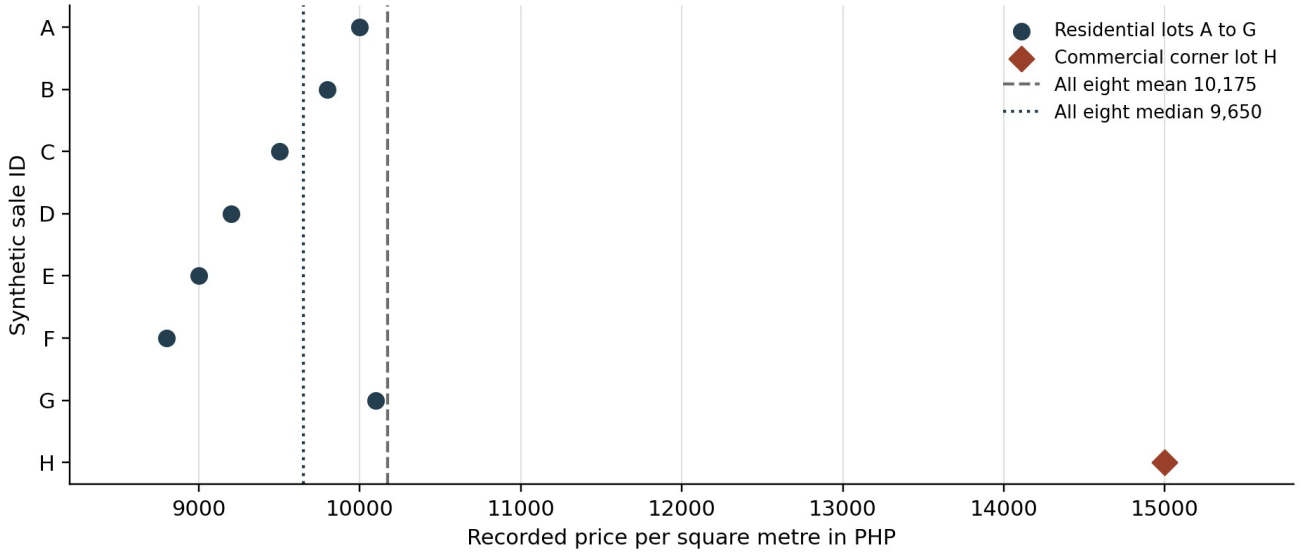


Figure 1. Original synthetic rates. The mean and median lines summarize all eight records. H belongs to a different supplied market category; the chart alone does not establish an error or a valid adjustment.

Sort a copy while retaining the sale identities

The ascending unit prices are 8,800; 9,000; 9,200; 9,500; 9,800; 10,000; 10,100; and 15,000. Sorting makes the median and quartile positions visible. Keep the original IDs linked to the numbers so that unusual values can be traced back to their facts.

Do not sort one column independently of the other fields in a real data file. If areas and prices are separated from their property IDs, the rows can become false combinations. Sort complete records or work on a clearly labeled copied series for hand calculation.

Throughout the next sections, “all eight” means the raw file including H, and “residential group” means A to G. State that distinction beside each statistic. A change in the analysis group should not appear as an unexplained change in the reported result.

4 Mean median mode and weighted estimates

The arithmetic mean gives each observation equal weight

For n observations, the arithmetic mean is their sum divided by n. Use x for an observed unit price and $\bar{x}$ for its mean. The symbol Σ means to add the stated quantity over all observations in the specified group.

For all eight unit prices, the sum is PHP 81,400 per square metre when the individual rates are added, and the mean is 81,400 ÷ 8 = PHP 10,175 per square metre. The sum is only an intermediate statistic; it is not the total price paid for the properties.

The mean uses every value, so a large or small record can move it substantially. If H’s rate had been 25,000 rather than 15,000, the eight-record mean would rise by 10,000 ÷ 8 = PHP 1,250 per square metre. The other seven records would remain unchanged.

Arithmetic mean $\bar{x} = \frac{\Sigma x}{n}$

The mean is useful when equal treatment of the observations answers the inquiry and the observations belong to a relevant group. It does not assess transaction quality. A poorly verified sale receives the same arithmetic weight as a well-verified sale unless the analysis uses an explicit weighting method.

An appraiser can calculate a raw mean as a descriptive check, then conclude that it is not the appropriate subject indication. Mathematical validity and appraisal relevance are separate judgments.

The median uses the ordered middle

For an odd number of sorted observations, the median is the middle value. For an even number, use the average of the two middle values under the conventional definition used here.

There are eight rates, so the middle positions are four and five: PHP 9,500 and PHP 9,800 per square metre. The median is (9,500 + 9,800) ÷ 2 = PHP 9,650 per square metre.

The median is less sensitive to the magnitude of a distant extreme. Raising H from 15,000 to 25,000 would not change the two middle positions or their average in this file. Removing H, however, changes the count to seven and the median becomes the fourth rate, PHP 9,500.

Resistance to extremes does not make the median automatically right for an individual property. If the whole group is from a different locality, interest or use, its median remains a summary of irrelevant evidence. Investigate the group before relying on its centre.

Mode and frequency describe repeated values

The mode is the most frequently occurring value. For rates of 9,000; 9,500; 9,500; 9,800; and 10,000, the mode is PHP 9,500 per square metre. A set can have two or more equally dominant repeated values.

In the eight-sale dataset, every exact unit price occurs once, so there is no repeated-value mode under this lesson’s convention. Software conventions can differ when all frequencies tie. State the convention instead of treating one arbitrary listed value as uniquely most common.

For continuous price data, a histogram groups observations into intervals. The modal interval is the interval with the largest count. It is not necessarily an exact observed price. Different interval widths or boundaries can change the apparent modal group.

Repeated rounded asking prices also require caution. Several PHP 3 million listings may reflect a pricing convention or duplicate advertisements. Their repetition does not independently establish the most common completed-sale price.

Calculate the residential group separately

For A to G, the sum of unit rates is 66,400 and n = 7. The mean is 66,400 ÷ 7 = approximately PHP 9,485.71 per square metre. The median is PHP 9,500.

The difference from the all-eight mean is 10,175 − 9,485.714286 = approximately PHP 689.29 per square metre. That numerical sensitivity is useful to report, but the reason for the group definition is the supplied residential-use inquiry, not a desire to reduce the estimate.

The raw residential mean still combines lots of different sizes. A pattern in unit prices may reflect size or other unmeasured characteristics. No size adjustment has been derived merely by calculating the mean. Keep the difference between a descriptive residential summary and a subject-specific conclusion.

A weighted mean answers an explicitly weighted question

A weighted mean multiplies each value by a specified weight, adds the products and divides by the sum of the weights. If the weights are nonnegative and sum to one, the denominator is already one.

Suppose three already adjusted teaching indications are PHP 9,200, PHP 9,600 and PHP 10,000 per square metre. Apply supplied weights of 20%, 50% and 30%. The result is 9,200 × 0.20 + 9,600 × 0.50 + 10,000 × 0.30 = PHP 9,640 per square metre.

These are exercise weights. In an appraisal, a reliability weight needs a reason related to verification, similarity and the adjustments required. A numerical weight does not remove the need to explain why a comparable deserves that influence.

$$\text{Weighted mean} = \frac{\Sigma(\text{weight} \times \text{indication})}{\Sigma\text{weights}}$$

Weights of 2, 5 and 3 produce the same result after division by their sum of ten. A common error is to use 20, 50 and 30 as though they already sum to one, inflating the result one hundredfold. State whether weights are decimals, percentages or relative scores.

For nonnegative weights, the weighted mean lies within the lowest and highest included values. A result of PHP 12,000 from only 9,200, 9,600 and 10,000 would indicate an input or calculation problem under this method. Being within the range does not prove that the weights are justified.

An area weighted rate is a different statistic

Total sale consideration divided by total area equals an area-weighted average of unit prices. It gives greater numerical weight to larger parcels. That is appropriate for an aggregate-price-per-aggregate-area question, but not automatically for appraisal reliability.

All eight properties have total price PHP 23,902,000 and total area 2,410 square metres. Their pooled rate is 23,902,000 ÷ 2,410 = approximately PHP 9,917.84 per square metre. It differs from the simple mean of PHP 10,175.

For A to G, total price is PHP 20,302,000 and total area 2,170 square metres. The pooled residential rate is approximately PHP 9,355.76 per square metre, compared with the simple mean of PHP 9,485.71. In this file, larger residential lots generally have lower unit rates, so area weighting gives those lower rates more influence.

Neither statistic is automatically wrong. They answer different questions. Choose the statistic that matches the purpose and label its weighting. Do not describe an area-weighted rate as if it were a professional reliability-weighted reconciliation.

5 Measure spread and inspect unusual observations

Range uses only the extremes

Range is the maximum less the minimum. In the all-eight file, range = 15,000 − 8,800 = PHP 6,200 per square metre. For A to G, range = 10,100 − 8,800 = PHP 1,300.

Range is easy to calculate, but it ignores where the other observations fall. Two groups can have the same minimum and maximum while one clusters tightly and the other is spread across the entire interval. Report a central measure alongside spread.

A range is not a prediction interval or a permitted valuation tolerance. It describes the observed extremes of the chosen file. An unobserved transaction can fall outside it, and an individual subject can require treatment different from the observed records.

Quartiles show the middle part of the distribution

Quartiles divide an ordered distribution into portions. Q1 is a lower quartile and Q3 an upper quartile. The interquartile range, IQR, is Q3 − Q1. Different accepted algorithms can give different sample quartiles, particularly with small samples.

This lesson uses a median-of-halves rule for the eight-record exercise: split the sorted list into two groups of four and take each half's median. When an odd-count exercise uses this rule, exclude the overall middle observation before taking the half medians. Follow a question's stated method if it differs.

The lower half is 8,800; 9,000; 9,200; 9,500. Q1 = (9,000 + 9,200) ÷ 2 = 9,100. The upper half is 9,800; 10,000; 10,100; 15,000. Q3 = (10,000 + 10,100) ÷ 2 = 10,050. IQR = PHP 950 per square metre.

The IQR describes the middle spread without directly using the magnitude of the maximum. It is useful beside the large overall range. It does not establish whether the transactions are comparable to the subject.

Use an outlier fence as an investigation flag

A common exploratory rule flags observations below Q1 − 1.5 × IQR or above Q3 + 1.5 × IQR. It is a screening convention, not a statutory rejection threshold and not a complete formal test of error.

Using the stated quartile method, the lower fence is 9,100 − 1.5 × 950 = PHP 7,675 per square metre. The upper fence is 10,050 + 1.5 × 950 = PHP 11,475. H's rate of PHP 15,000 is above the upper fence.

Investigate the flagged record. Here the supplied explanation is a commercial corner lot with a different use and access profile. It can be a valid transaction in its own market. For the residential-lot inquiry, the scope difference can justify analyzing it separately.

If H had the same use and verified conditions as the other records, its high price would need another explanation or further investigation. Automatically discarding it because it raises the average would bias the inquiry. The data could reveal a new market condition rather than an error.

Variance uses squared deviations from the mean

To measure how all observations spread around their mean, subtract the mean from each observation and square the differences. Squaring makes positive and negative deviations contribute positively and gives larger deviations more influence.

For a sample of n observations, sample variance s^2 is the sum of squared deviations divided by n − 1. Sample standard deviation s is its square root. For a defined finite population, population variance divides the squared deviations from its population mean by the population count N.

The sample n − 1 convention reflects the degrees of freedom after estimating the mean. Under the usual independent sampling conditions, this makes sample variance an unbiased estimator of population variance. The square-root standard deviation is not thereby an exactly unbiased estimator of population standard deviation.

For hand calculation, express the eight rates in PHP thousands per square metre. Their mean is 10.175 in those units. The following deviations are based on that mean, not on the median.

ID	Rate in PHP thousands per sqm	Deviation from 10.175	Squared deviation
A	10.000	−0.175	0.030625
B	9.800	−0.375	0.140625
C	9.500	−0.675	0.455625
D	9.200	−0.975	0.950625
E	9.000	−1.175	1.380625
F	8.800	−1.375	1.890625
G	10.100	−0.075	0.005625
H	15.000	4.825	23.280625
Total		0.000	28.135000

Sample variance $s^2 = \frac{\Sigma(x - \bar{x})^2}{n - 1}$

Sample variance = 28.135 ÷ 7 = 4.019285714 in squared thousand-peso-per-square-metre units. Standard deviation is its square root, approximately 2.004815631 thousand pesos per square metre, or PHP 2,004.82 per square metre.

Variance has squared units; standard deviation returns to the original units. Multiplying the thousand-unit standard deviation by 1,000 converts it to pesos per square metre. Converting the variance requires multiplying by 1,000 squared, not by 1,000.

H contributes about 23.281 of the 28.135 total squared deviations, so it has substantial influence on this measure. The observation remains a valid supplied commercial transaction. Statistical influence alone does not prove an error.

Relative spread needs a meaningful positive base

The coefficient of variation, CV, divides standard deviation by the mean and is commonly expressed as a percentage. For the all-eight file, sample CV = 2,004.815631 ÷ 10,175 × 100 = approximately 19.70%.

For the residential group, sample standard deviation is approximately PHP 504.74 per square metre and sample CV is approximately 5.32%. This smaller numerical spread reflects the narrower group. It does not prove that the subject's value has a 5.32% margin of error.

CV is most interpretable for positive ratio-scale quantities with a meaningful zero. It becomes unstable when the mean is near zero and can be misleading for signed cash-flow data or arbitrary coded scales. State which standard deviation convention is used.

There is no universal rule in this lesson that a given CV makes a property comparison acceptable or unacceptable. A small CV can arise from duplicated prices or a narrow biased source. A larger CV can arise from genuine diversity requiring segmentation.

Normal distribution rules require their assumptions

For a normal distribution, approximately 68%, 95% and 99.7% of the population lie within one, two and three population standard deviations of its mean. These are distribution-based approximations, not a rule that every small group of property sales must follow.

The eight-record file mixes two supplied market categories and contains very few observations. It should not be declared normal simply because a calculator provides a mean and standard deviation. Mean plus or minus two sample standard deviations is not automatically a 95% prediction range for a subject property.

Small datasets can conceal skewness, multiple market segments and influential records. Inspect the data and relevant property facts before using a distributional assumption. The normal rule is a statistical concept to understand, not a shortcut around comparability.

6 Sampling selection bias and dependence

A search process can shape the result

Selection bias occurs when the records available or chosen systematically differ from the population relevant to the inquiry. A file obtained only from premium developments may overrepresent larger budgets and better services. A file obtained only from urgent sale advertisements may emphasize different circumstances.

Consider an appraiser searching for 300-square-metre residential lots but collecting only sales near a major commercial road because those are easiest to verify. The records may be real and the calculations correct, yet the source coverage can differ from the subject's internal-road market.

The remedy is to examine and improve coverage, explain limitations and avoid overstating the conclusion. A larger count from the same narrow source does not remove the systematic omission. It may merely provide a more precise summary of the wrong group.

Choosing evidence because it supports a predetermined amount is also a source of bias. Define relevant inclusion criteria before inspecting the desired result where practical. If the search criteria change after learning more about the market, document the reason.

Missing transactions and unsold properties answer different questions

A completed-sale sample describes properties that actually traded. It may omit properties offered but never sold, rejected proposals or withdrawn listings. That distinction matters when studying liquidity, market exposure or absorption.

For a price comparison, completed transactions are important evidence, but they may not represent the entire offered stock. For an absorption study, the denominator must include the defined relevant stock rather than only successful sales. A sold-only file cannot independently establish the proportion of all listings that sell.

Likewise, developer launch prices and resale prices can cover different stages and terms. A marketed project can have few completed transactions despite many reservations. State what the data can answer and what further information is needed.

Do not treat absence from the file as proof that no transactions occurred. It may mean they were unavailable to the researcher. Search limitations belong in the evidence explanation.

Duplicate and clustered records reduce independent information

Five advertisements for one lot do not provide five independent price observations. Even five distinct transactions can share influences if they come from the same development, seller or bulk negotiation. The relationship between records can matter for statistical inference.

A dataset of twenty sales from one subdivision can be useful for a subject in that subdivision. It provides less direct information about a separate locality with different access and services. The sample size is twenty transactions, but its market coverage remains concentrated.

Independence is especially relevant when interpreting standard errors or confidence intervals. Those formulas do not become justified merely by counting rows. Duplicating each observation leaves the mean unchanged but can misleadingly make a naive standard error appear smaller.

Maintain a distinct transaction ID and a source relationship field. These are ordinary evidence controls, not software requirements. They help explain whether additional rows add new information.

Stratify when the market question supports it

Stratification separates relevant groups before summarizing or sampling. Residential internal-road lots, commercial corner lots and industrial sites may warrant separate analyses. Within a category, serviced and unserviced properties may still differ.

In the synthetic file, analyzing A to G together and H separately is an initial residential-versus-commercial distinction. Further division by lot size might reveal patterns, but the residential count is only seven. Creating many tiny groups can leave too little evidence to support a stable summary.

Choose categories based on the market and the assignment, not simply to make a spread statistic smaller. If two groups have overlapping characteristics and shared participants, a strict separation may also oversimplify the market. The grouping is an appraisal decision that needs explanation.

An analysis file should show both the original coverage and the group used for each calculation. That makes sensitivity and exclusions understandable to another reader.

7 Comparable adjustments and reconciliation

A statistical summary is not an adjustment method

The mean of raw unit prices does not adjust for size, date, location, rights or terms. The median does not adjust those differences either. They summarize the supplied amounts as recorded.

An adjustment seeks to express the comparable evidence on a basis relevant to the subject. Its direction and magnitude require support. If the comparable has a market-supported advantage over the subject, its evidence may require a downward adjustment when indicating the subject; if it is inferior, an upward adjustment may be appropriate under the chosen comparison framework.

Avoid deriving a universal percentage from an isolated difference. A corner-lot sale at 15,000 and an internal lot at 9,500 do not automatically demonstrate a corner premium of 57.89%. Their use, size, date and transaction circumstances can also differ.

This lesson introduces the connection between statistics and reconciliation. Detailed sales-comparison adjustment methods belong to later valuation lessons. The supplied adjusted indications below are exercise assumptions, not independently established adjustment rates.

Apply the stated adjustment base consistently

For a teaching comparable at PHP 10,000 per square metre, suppose the question explicitly supplies a 5% upward time adjustment and then a 3% downward location adjustment, each applied sequentially. The result is 10,000 × 1.05 × 0.97 = PHP 10,185 per square metre.

If the question instead says both percentages apply independently to the original rate, the result is 10,000 × (1 + 0.05 − 0.03) = PHP 10,200. These are different definitions of the adjustment base. Do not choose between them by habit when the facts specify one.

A pesos-per-square-metre adjustment is added or subtracted in those units. A whole-property peso adjustment must be applied at the whole-property level or converted carefully. Mixing the two without a consistent base can change the result incorrectly.

Record whether the final indication is a unit amount or a whole-property amount. For a subject of 300 square metres, a supplied reconciled unit amount of PHP 9,640 implies PHP 2,892,000 by multiplication. That final step assumes the adopted unit applies to the whole subject area.

Use quality and similarity to explain reconciliation

Reconciliation evaluates the indications together in light of the evidence and assignment. A well-verified recent sale with similar rights and physical characteristics can deserve more influence than a poorly verified record requiring several uncertain adjustments.

No fixed reliability-weight schedule is assumed here. The exercise weights of 20%, 50% and 30% demonstrate arithmetic. A professional report must explain the basis for its weighting or other reconciliation judgment. It need not manufacture percentage weights merely to appear mathematical.

Investigate a wide spread in adjusted indications before taking an average. It may signal unresolved differences, inconsistent adjustment bases, poor evidence or more than one market segment. Averaging can conceal those problems without solving them.

Also inspect apparent agreement. Three indications can be close because they rely on the same unverified source or adjustment assumption. Their closeness is not independent corroboration. Trace how each conclusion was developed.

8 Uncertainty in a mean and uncertainty for a property

Standard deviation and standard error describe different things

Standard deviation describes the spread of observations around their mean. The standard error of a sample mean describes variability in that mean across repeated samples under a sampling model.

For independent observations drawn under suitable common-distribution assumptions, the estimated standard error of the mean is s ÷ √n. The square root of n appears because averaging independent observations reduces variation in the mean. The relationship does not repair selection bias or missing market segments.

Consider a separate instructional sample of five positive readings: 90, 95, 100, 105 and 110. Their mean is 100, squared deviations sum to 250, sample variance is 250 ÷ 4 = 62.5, and s is approximately 7.905694. Estimated standard error is 7.905694 ÷ √5 = approximately 3.535534.

The readings are generic statistical numbers, not five verified comparable transactions. This example isolates the arithmetic and avoids presenting the land file as a random sample of a homogeneous real market.

Estimated standard error of the mean = $\frac{s}{\sqrt{n}}$

A confidence interval requires a defensible sampling model

For independent observations from a normal population with unknown variance, a conventional two-sided t interval for its mean is $\bar{x}$ plus or minus a supplied t critical value multiplied by s ÷ √n. The degrees of freedom are n − 1.

For the five generic readings, use a supplied 95% two-sided critical value of 2.776 for four degrees of freedom. Margin = 2.776 × 3.535534 ≈ 9.8146. The resulting interval is approximately 90.1854 to 109.8146. The supplied critical value is rounded, so final digits differ slightly from a calculation using a more precise table.

The 95% confidence level refers to the long-run coverage of the interval-building procedure under its assumptions. It is not a claim that 95% of individual observations fall in this interval, or that an already calculated interval has a frequentist 95% probability of containing a fixed mean. [7]

A convenience set of property transactions does not automatically justify that inference. A narrow confidence interval for a mean cannot compensate for irrelevant properties or systematically omitted sales. The land-file summaries in this lesson are descriptive; no formal population confidence interval is asserted for them.

A subject prediction is a separate question

An interval for a group's mean and an interval for a single future observation are different. A single observation has its own variation around a model as well as uncertainty in the model's fitted mean. Under the same ordinary assumptions, a prediction interval is therefore generally wider than the corresponding mean-response interval.

For an appraisal, the subject's rights, use, condition and location also require analysis. A group-mean interval should not be labeled as a property-value range without establishing how the subject relates to that group and what the interval actually represents.

This lesson does not calculate a regression prediction interval. Its regression dataset has only five fictional observations and is intended to teach fit and limitations. Understanding the distinction is more useful here than producing an apparently precise range from a demonstration file.

Report the supported conclusion and its material limitations in words. Numerical precision can be retained in the calculation while the final indication is reported at a precision appropriate to the evidence.

9 Scatter correlation and simple regression

Start with a scatterplot

A scatterplot places paired observations on two axes. Each point belongs to one record. Use it to inspect whether higher values of one variable tend to accompany higher or lower values of the other, and whether the relationship looks straight, curved, clustered or unusual.

The separate apartment dataset assumes five distinct cash-equivalent sales in one fictional segment and period. x is supplied floor area in square metres. y is total price in PHP millions. Similarity and verification are stipulated for teaching, but unmeasured differences may still be represented by the residuals.

Do not combine this file with the land-sale rates. It has a different property type, area definition and response variable. A total apartment price and a land price per square metre are not interchangeable numerical observations.

ID	Floor area x in sqm	Total price y in PHP millions
J	50	2.50
K	60	2.70
L	70	3.10
M	80	3.20
N	90	3.50

Correlation describes association

Pearson correlation r measures the direction and strength of a linear association between paired numerical variables. It lies between −1 and +1 when it is defined. A positive value means higher x tends to accompany higher y in the sample. A negative value means higher x tends to accompany lower y.

Correlation has no units. It is unchanged by converting y from pesos to millions of pesos using a positive scale factor. If one variable has no variation, the standard correlation denominator is zero and Pearson r is undefined.

For these five apartment records, r is approximately +0.9882. That is a strong positive linear association in this very small teaching sample. It does not show that adding floor area to any property will cause the same price change. Area may be associated with other attributes, and the records cover only a narrow supplied segment.

A zero Pearson correlation does not rule out a curved relationship. Plot the data before treating r as a complete description. A strong correlation can also be driven by one unusual point or by mixing separate clusters.

Fit the least squares line

For a simple straight-line model with an intercept, fitted price $\hat{y} = a + b \times x$. The slope b estimates the change in fitted y associated with one unit of x within the model. The intercept a places the line so that it passes through the sample point $(\bar{x}, \bar{y})$.

Ordinary least squares chooses the line that minimizes the sum of squared vertical differences between observed y and fitted $\hat{y}$. With an intercept, the slope is the sum of the paired deviations' products divided by the sum of squared x deviations. Then $a = \bar{y} - b \times \bar{x}$.

For the apartment data, $\bar{x}$ = 70 square metres and $\bar{y}$ = PHP 3.00 million. The centered calculation below avoids confusing raw x × y with products of deviations.

ID	x − 70	y − 3.00	Product	Squared x deviation
J	−20	−0.50	10.00	400
K	−10	−0.30	3.00	100
L	0	0.10	0.00	0
M	10	0.20	2.00	100
N	20	0.50	10.00	400
Total	0	0.00	25.00	1,000

Least squares slope $b = \frac{\Sigma[(x - \bar{x}) \times (y - \bar{y})]}{\Sigma(x - \bar{x})^2}$

b = 25 ÷ 1,000 = 0.025 PHP million per square metre, or PHP 25,000 per additional square metre in this fitted total-price model. a = 3.00 − 0.025 × 70 = PHP 1.25 million.

The fitted equation is $\hat{y} = 1.25 + 0.025 \times x$, with $\hat{y}$ in PHP millions and x in square metres. At 75 square metres, fitted price is 1.25 + 0.025 × 75 = PHP 3.125 million.

The slope's units matter. It is a change in total fitted price per square metre of x. It is not the property's average sale price per square metre. At x = 75, the fitted total divided by area is approximately PHP 41,666.67 per square metre, which is different from the slope PHP 25,000.

The intercept is the fitted amount at x = 0 under the algebra. Zero floor area is outside the sample range of 50 to 90 square metres, so the intercept should not automatically be interpreted as a market value for land or an apartment without floor area.

Read residuals as unexplained sample differences

A residual is observed y less fitted $\hat{y}$. A positive residual means the record lies above the line; a negative residual means it lies below. It is a model difference, not proof that a buyer overpaid or underpaid relative to an independently established market value.

At x = 70, the line predicts PHP 3.00 million while L's supplied price is PHP 3.10 million. Its residual is +PHP 0.10 million, or +PHP 100,000. At x = 60, fitted price is PHP 2.75 million and K's residual is −PHP 50,000.

Residuals can point to omitted attributes, measurement issues, nonlinear patterns or ordinary unexplained variation. Inspect them alongside the property facts. A systematic curve in residuals would suggest that a straight line does not describe the pattern adequately.

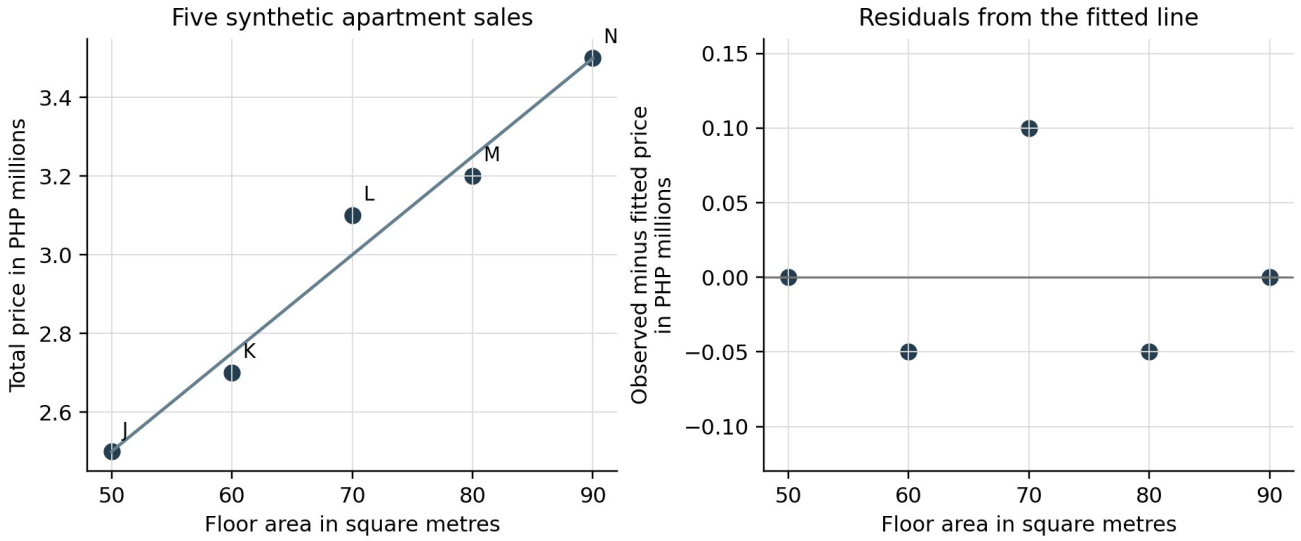


Figure 2. Original five-sale scatterplot and residuals for ŷ = 1.25 + 0.025x. The line is fitted to these same observations. Strong sample fit does not establish causation or performance on other properties.

R squared measures fit to this sample

For this ordinary least-squares model with an intercept, $R^2 = 1 - SSE \div SST$. SSE is the sum of squared residuals. SST is the sum of squared deviations of observed y from its mean.

The residuals in PHP millions are 0.00, −0.05, +0.10, −0.05 and 0.00. SSE = 0.015 in squared-million-peso units. SST = 0.25 + 0.09 + 0.01 + 0.04 + 0.25 = 0.64. $R^2 = 1 - 0.015 \div 0.64 = 0.9765625$, or approximately 97.66%.

This means the fitted model accounts for about 97.66% of the observed sample's squared variation in y around its mean under that definition. It does not mean each property's price is 97.66% accurate, that area causes 97.66% of value, or that a new property will be predicted within 2.34%.

With one explanatory variable and an intercept, R^2 equals Pearson r squared for the same observations. That relationship does not apply indiscriminately to models with different specifications or different datasets.

Check prediction limits and model construction

The fitted 75-square-metre amount is an interpolation within the observed 50–90 range. Predicting a 200-square-metre property is extrapolation beyond the file. It may produce a numerical result while relying on a relationship that has not been observed at that scale.

In a real market, a one-variable model can omit floor level, condition, parking, location, rights and date effects. A small residual within the teaching data does not prove those variables are unimportant elsewhere. Their importance depends on the actual market and assignment.

Testing a model only on the records used to fit it measures in-sample fit. Where enough suitable data exist, evaluation on separate observations can reveal prediction performance more honestly. A very small file may not support a reliable separate test set; acknowledge the limit rather than inventing validation.

Watch for leakage: using information that would not have been known at the valuation date or allowing duplicate property records into both model fitting and testing. Those errors can create impressive apparent performance without a valid forecasting procedure.

For this lesson, the regression line is a learning exercise. It is not an automated market-value service or a replacement for the applicable standards and the appraiser's judgment.

10 Calculator methods and professional explanation

Use a transparent hand calculation

For the mean, add the relevant rates and divide by their count. For the median, sort a copy and identify the correct middle positions. Do not select the middle row of the unsorted evidence table.

For sample standard deviation, calculate the mean first, subtract it from each rate, square each deviation, add the squares, divide by n − 1, then take the square root. Expressing the rates in thousands reduces the size of the arithmetic, but remember to convert the final standard deviation back to the original unit.

For the eight-record file, squared deviations sum to 28.135 in the scaled units. Divide by seven and take the square root to obtain 2.004815631. Multiply by 1,000 to report PHP 2,004.82 per square metre.

An equivalent computational formula is $s^2 = [\Sigma x^2 - (\Sigma x)^2 \div n] \div (n - 1)$. It gives the same result with full precision. It subtracts two potentially large, similar quantities, so excessive rounding can produce distortion. The centered-deviation method is often easier to audit by hand.

Know which calculator statistic is being returned

If an eligible calculator has a permitted statistics function, distinguish its population standard deviation from its sample standard deviation. Labels and menu conventions vary by model. A calculator may return both results from the same entered data.

The population standard deviation of the eight teaching rates is approximately PHP 1,875.33 per square metre. The sample result is approximately PHP 2,004.82. The difference comes from the denominator convention, not a different dataset.

Verify the exact model and allowed functions under the current PRC issuances and the examination-specific program. The September 2026 advisory confirms that similar features or related model names do not automatically establish approval. This lesson does not certify any calculator for 2027. [8]

The procedures here can be followed using ordinary arithmetic, square root and a written working table where those functions are available and permitted. Statistical solver output is useful only when you understand the underlying definition and inputs.

Report the statistic and its limits together

A useful evidence statement identifies the group, quantity, date, central measure and relevant limitation. Avoid writing only “average value is PHP 9,486” when the figure is an unadjusted unit-price mean of seven residential sales.

A suitable teaching statement is: “For synthetic residential records A to G, the unadjusted mean recorded unit price is approximately PHP 9,485.71 per square metre and the median is PHP 9,500. The records vary in area, and no size or subject-specific adjustment has been derived.”

For H, explain the treatment separately: “H is retained in the evidence file but analyzed separately because its supplied commercial use and corner profile differ from the residential subject. Its rate also exceeds the exploratory upper fence under the stated quartile convention.”

For regression, identify the response units, observed x range and model limitations. Report fitted price as a model result, not as a completed appraisal. A clear explanation gives the reader enough information to understand both the calculation and its practical reach.

11 Ten worked cases

Attempt each case before reading its solution. Rates and transactions are fictional. Use the stated analysis group, statistic and quartile convention. Show units and keep sufficient internal precision.

Case 1 Verify the unit calculation

Question: A supplied completed land transaction has price PHP 3,600,000 and area 240 square metres. Calculate its unit price. Can the result establish that the property is overpriced?

Solution: Unit price = 3,600,000 ÷ 240 = PHP 15,000 per square metre.

Reasoning: The arithmetic is correct. A conclusion about overpricing would require relevant market evidence and an analysis of rights, use, access and circumstances. A high number alone cannot establish it.

Case 2 Summarize all eight records

Question: Use the eight sorted unit rates 8,800; 9,000; 9,200; 9,500; 9,800; 10,000; 10,100; and 15,000. Calculate the mean, median and range.

Solution: Mean = 81,400 ÷ 8 = PHP 10,175 per square metre. Median = (9,500 + 9,800) ÷ 2 = PHP 9,650. Range = 15,000 − 8,800 = PHP 6,200.

Reasoning: The mean is affected by the high commercial rate. The median describes the middle of the combined file, and the range describes its extremes. None automatically adjusts the commercial record to the residential subject.

Case 3 Explain a group change

Question: H is supplied as a commercial corner transaction. The residential inquiry analyzes A to G separately. Their rate sum is 66,400. Calculate their mean and explain why “delete H because it raises the average” is an inadequate reason.

Solution: Residential mean = 66,400 ÷ 7 = approximately PHP 9,485.71 per square metre. Its median is PHP 9,500.

Reasoning: The use and access distinction supports separate analysis for this subject. A desire to lower the average does not support exclusion. H remains a potentially valid commercial transaction and should remain traceable.

Case 4 Calculate sample spread on a short list

Question: Five unit rates in PHP thousands per square metre are 8, 9, 10, 11 and 12. Calculate mean, sample variance, sample standard deviation and sample CV.

Solution: Mean = 10. Squared deviations are 4, 1, 0, 1 and 4, totaling 10. Sample variance = 10 ÷ 4 = 2.5 in squared scaled units. s = √2.5 = 1.581139 scaled units, or PHP 1,581.14 per square metre. CV = 1.581139 ÷ 10 × 100 ≈ 15.81%.

Reasoning: Divide by n − 1 for the specified sample convention. Take the square root before converting standard deviation back to pesos. CV measures relative sample spread; it is not a value-error guarantee.

Case 5 Apply the stated outlier fence

Question: Use Case 2's sorted eight rates and the median-of-halves convention. Calculate Q1, Q3, IQR and both 1.5 IQR fences. Identify any flagged rate.

Solution: Q1 = (9,000 + 9,200) ÷ 2 = 9,100. Q3 = (10,000 + 10,100) ÷ 2 = 10,050. IQR = 950. Lower fence = 7,675; upper fence = 11,475. The 15,000 rate is above the upper fence.

Reasoning: The fence flags a record for inquiry. It does not prove transcription error, fraud or a mandatory exclusion. Different quartile algorithms can change the exact fence, so the method must be stated.

Case 6 Reconcile supplied adjusted indications

Question: Adjusted teaching indications are PHP 9,200, PHP 9,600 and PHP 10,000 per square metre. Supplied weights are 20%, 50% and 30%. Calculate the weighted rate and the corresponding amount for a 300-square-metre subject.

Solution: Weighted rate = 1,840 + 4,800 + 3,000 = PHP 9,640 per square metre. Subject arithmetic amount = 9,640 × 300 = PHP 2,892,000.

Reasoning: The weights sum to one and the result lies within the supplied indications. The exercise supplies adjustments and weights; a professional appraisal would need to justify both.

Case 7 Compare simple and pooled rates

Question: One lot has area 100 square metres and price PHP 1 million. Another has area 250 square metres and price PHP 2 million. Calculate the simple mean of unit prices and the pooled total-price-per-total-area rate.

Solution: Individual rates are PHP 10,000 and PHP 8,000 per square metre. Their simple mean is PHP 9,000. Pooled rate = 3,000,000 ÷ 350 = approximately PHP 8,571.43 per square metre.

Reasoning: The pooled rate weights the lower-rate larger lot more heavily by area. It answers an aggregate-area question, not automatically an appraisal reliability question.

Case 8 Calculate a fitted price and residual

Question: Use $\hat{y} = 1.25 + 0.025x$, with x in square metres and y in PHP millions. Calculate the fitted amount at 75 square metres. For a 70-square-metre sale observed at PHP 3.10 million, calculate its residual.

Solution: At 75, $\hat{y} = 1.25 + 1.875 =$ PHP 3.125 million. At 70, fitted y is PHP 3.00 million, so residual = 3.10 − 3.00 = +PHP 0.10 million.

Reasoning: The positive residual places the observed sale above the line. It does not prove the buyer overpaid. The 75-square-metre result is within the model's observed 50–90 range.

Case 9 Interpret model fit

Question: In the five-sale regression, SSE = 0.015 and SST = 0.64 in squared-million-peso units. Calculate R^2. Does the result prove area causes that share of price or guarantee prediction accuracy?

Solution: $R^2 = 1 - 0.015 \div 0.64 = 0.9765625$, or approximately 97.66%.

Reasoning: It describes the model's fit to these sample observations around their mean. It does not establish causation or an error percentage for a new property. External performance and omitted characteristics remain separate questions.

Case 10 Distinguish a mean interval from a price range

Question: A separate instructional sample has mean 100, sample s = 7.905694 and n = 5. Assume independent normal-population sampling, and use a supplied 95% two-sided t critical value of 2.776. Calculate standard error and the mean interval. Can it be labeled as a subject property's value range?

Solution: Standard error = $7.905694 \div \sqrt{5} \approx 3.535534$. Margin = $2.776 \times 3.535534 \approx 9.8146$. Mean interval ≈ 90.1854 to 109.8146.

Reasoning: This interval concerns a population mean under the supplied sampling assumptions. A property prediction or appraisal value range is a different question. The generic sample does not supply property comparability evidence.

12 Evidence analysis worksheet

Use the original datasets in sections 3 and 9. Complete the numerical workings on a separate sheet. Report rates in PHP per square metre and apartment amounts in PHP millions unless the task requests otherwise.

1. For all eight land records, calculate mean, median and range. State whether these are raw unit-price statistics or adjusted subject-value indications.

Your response: _____

2. Using the stated median-of-halves rule, calculate Q1, Q3, IQR and the upper 1.5 IQR fence. Explain what a flag means.

Your response: _____

3. Analyze A to G as a residential group. Calculate the mean and median, then explain the reason for treating H separately.

Your response: _____

4. Using total residential price PHP 20,302,000 and area 2,170 sqm, calculate the pooled rate. Explain why it differs from the simple mean.

Your response: _____

5. For all eight rates in PHP thousands per sqm, squared deviations from 10.175 sum to 28.135. Calculate sample variance, sample standard deviation in original units and sample CV.

Your response: _____

6. For the apartment file, use the centered sums 25 and 1,000 with means $\bar{x} = 70$ and $\bar{y} = 3.00$. Calculate slope, intercept and fitted total price at x = 85.

Your response: _____

7. At x = 80, observed apartment price is PHP 3.20 million. Calculate its fitted price and residual. Explain what the residual does and does not establish.

Your response: _____

8. Write 100–150 words explaining which land group informs the residential inquiry, the main descriptive results, remaining size differences and further evidence needed before adopting a subject-specific amount.

Your response: _____

13 Review and essential terminology

Measure	What it describes	Main caution
Mean	Sum of values divided by count	Affected by extremes and group composition
Median	Ordered middle of the observations	Does not adjust comparability differences
Weighted mean	Average under specified weights	Weight purpose and justification must be clear
Range	Maximum less minimum	Uses only the extremes
IQR	Upper less lower quartile	Small-sample algorithms can differ
Sample s	Spread around the mean using n − 1	Spread is not a subject-value error margin
CV	Standard deviation relative to mean	Use a meaningful positive ratio-scale base
Standard error	Variation of an estimated mean under a model	Sampling assumptions and bias matter
Residual	Observed response less fitted response	Does not establish overpayment or cause
R squared	Sample fit around the response mean	Does not guarantee prediction accuracy

Check the evidence before adopting the result

- Define the subject interest, market segment, date and unit.
- Identify distinct transactions and separate listings from sales.
- Verify material circumstances and preserve unresolved issues.
- Use consistent areas, prices and dates before calculating.
- Report the analysis group and statistic convention.
- Investigate extreme or influential records using their facts.
- Distinguish descriptive summaries from justified adjustments.
- Explain weighting, model scope and material limitations.

A correct calculation strengthens an evidence explanation. It cannot supply missing verification, make an unrelated market comparable or establish the official weighting of a 2027 examination topic.

14 Original practice test

Choose one best answer. Suggested time: 40 minutes. All 20 items are newly authored learning exercises, not actual or recalled PRC questions. Use the stated sample and quartile conventions; numerical options are rounded as shown.

1. Four agent websites display the same lot at the same asking price. What is the best treatment?

A. Count four independent completed sales

B. Record one identified listing and retain the linked sources

C. Average the four advertisements to establish market value

D. Treat the asking price as a verified sale price

2. Which statistic is the median of 8,800; 9,000; 9,200; 9,500; 9,800; 10,000; 10,100; and 15,000?

A. 9,500

B. 10,175

C. 10,000

D. 9,650

3. The eight rates in Question 2 sum to 81,400. What is their simple arithmetic mean?

A. 10,175

B. 9,650

C. 81,400

D. 9,485.71

4. A high-price sale is verified as a commercial corner lot while the subject is residential with ordinary access. What best supports separate analysis?

A. The high price raises the average

B. Every statistical outlier must be removed

C. The supplied market and use difference

D. The median always excludes high prices

5. Using the median-of-halves rule, the lower half is 8,800; 9,000; 9,200; 9,500. What is Q1?

A. 9,100

B. 9,000

C. 9,200

D. 9,250

6. Q1 is 9,100 and Q3 is 10,050. What is the upper 1.5 IQR fence?

A. 10,050

B. 11,475

C. 15,000

D. 7,675

7. Sample values are 8, 9, 10, 11 and 12, with mean 10. Squared deviations sum to 10. What is sample variance?

A. 10

B. 2

C. 1.581139

D. 2.5

8. Sample standard deviation is 500 and the positive mean is 10,000. What is sample CV?

A. 500%

B. 20%

C. 5%

D. 0.5%

9. Which measure retains the original units after calculating squared deviations?

A. Variance

B. Standard deviation

C. Squared residual sum

D. Observation count

10. All exact unit prices in a file occur once. Under this lesson's repeated-value convention, what is the mode?

A. There is no repeated-value mode

B. The largest price

C. The mean

D. The median

11. Adjusted indications are 9,200, 9,600 and 10,000 with weights 0.20, 0.50 and 0.30. What is the weighted mean?

A. 9,600

B. 28,800

C. 9,640

D. 964,000

12. Prices are PHP 1 million for 100 sqm and PHP 2 million for 250 sqm. What is the pooled total-price-per-total-area rate?

A. PHP 9,000 per sqm

B. PHP 10,000 per sqm

C. PHP 8,000 per sqm

D. Approximately PHP 8,571.43 per sqm

13. A researcher collects only premium-project sales to describe ordinary residential lots throughout a locality. What is the main concern?

A. Currency rounding

B. A missing calculator function

C. Too many observations

D. Selection bias and market coverage

14. A fitted model is $\hat{y} = 1.25 + 0.025x$, where y is PHP millions and x is sqm. What is fitted total price at x = 75?

A. PHP 1.875 million

B. PHP 3.125 million

C. PHP 25,000

D. PHP 41,666.67

15. At x = 70, observed price is PHP 3.10 million and fitted price is PHP 3.00 million. What is the residual?

A. +PHP 0.10 million

B. −PHP 0.10 million

C. PHP 3.00 million

D. PHP 0.025 million

16. For an OLS model with an intercept, SSE = 0.015 and SST = 0.64. What is R^2?

A. 2.34375%

B. 0.64%

C. Approximately 97.65625%

D. Approximately 98.82118%

17. A strong positive Pearson correlation in five property sales establishes which statement?

A. The variables have a strong positive linear association in that sample

B. The first variable necessarily causes the second

C. Each prediction has negligible error

D. Omitted attributes are irrelevant

18. A model was fitted only on floor areas from 50 to 90 sqm. Predicting 200 sqm is best described as what?

A. Interpolation

B. An observed comparable transaction

C. A verified market value

D. Extrapolation beyond the observed range

19. Under suitable independent sampling assumptions, s = 10 and n = 25. What is the estimated standard error of the mean?

A. 10

B. 0.4

C. 2

D. 50

20. Which statement about a conventional 95% confidence interval for a mean is best?

A. It contains 95% of individual property prices

B. Its procedure has about 95% long-run coverage under its assumptions

C. It automatically establishes a subject property value range

D. It removes selection bias from convenience data

15 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	C
2	D	12	D
3	A	13	D
4	C	14	B
5	A	15	A
6	B	16	C
7	D	17	A
8	C	18	D
9	B	19	C
10	A	20	B

1. B Multiple advertisements can refer to one property. They do not create independent transactions or establish completion.

2. D Eight observations have middle positions four and five. Their average is (9,500 + 9,800) ÷ 2 = 9,650.

3. A Divide the sum by eight. The result describes all eight raw unit rates, not a subject-specific adjustment.

4. C The factual scope difference supports examining the sale separately. Numerical influence alone is not sufficient justification.

5. A The lower half has four observations. Average its middle two: (9,000 + 9,200) ÷ 2 = 9,100.

6. B IQR is 950. Upper fence is 10,050 + 1.5 × 950 = 11,475. It is an investigation flag.

7. D For the specified sample formula, divide by n − 1 = 4. The variance is 2.5; its square root is sample standard deviation.

8. C CV = 500 ÷ 10,000 × 100 = 5%. It describes relative spread, not guaranteed valuation accuracy.

9. B Taking the square root of variance restores the original measurement units.

10. A No observed value occurs more frequently by repetition. A modal histogram interval is a different concept.

11. C Products are 1,840, 4,800 and 3,000. They sum to 9,640, with weights summing to one.

12. D Divide PHP 3 million by 350 sqm. This area-weighted rate differs from the simple mean of the two unit rates.

13. D A systematically narrow source can differ from the relevant population. A larger count from the same source does not remove that bias.

14. B Calculate 1.25 + 0.025 × 75 = 3.125 million. This is the total fitted amount, not a unit rate or the slope.

15. A Residual is observed less fitted. It indicates the point lies above the line, not that an independently established market value was exceeded.

16. C $R^2 = 1 - 0.015 \div 0.64 = 0.9765625$. The 98.82% figure is approximately the positive r in this example, not R^2.

17. A Correlation describes sample association. Causal claims and prediction performance require additional support.

18. D The 200 sqm input is outside the fitted sample's range. The numerical output may rely on an unsupported extension of the relationship.

19. C Standard error is s ÷ √n = 10 ÷ 5 = 2. It is different from the spread of the individual observations.

20. B The confidence level concerns the interval method under its model. It does not describe individual-price coverage or repair an unsuitable sample.

Evidence analysis worksheet solutions

1. All-eight mean = 81,400 ÷ 8 = PHP 10,175 per sqm. Median = PHP 9,650 per sqm. Range = PHP 6,200 per sqm. These are raw recorded-price summaries; no subject-specific adjustments have been derived.

2. Q1 = PHP 9,100; Q3 = PHP 10,050; IQR = PHP 950 per sqm. Upper fence = PHP 11,475 per sqm. H is flagged at PHP 15,000. Investigate its supplied facts; the flag is not automatic proof of an error.

3. A to G mean = 66,400 ÷ 7 ≈ PHP 9,485.71 per sqm. Median = PHP 9,500 per sqm. H has a different supplied commercial use and corner-access profile, so the residential inquiry analyzes it separately while retaining its record.

4. Pooled residential rate = 20,302,000 ÷ 2,170 ≈ PHP 9,355.76 per sqm. It weights unit prices by area. The simple mean gives each transaction equal weight. Larger lots in this synthetic group generally have lower unit rates.

5. Sample variance = 28.135 ÷ 7 = 4.019285714 in squared scaled units. Sample s = √4.019285714 × 1,000 ≈ PHP 2,004.82 per sqm. Sample CV = 2,004.815631 ÷ 10,175 × 100 ≈ 19.70%. Spread does not establish a subject-value error margin.

6. b = 25 ÷ 1,000 = 0.025 PHP million per sqm. a = 3.00 − 0.025 × 70 = PHP 1.25 million. At x = 85, $\hat{y}$ = 1.25 + 0.025 × 85 = PHP 3.375 million. This is an in-range fitted total-price result.

7. At x = 80, fitted price is 1.25 + 2.00 = PHP 3.25 million. Residual = 3.20 − 3.25 = −PHP 0.05 million, or −PHP 50,000. The record is below the fitted line; that does not by itself establish a bargain, defect or cause.

8. Example explanation: "Synthetic residential transactions A to G inform the residential-lot inquiry more directly than H, whose supplied commercial use and corner profile differ. The unadjusted residential mean is approximately PHP 9,485.71 per square metre and the median is PHP 9,500. The pooled rate is lower because area weighting gives larger, lower-rate parcels more influence. These are descriptive results, and no size or other subject-specific adjustment has been established. H remains in the evidence file and can inform a separate commercial inquiry. Before adopting a subject amount, the appraiser would need suitable verification of the transaction terms and areas, analysis of size and other relevant differences, supported adjustments where needed, and an explanation of the reconciliation and remaining limitations."

Direct your next study session

For each error, identify whether it involved the analysis group, unit, denominator, order, weighting, formula or interpretation. Recalculate with the correct convention, then explain the result without reading the key. Lesson 8 examines the architecture of PVS and IVS so that these evidence decisions can be placed within the applicable professional framework.

16 Sources and examination preparation status

The PRC's published August 2024 program includes practical appraisal mathematics, statistics, valuation procedures and research. These verified headings support this lesson's coverage. The final 2027 program, subtopic weighting and calculator instructions require verification against the applicable PRC issuances. The chapter sequence and original exercises are editorial curriculum choices. [1]

The numerical datasets, charts, calculations and questions are newly authored. Statistical relationships are explained through original examples rather than copied questions. The references below identify independently checked foundations. Philippine professional work requires the applicable national valuation standards and legal framework; the PVS third edition is listed as a reading reference, while the specific standards clauses used here were checked in the accessible IVS 2025 text. [2, 9]

1 PRC examination coverage

Professional Regulatory Board of Real Estate Service. Program of the Real Estate Appraisers Licensure Examination on August 8 2024 in NCR, page 1. Practical appraisal mathematics and valuation procedures and research.
https://www.prc.gov.ph/sites/default/files/exam%20program%20appraiser%20august%202024%20%28rev%29.pdf

2 Data and comparable evidence

International Valuation Standards Council. IVS effective 31 January 2025. IVS 104 sections 30–50 and IVS 400 section 100. Standards text hosted by SAICA. Concepts are summarized in original language; no standards text is reproduced.
https://saicawebprstorage.blob.core.windows.net/uploads/resources/IVS-effective-31-January-2025.pdf

3 Central tendency

NIST and SEMATECH. Engineering Statistics Handbook, section 1.3.5.1 Measures of Location. Definitions of mean, median and mode.
https://www.itl.nist.gov/div898/handbook/eda/section3/eda351.htm

4 Statistical spread

NIST and SEMATECH. Engineering Statistics Handbook, section 1.3.5.6 Measures of Scale. Sample variance, standard deviation, range and interquartile spread.
https://www.itl.nist.gov/div898/handbook/eda/section3/eda356.htm

5 Investigating outliers

NIST and SEMATECH. Engineering Statistics Handbook, section 1.3.5.17 Detection of Outliers. Distinguishes investigation of unusual observations from unsupported removal. The stated median-of-halves fence convention is a teaching choice.
https://www.itl.nist.gov/div898/handbook/eda/section3/eda35h.htm

6 Least squares regression

NIST and SEMATECH. Engineering Statistics Handbook, section 4.1.4.1 Linear Least Squares Regression. Least-squares model fitting; all apartment data and chart calculations here are original.
https://www.itl.nist.gov/div898/handbook/pmd/section1/pmd141.htm

7 Confidence limits

NIST and SEMATECH. Engineering Statistics Handbook, section 1.3.5.2 Confidence Limits for the Mean. Conventional t interval and long-run confidence interpretation. The generic five-reading example uses a supplied rounded critical value.
https://www.itl.nist.gov/div898/handbook/eda/section3/eda352.htm

8 Calculator preparation

Professional Regulation Commission. Public Advisory on the List of Allowable Calculators during Licensure Examinations, 18 September 2026. Exact models and applicable examination-specific issuances must be checked for 2027.
https://www.prc.gov.ph/article/public-advisory-list-allowable-calculators-during-licensure-examinations

9 National standards reading

Bureau of Local Government Finance. Philippine Valuation Standards third edition 2025, online edition. National-standard reading reference; this chapter does not claim full-text PVS verification.
https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

REALEX

Lesson 8

Philippine Valuation Standards and International Standards

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

An appraisal report can contain accurate arithmetic and still answer the wrong assignment. It may identify a parcel but omit the interest being valued, use an outdated standards reference, or present a future completed project as if it already existed. Standards help the appraiser make the assignment understandable and the conclusion supportable.

This lesson explains how Philippine law, Philippine Valuation Standards and International Valuation Standards relate to one another. You will learn to locate the relevant edition, read the strength of a requirement, and separate an effective standard from an explanatory publication or a proposal. You will also practise identifying which part of the standards addresses a problem in a fictional appraisal.

The chapter teaches a way of working with standards through original explanations and scenarios. It does not reproduce a standards manual. The cases, worksheet and questions are newly authored educational material. No case represents a real engagement or an actual or recalled PRC examination question.

Your learning goals

- Explain the different functions of RESA, RPVARA, PVS and IVS.
- Identify the source and status of a rule before applying it.
- Distinguish publication date, effective date, valuation date and report date.
- Use an edition-specific reference rather than memorizing a clause number alone.
- Navigate the IVS 2025 General Standards and relevant Asset Standards.
- Interpret must and should without treating them as interchangeable.
- Recognize a jurisdictional requirement and distinguish it from a client preference.
- Explain why a report template or model cannot establish compliance by itself.
- Locate Philippine guidance for a specialized valuation inquiry.
- Prepare a standards reference record and solve an assignment case with reasons.

Study plan: Allow approximately four hours in two sessions. Read sections 1–6 to understand authority and editions. Then study the applied assignment, reporting and Philippine guidance examples before attempting the ten cases and 20-question practice test. Keep an official standards copy available for clause checking.

1 Why standards matter to an examinee

A value conclusion needs a defined question

A developer asks an appraiser for the value of a partly completed commercial building. The project file includes land cost, construction expenditure, a projected selling price and a loan balance. Each amount may be correct in its own records. None tells the appraiser what opinion the client actually needs.

The assignment could concern the property in its current condition, its value at a future completion date, the developer's investment worth, or a specified accounting measurement. The physical building might be the same, but the relevant assumptions and evidence would differ. Start by identifying the question and the parties who will use the answer.

Standards provide a common structure for that reasoning. They help the appraiser explain the subject, the date, the measurement objective and the work supporting the conclusion. A reader can then assess whether the opinion answers the stated purpose rather than merely recognizing a familiar formula.

For examination preparation, learn to diagnose the defect in a situation. A question may describe a beautiful report with no valuation date or a detailed model built on unverified inputs. The defect is usually found in the relationship between the assignment and the work performed. An impressive document does not settle that relationship.

Compliance is a conclusion about the work

Imagine two reports that each conclude PHP 12 million. One identifies the ownership interest, explains its evidence and states the assumptions. The other presents the amount on a letterhead with a generic reference to international practice. Agreement on the number does not make their reasoning equally clear.

The word compliant should be used carefully. It describes whether the applicable requirements have been met. It is not a synonym for attractive formatting, a professional signature or a result acceptable to the client. A report must be assessed in the context of its assignment and the requirements that actually apply.

An appraiser may make a reasonable judgment within a principles-based framework. Reasonable valuers can differ about the weight of evidence while working within that framework. A difference of opinion is not, by itself, proof of noncompliance. Conversely, a plausible amount cannot cure missing essential work.

The skill you need is to move from a fact in the question to the relevant requirement and then to a reasoned response. Keep that sequence visible in your notes. Write the problem, identify the source, explain its application and state what further work is necessary.

Standards knowledge supports the full appraisal process

Lesson 1 introduced property rights and assignments. Lesson 2 distinguished value concepts, while Lessons 6 and 7 developed calculation and evidence skills. This lesson connects those foundations with the standards source that governs the work.

For example, a mean unit price from Lesson 7 describes a dataset. Before using it in an appraisal, you still need to know whether the data relate to the correct interest, date and purpose. A standards inquiry brings those questions into the assignment record and the explanation delivered to the intended reader.

The PRC's published August 2024 examination program separately names Philippine and international valuation standards within standards and ethics. It also identifies valuation procedures, research and report writing in professional practice. These verified headings support studying standards as both knowledge and

applied reasoning. The final 2027 examination program and detailed topic weights remain matters for official confirmation. [1]

2 Philippine law and the national standards system

RESA regulates the professional activity

Republic Act No. 9646 is the Real Estate Service Act of the Philippines, commonly called RESA. It regulates real estate service practice and establishes the Professional Regulatory Board of Real Estate Service under the PRC. Its treatment of a real estate appraiser includes a duly registered and licensed natural person who renders an opinion on real estate values, with the service finally expressed in an acceptable written report. [2, sections 3 and 4]

The practical distinction is between being authorized to practise and performing an assignment properly. Professional registration does not select the correct basis of value for a particular property. A standards manual does not grant a professional license. The appraiser must address both the legal capacity to practise and the requirements of the work.

A person with extensive construction estimating experience may understand quantities, unit rates and project costs. That experience can assist valuation work, but it should not be treated as an automatic substitute for the legal and professional qualifications required for appraisal practice. Likewise, an appraiser may need specialist assistance on a complex technical component.

For a study question, identify whether the problem concerns permission to offer the service, professional conduct, or the method and reporting of a valuation. Those issues interact, but their primary sources differ. Answering a licensing issue with a formula is as incomplete as answering a valuation evidence issue with a license number.

RPVARA strengthens the national valuation framework

Republic Act No. 12001 is the Real Property Valuation and Assessment Reform Act, abbreviated RPVARA. Its purposes include maintaining standards based on PVS, adopting market value as the common valuation base for the specified taxation and government purposes, and separating property valuation from tax policy and tax administration. [3, sections 1–4]

The Act identifies PVS as national standards designed for use in the Philippines, based on IVS and approved by the Secretary of Finance. It gives the BLGF a leading implementation role. Section 13 addresses uniform valuation standards for local government appraisers and assessors and other persons, entities or agencies conducting the specified real property valuation activities. [3, sections 4, 5 and 13]

Do not reduce RPVARA to a tax percentage or an amnesty provision. Its standards function affects how valuation evidence is developed and how government property values are made more consistent. Its institutional provisions also explain why BLGF and the Department of Finance appear in a national standards inquiry.

The Act’s national valuation objectives do not mean that every property immediately acquires one mechanically identical number for all dates and purposes. A parcel’s rights, condition and relevant evidence still need analysis. Different valuation dates can produce different supported values. A statutory tax calculation is also a different question from a market-value opinion.

Valuation and assessment remain distinct

Under the Act's definition, assessed value is obtained by multiplying market value by the corresponding assessment level. The valuation amount and the assessed amount therefore perform different functions. A percentage used to derive taxable value should not be presented as a universal deduction from an appraisal opinion. [3, section 4]

For an original arithmetic exercise, suppose the supplied market value is PHP 8,000,000 and the question stipulates an assessment level of 20%. Assessed value is PHP 1,600,000. This calculation does not establish that 20% is the legally applicable level for a real property. The exercise supplies the percentage solely to distinguish the concepts.

If another question supplies an annual tax rate, applying it to the correct base is a further step. Keep the valuation, assessment and tax calculations separately labeled. Do not call the resulting tax bill market value, or assume that a low tax bill establishes a low market price.

RPVARA's SMV provisions contain approval, publication, use and transition requirements. A study lesson on standards should direct you to those provisions when a case raises an SMV issue. It should not assume that every locality has completed the same implementation step on the same date. Detailed SMV and tax administration work belongs to the dedicated government assessment lessons.

Institutions have different responsibilities

The PRC and its professional board deal with professional regulation. The Department of Finance and BLGF perform the national valuation functions given to them by law. The IVSC develops international valuation standards. A professional organization, lender or employer may also establish requirements within its own valid scope.

These roles can coexist. A Philippine engagement may involve a licensed appraiser, PVS, a specific legal measurement requirement and agreed reporting terms. The assignment record should identify the requirements relevant to that work rather than choosing one institution's name as an all-purpose answer.

An international organization's publication should not be mistaken for a Philippine statute. Equally, a Philippine law that uses international concepts does not remove the need to identify the national adoption and the applicable local requirements. Trace the authority from the actual source.

Source or institution	Main question for the learner
RESA and PRC	Who may practise and what professional regulation applies
RPVARA	What national real property valuation framework the law establishes
DOF and BLGF	What national standards and valuation issuances are prescribed
PVS	How the nationally adopted standards apply in Philippine valuation
IVSC and IVS	What international standards framework and edition are being used
Client or lender terms	What additional agreed requirements apply within lawful limits

3 How PVS and IVS relate

National adoption requires a source

PVS provides the Philippine standards context. IVS supplies the international framework incorporated into the relevant national edition. Their relationship must be established through the national publication and adoption instrument, rather than through an assumption that two abbreviations mean exactly the same document.

The official BLGF publication identifies PVS third edition as a 2025 edition incorporating IVS 2025 and Philippine guidance. Its introductory Department Order is No. 022.2025. The earlier PVS second edition is a 2018 publication incorporating IVS 2017. These edition labels are important when reading older reviewers. [4]

In this lesson, the IVS 2025 structure and selected operative provisions are checked against the accessible IVSC standards text. The national adoption title and selected Philippine guidance headings are identified from official BLGF publication extracts. Use the complete national publication and adoption order when resolving a specific Philippine clause or effectivity question.

The difference matters in a case. If a reviewer explains an old clause accurately, that explanation may still have educational value. But it cannot establish the title or number of the corresponding requirement in the present edition. The content, numbering and national guidance must be checked independently.

A national rule is more than an international citation

Consider a fictional appraisal for a Philippine government transaction. A report states only that it follows global practice. The reader still needs to know which national standards and relevant legal provisions the appraiser applied. International terminology alone does not answer that question.

Now consider a private investor who asks for an international standards statement. The appraiser should clarify which edition is intended and how the work also addresses the jurisdiction in which the property and assignment sit. The client’s preference cannot remove a relevant Philippine legal requirement.

A useful study habit is to write two separate entries: national source and international edition. If the national source incorporates the international edition, record that relationship. If a later international edition is being considered, determine whether and how it has been adopted nationally before treating it as automatically controlling Philippine work.

This is an application of source discipline. It is not a demand to insert every law ever enacted into a report. Identify the provisions that materially affect the actual assignment and explain their effect where necessary.

Guidance should be read within the adopted publication

Philippine guidance addresses situations encountered in the national setting. A guidance note can help the learner recognize the relevant inquiries for a property type or public valuation process. Its operative wording and status should be read with the adopted standards and applicable law.

Avoid the shortcut that anything called guidance is optional in every circumstance. A publication title does not settle the effect of a particular instruction. The adoption instrument, applicable legal requirements and the clause itself can matter. Conversely, an illustrative example should not be turned into a universal statutory rule.

Suppose a fictional agricultural-property chapter discusses irrigation, access and productive use. Those topics help organize an inquiry. They do not justify inventing a fixed irrigation premium for every farm. The appraiser still needs property-specific and market-supported evidence.

The same distinction applies to a hotel. Guidance can direct attention to real property and operating components. It does not mean that the value of a hotel business automatically equals the value of the land and building. Define the subject interests before selecting the relevant material.

4 Check editions and dates before applying a clause

Four dates answer different questions

The publication date tells you when a standards edition was issued. The effective date tells you when that edition becomes operative under its stated terms. The valuation date identifies the point in time to which the value opinion relates. The report date identifies when the conclusion is issued.

These dates need not coincide. A report written in November can express a value at the previous June date. A standards edition published in one year can become effective in the next. A file downloaded today can contain an older publication.

IVS 2025 was published on 31 January 2024 and applies to valuations performed from 31 January 2025, with early adoption permitted. Retrospective work calls for documenting the editions relied upon and applicable at the historical valuation date. [5, IVS 100 section 50]

The date distinction prevents a common error: choosing a standard solely because the valuation date is old. The timing of the work and the historical measurement context both need attention. Record the editions and the applicable requirements rather than hiding the issue behind one year label.

Date	What it tells you	Original example
Publication	When a document is issued	A standards publisher releases an edition in 2024
Effectivity	When the edition operates	The edition states effectiveness in 2025
Valuation	When the opinion applies	A property is valued as at 30 June 2023
Report	When the opinion is issued	The retrospective report is issued in October 2026

A new publication can contain a future effective standard

IVSC's January 2026 exposure-draft announcement describes proposals for an edition planned for publication in January 2027 and effectiveness in January 2028. At this lesson's review date, those dates describe the announced standards-development timetable. They do not establish that the final document has already been issued or that the proposals are effective. [6]

For a 2027 examination candidate, the practical response is to keep an update record. Monitor the final international publication, any Philippine adoption and the PRC examination materials. Do not silently replace the effective 2025 structure with the contents of an exposure draft.

Publication, effectiveness, early adoption and national adoption are separate checks. If a final future edition later permits early adoption, that provision must be read in the final text. A learner should not infer early-adoption permission merely because a draft is publicly accessible.

An examination question may explicitly supply a future edition or hypothetical rule. Answer within that stated assumption. In an ordinary question with no such direction, do not treat a proposed change as an effective requirement. State the edition in your study notes so that updates can be made accurately.

Build a short edition record

For each standards source, retain the official title, publisher, edition, issue or publication date, effective date and the relevant adoption instrument. Add the source location and the date you checked it. These fields allow you to distinguish a new download from a new rule.

Keep a separate entry for uncertainty. If you have only identified an official publication title but have not read the operative effectivity clause, say what remains to be checked. Do not turn a filename, upload month or social-media announcement into a legally established effective date.

The month in a website path often indicates upload or filing activity. It can help you find a document, but it does not necessarily identify publication or effectivity. The BLGF PVS third-edition online link contains a 2026 upload path while the publication is described as a 2025 edition. The edition label and the upload path answer different questions.

Your study record can be simple. One page per major source is sufficient if it identifies the version and the topics for which you use it. Add corrections to the record instead of leaving contradictory notes in different notebooks.

5 Read the strength and status of a requirement

Must and should do different work

In the checked IVS glossary, must marks a mandatory action or procedure. Should creates an expectation of compliance unless sufficient alternative action can be demonstrated. Treating should as a free choice to ignore the topic misreads that expectation. [7]

Read the whole provision. Identify the person responsible, the action, the condition that triggers it and any permitted alternative. A word has little practical meaning if it is separated from the sentence in which it operates.

For an original training exercise, suppose a fictional office policy says, “The analyst must record the inspection date.” The analyst cannot replace that record with a statement that the building looked recent. If another fictional policy says a second review should occur unless an equivalent control is demonstrated, the alternative needs an explanation and evidence.

Those fictional policies illustrate how obligation words function. They are not quotations from IVS or statements that every appraisal requires a specific number of reviewers. Always return to the actual clause when deciding what a real standard requires.

Conditions and relevance limit the application

A clause may apply to a particular asset, purpose or circumstance. Before applying it, ask whether the stated condition is present. An instruction concerning a valuation review should not be used as if it were the entire reporting rule for a new valuation.

Likewise, a topic can be relevant without requiring the same adjustment in every case. Flood exposure may affect rental demand, insurance cost or marketability. The appropriate treatment depends on the property and evidence. A general concern does not authorize an arbitrary deduction.

When a question uses the words if applicable or where significant, identify the facts that make the matter applicable or significant. A weak answer repeats the words. A strong answer explains the connection to the assignment, such as an unresolved access restriction affecting the rights being valued.

Do not infer a rule from the absence of a word in one paragraph. Related provisions, definitions and appendices may need to be read together. Your clause check should record the connected source rather than relying on an isolated screenshot.

Binding sources and explanatory material differ

A statute, an applicable regulation, an adopted standard, a professional obligation and a contractual requirement can each affect an engagement. Their force arises from their respective authority and scope. A training slide or reviewer may help explain them, but the slide does not acquire the status of the underlying rule.

An exposure draft invites consideration of proposed changes. A red-line edition helps the reader see revisions. A basis-for-conclusions document explains why a standards body took an approach. These documents have useful purposes, but those purposes should not be confused with the operative status of the final effective text.

For example, a red-line file may retain struck-through wording to show what changed. Copying the crossed-out sentence into current notes can reverse the intended lesson. When you use a comparison file, confirm the final wording in the clean final edition.

A reviewer's statement that an appraisal report must contain exactly a given number of pages is not established merely because it appears next to a genuine standards heading. Ask for the actual authority. Reporting requirements concern sufficient information and the assignment; a particular client may additionally prescribe a form.

Document type	Study treatment
Applicable law or regulation	Identify authority and operative provision
Final effective standards edition	Read the relevant requirements and conditions
National adoption order	Establish the prescribed edition and its application
Guidance in an adopted publication	Read with the adoption and relevant operative wording
Exposure draft	Track proposals without treating them as effective rules
Red-line or explanatory paper	Use for comparison or explanation and check final wording
Reviewer or training presentation	Use as a learning aid and verify important claims at source

6 Navigate the IVS 2025 structure

General Standards organize the work

The checked 2025 edition presents seven General Standards, numbered IVS 100 to IVS 106. Learn their titles with the edition attached. Their order helps you move from the framework and engagement to the analysis and its written explanation. [5, structure; 7]

The table below is a navigation aid. The questions in its right-hand column are original study prompts, not a reproduction of the standards' requirements or a complete compliance checklist. Use the table to find the chapter that deserves closer reading.

IVS 2025 chapter	Title	Original study prompt
100	Valuation Framework	What supports the quality and integrity of the work
101	Scope of Work	What assignment did the client and appraiser agree
102	Bases of Value	What kind of value is being estimated
103	Valuation Approaches	How does the analysis develop a value indication
104	Data and Inputs	What information is relevant and selected for use
105	Valuation Models	How does the calculation implement the method
106	Documentation and Reporting	What explains and records the work and conclusion

Locate the problem before searching for a formula

An instruction that merely says "value the site" raises an assignment-definition problem. Start with scope and clarify what is being valued. A question about whether an estimate represents market value or a particular buyer's worth raises a basis-of-value problem.

A workbook that mixes cash-equivalent sales with subsidized instalment prices raises an evidence problem. A model that calculates a perpetual income from a temporary lease raises a calculation and method problem. A report that hides the condition assumed for the property raises an explanation problem.

The categories can overlap. If a restricted scope prevents essential research, scope, data and reporting may all need attention. The navigation table directs the first inquiry; it does not allow the appraiser to stop after checking one heading.

In an examination question, the best answer may be the first corrective action. If the property interest is unidentified, asking for clarification can precede the calculation. If the problem is a formula referencing the wrong input, the correction may be analytical. Read what the question asks you to decide.

Asset Standards add the property context

The 2025 Asset Standards include IVS 400 for Real Property Interests and IVS 410 for Development Property. IVS 300 addresses Plant, Equipment and Infrastructure. Other chapters address businesses, intangibles and additional asset or liability classes. Select the relevant chapters by the subject of the assignment, not simply by the building's physical appearance. [7]

A vacant ownership interest in a residential parcel raises real-property questions. A partially completed project may also raise development-property questions. An industrial site with production machinery may require a careful separation of real property and equipment components.

A hotel assignment could concern only a land and building interest or could involve operating-business components. The word hotel does not settle the scope. The appraiser needs to determine what interests and assets the client wants valued and how the components relate.

The Asset Standard does not replace the General Standards. The assignment still needs a scope, a basis, relevant evidence and an explanation. Treat the asset chapter as an additional lens for the subject rather than a separate route that avoids the general framework.

Appendices belong to the edition

The 2025 architecture also includes appendices dealing with specified concepts, methods and considerations. The fact that material is placed in an appendix does not establish that it can be ignored. Read the edition's statement of compliance and the connection between the main provision and the appendix.

An appendix may help interpret a concept that a short main paragraph introduces. A learner who reads only the heading can miss the conditions under which the concept applies. In your notes, record the connected appendix when it materially explains the issue.

At the same time, reading an appendix does not mean every example in it describes every property. The learner still needs to distinguish a definition, a requirement, a consideration and an illustration. The strength of the wording and the relevance to the assignment matter.

Avoid transferring an old number into a new edition

Older study materials may associate reporting with IVS 103 or bases of value with IVS 104. Those labels can reflect a different historical structure. In the 2025 structure used here, IVS 103 concerns Valuation Approaches, IVS 104 concerns Data and Inputs, and IVS 106 concerns Documentation and Reporting.

This does not prove the older explanation was wrong when written. It means the numerical reference is incomplete without the edition. Search by topic and verify the current chapter rather than replacing every old number mechanically.

For example, a note marked "104 market value" should trigger a source check. Find the edition that produced the note, then locate the equivalent topic in the edition you are studying. Do not conclude from the number alone that the topic has disappeared or that the new chapter contains the old wording.

Write a complete short reference such as "IVS effective 31 January 2025, IVS 100, section 50." That form identifies the edition, chapter and location. Your reference should be precise enough for another learner to find the same passage.

7 Apply the framework to a fictional assignment

Define the subject before selecting evidence

The fictional Harana Development Corporation owns a 2,000-square-metre site with an unfinished three-storey commercial building. Its finance team requests a value for a financing discussion. The first task is to clarify whether the requested opinion concerns the present property, a future completed property or a different measurement objective.

The subject includes more than a street address. The interest, relevant leases or other rights, physical condition and date can change the question. If a tenant has a current lease, the appraiser should not silently analyze the building as vacant and unencumbered simply because a model template has no lease field.

In this original exercise, the client confirms that it wants the ownership interest in the property as it stands at 30 September 2026, subject to the supplied existing rights. That clarification gives the learner an assignment to analyze. It does not establish the legal validity of those rights; that still needs relevant verification in practice.

The model can now be organized around the confirmed subject. The question becomes what evidence and analysis support the opinion for that interest and date. A projected price for a future finished project may be relevant to one method, but it is not automatically the value of the present unfinished property.

Separate the basis from the approach

The basis tells you what value concept the assignment seeks. The approach tells you how an indication is developed. Selecting an income approach does not by itself identify market value, investment value or an accounting measurement.

Suppose a specific investor uses a lower required return because it already operates the adjacent property and expects operational savings. A calculation using that investor's objectives may answer an investment question. It should not be relabeled market value without considering whether the assumptions represent the relevant market.

For an original illustration, supplied annual income of PHP 1,200,000 capitalized at a supplied market rate of 8% indicates PHP 15,000,000. The same income capitalized at an investor's supplied 6% rate indicates PHP 20,000,000. The arithmetic difference is PHP 5,000,000. It does not establish that either rate is appropriate for a real asset.

The exercise shows why the assumption and measurement objective matter. Both calculations use an income technique. Their inputs answer different questions. In a standards case, identify the basis before defending the formula.

Distinguish the approach method and model

A market approach organizes an inquiry around market evidence. A comparable-sales method is a specific way to develop that inquiry. A workbook containing the records and adjustments is an implementation of the method. These are related levels of analysis.

An income approach can use a discounted cash-flow method. A spreadsheet with dated rents, expenditure and discount factors implements that method. The spreadsheet's existence does not establish that the cash flows, timing or rate are appropriate.

For a cost inquiry, a construction estimate is one possible source of cost information. Turning cost information into a value indication can require consideration of the land interest, depreciation, obsolescence and the utility sought by market participants. A bill of quantities is not itself a complete property appraisal.

Learn to explain where an error occurs. If a model treats an annual rate as monthly, the implementation is defective. If the supplied income is not attributable to the interest being valued, the problem reaches the method and assignment. Changing a spreadsheet formula alone may leave the main problem unresolved.

Identify assumptions and limitations clearly

An assumption fills a specified premise for the analysis. A limitation constrains the work or available information. These have different effects. A statement that the appraiser could not inspect the interior is a limitation; it does not establish that the interior is in excellent condition.

For the Harana exercise, suppose the model assumes that a current structural condition report is accurate. If the client instead asks for an opinion on a building assumed completed despite its unfinished state, that premise changes the condition being analyzed. It deserves explicit treatment rather than a quiet switch in the calculation.

Whether a premise is a special assumption depends on its relationship to the actual facts and the relevant standards definition. Do not use the term merely to make a weak claim sound professional. Lesson 9 develops the distinction and engagement wording in more detail.

A limitation may be acceptable for one intended use but prevent a supportable opinion for another. State what work was possible and assess its effect. A disclaimer cannot manufacture evidence or remove the appraiser's obligation to evaluate whether the assignment can be completed appropriately.

8 Evidence models and professional judgment

Preserve the connection from record to conclusion

Return to Lesson 7's fictional land sales. Record H has a supplied commercial-corner use profile, while A to G concern residential lots. That difference was relevant to the analysis group. The same reasoning belongs in an appraisal evidence file.

For an original standards exercise, suppose the file retains all eight records but uses A to G for a residential analysis. The reader should be able to understand that decision. If H disappears without a reason, the analysis becomes harder to evaluate even when the resulting average is mathematically correct.

Evidence can be transformed before it becomes an analytical input. A price may be converted to a unit rate or adjusted for a supported difference. Retain the source amount, conversion and reason so that the change can be followed. A clean number in a final table should not conceal unresolved facts.

The purpose of this record is to explain the judgment. It helps another reader see how the evidence supports the conclusion. The learner should not mistake a long attachment list for an explanation of why particular inputs were selected.

A model can be useful and still be unsuitable

Suppose a fictional subscription service predicts PHP 9.6 million for a building. Its training records concern vacant residential lots, while the subject is leased commercial property. The output may be produced instantly and consistently. Those qualities do not make the model appropriate for the assignment.

The inquiry should address what the model was designed to estimate, the data on which it relies and the circumstances in which it performs adequately. A model result needs interpretation. An unsuitable subject or unsupported input can matter more than the number of decimal places in the output.

A basic manual model can also be inappropriate. A perpetual capitalization model applied to a three-year temporary income stream illustrates the point. The problem is the relationship between model and cash flow, even if every arithmetic operation is correct.

The IVSC's public explanation of the 2025 changes emphasizes the role of competent professional judgment when automated models or AI are used. Automation does not establish compliance on its own. [8]

Test a numerical conclusion through its inputs

In an original teaching model, annual stabilized income is PHP 900,000 and the supplied capitalization rate is 9%. The calculation produces PHP 10,000,000. If the analyst enters 9 rather than 0.09, the output becomes PHP 100,000. That unit-entry error can be detected by checking the expected scale.

If the model instead uses PHP 900,000 of revenue before operating expenses as though it were net income, correcting the rate entry does not solve the income definition problem. The inputs must answer the intended valuation question.

A sensitivity exercise can show how dependent the result is on an assumption. With the same supplied net income, an 8% rate indicates PHP 11,250,000 and a 10% rate indicates PHP 9,000,000. These are alternative teaching calculations. They do not establish a justified valuation range for an actual property.

When interpreting sensitivity, explain what was changed and what was held constant. A range created by arbitrary assumptions is a range of model outputs. It becomes a supportable appraisal conclusion only through the relevant evidence and reasoning.

Address environmental and other relevant conditions through evidence

An environmental, social or governance label does not supply an automatic premium or discount. For property valuation, identify the actual mechanism through which a relevant condition can affect market behavior, costs, income, restrictions or risk.

Suppose two otherwise comparable fictional buildings have different electricity efficiency. If tenants pay the electricity bills, the effect on the owner's income may differ from a lease under which the owner bears those costs. An energy-saving figure alone does not establish the same owner benefit under both leases.

For another original case, supplied annual net operating income is PHP 1,000,000. If independently supported assumptions establish that an additional annual insurance cost of PHP 100,000 falls on the owner, modeled income becomes PHP 900,000. At a stipulated 10% rate, the indications are PHP 10,000,000 and PHP 9,000,000. The model shows the stated cost effect; it does not prove a universal hazard discount.

Avoid counting one effect twice. If an increased operating cost is already deducted in income, applying an additional unexplained deduction for the same cost can distort the result. A separate risk adjustment may still be relevant, but it needs a distinct supported reason.

9 Jurisdictional requirements and compliance statements

Determine what actually conflicts

IVS prioritizes conflicting applicable jurisdictional requirements, with their effect explained, documented and reported. A client preference has no equivalent authority; other deviations prevent compliance. [5, IVS 100 section 40]

For a case, first identify a real authoritative requirement. A statute, regulation or applicable legal measurement instruction is different from a client saying that it would prefer a higher number or a shorter investigation. Do not label a preference a jurisdictional conflict.

Next determine whether there is an actual conflict. Two sources may impose compatible requirements. A national rule requiring information about the appraiser's license can coexist with an international standards framework for the analysis. Additional information does not necessarily contradict the international standard.

If a real conflict affects the work, explain what the local requirement changes and why. A blanket statement that local law applies leaves the reader unable to understand the consequence. The relevant authority and the significant difference belong in the analysis and explanation.

Agreement does not cure insufficient work

A fictional client tells the appraiser to use only the client's preferred sale and not investigate any other evidence. The appraiser needs to assess whether that restriction allows the required work for the intended use. Client consent does not establish that the evidence is sufficient.

Another client asks for a short report because its investment committee reads summaries. A short form can be a communication choice if it still provides an adequate account of the work and the relevant requirements are met. Brevity is not automatically the same as insufficient investigation.

Separate restrictions on research from restrictions on presentation. A complete analysis can be reported concisely, while an extensive report can describe poor work. The question is whether the assignment and the communicated conclusion are supportable under the applicable requirements.

An unsupported compliance statement is especially misleading when the recipient relies on it to judge the quality of the work. The appraiser should evaluate the claim before issuing the report rather than inserting standard boilerplate from an old template.

Explain the response to a restriction

In a study case, the appraiser can clarify the client's need, seek additional information or propose a scope that allows appropriate work. If the restriction remains incompatible with the required outcome, the assignment cannot be rescued by changing the cover-page wording.

The response depends on the facts. A missing record may be obtained from another source. An inspection limitation may be explained and assessed. A demand to predetermine the value raises a different professional problem and should not be treated as a minor missing-document issue.

When a question asks what the appraiser should do next, choose an action that addresses the defect. Do not jump directly to a value amount when the subject, basis or evidence remains unclear. Clarification can be the most professional response.

A restriction concluded to affect IVS compliance prevents a compliance claim. Assess its effect; a disclaimer does not settle the issue. [5, IVS 106 paragraph 30.08]

10 Reporting documentation and review

The reader needs to understand the conclusion

A written appraisal should make the subject and the conclusion understandable. A recipient who sees only PHP 18 million cannot know whether the amount concerns the present ownership interest, a future completion scenario or a particular investor's objectives.

In the Harana exercise, a clear opening might identify the property interest, intended purpose and valuation date before presenting the conclusion. The body would explain the relevant evidence and assumptions. The precise wording depends on the actual engagement; the example is a learning model rather than a prescribed report form.

An abbreviation can save space only when the reader understands it. A table headed FMV with no basis definition or explanation of its source can create ambiguity. Do not assume that market value, fair value, assessed value and investment worth are interchangeable.

The report date should not silently replace the valuation date. A retrospective value is an opinion at the historical date, issued later. The later report date tells the recipient when the work was communicated, while the historical date defines the measurement point.

The work file supports the communication

The work file can contain research, calculations, correspondence and the reasoning behind decisions. The report communicates the assignment and conclusion to the intended recipient. Their functions overlap but are not identical.

Suppose a report refers to a comparable adjustment without explaining it, and the work file contains only a final adjusted number. The missing reasoning is not cured by the existence of two separate files. The reader needs a coherent explanation, and the appraiser needs a record of the work supporting it.

For an original example, retain the evidence that a sale had special payment terms, the financial conversion applied and the reason for the chosen rate. The final report may summarize the result, but the underlying analysis should remain intelligible. Keeping only the polished final table loses the path from record to input.

A work file should be organized around the engagement. A source list with no link to the selected inputs can be as unhelpful as an unsorted pile of documents. Date the key records and identify the decisions they support.

Do not invent a universal retention period

IVS connects retention to applicable legal, regulatory, authoritative or contractual requirements, rather than one universal period. [5, IVS 106 paragraph 20.04]

If a question provides a specific applicable retention rule, use it. If it does not, avoid guessing a fixed period because another profession uses that number. Determine the requirement governing the particular work.

Retention also involves the usability of the record. A spreadsheet stored without its source data, relevant version or explanation may be difficult to interpret later. In a professional inquiry, preserve what is needed to understand the work, subject to the applicable confidentiality and information requirements.

These recordkeeping principles matter to electronic reports as well as paper reports. A PDF image of the final number does not preserve the entire analysis. Keep the relevant working record in a form that remains accessible under the applicable requirements.

A review has its own assignment

A review may examine a valuation process, the reasonableness of the value, or both. An arithmetic check is a narrower activity than a reasoned value review. The scope should establish what the reviewer is being asked to assess.

For an original exercise, a reviewer recalculates a cost table and confirms PHP 14 million. That check does not establish that the cost evidence is current, that depreciation has been appropriately addressed or that the resulting property opinion is reasonable.

If the reviewer gives a new value opinion, the reader needs to understand the basis of that opinion and the work supporting it. Do not disguise a new appraisal as a routine proofreading exercise. The standards source should be checked for the type of review and reporting involved.

The Philippine publication identifies a guidance note on reviewing valuations. Use it alongside the relevant General Standards and the defined review scope. The detailed review lesson later in the curriculum develops the procedures more fully.

11 Find the relevant Philippine guidance

Use a guidance topic to direct the inquiry

The national publication includes Philippine guidance on specialized subjects. Official publication extracts identify mass appraisal, agricultural property, valuation review, extractive industries, hazardous substances, compulsory acquisition and timberland or woodlands among these topics. The map below directs further reading; it does not reproduce their operative requirements. [4]

The questions in the right-hand column are original prompts for the learner. They indicate what a careful inquiry may need to address, not a mandated method or adjustment percentage. Read the full guidance and applicable law when developing an actual opinion.

Guidance location	Topic identified	Original inquiry prompt
PVS GN 100	Mass appraisal for property taxation	How are comparable groups and many properties analyzed
PVS GN 200	Agricultural properties	What rights productive conditions and access affect the farm
PVS GN 300	Reviewing valuations	What part of another appraiser’s work is being reviewed
PVS GN 400	Extractive industries	Which resource rights and property components are included
PVS GN 600	Hazardous and toxic substances	What verified condition and market effect need investigation
PVS GN 800	Compulsory acquisition	What legal interest measurement and acquisition rules apply
PVS GN 900	Timberland or woodlands	What rights land and timber components are being analyzed

Recognize additional specialized topics

Historic properties and trade-related property also deserve specialized study. When reading the complete national publication, check the corresponding guidance and its status. Do not assume that an older list is exhaustive for the present edition.

For a fictional historic building, the appraiser may need to understand restrictions, condition, permitted adaptation and the evidence for its market. A building’s age alone does not establish a heritage premium. A restoration cost estimate also does not automatically establish the value added by the work.

For a fictional operating hotel, identify whether the assignment includes only a real property interest or also equipment and a business component. The supplied hotel revenue is not automatically rent attributable to the real property. A trading operation and its premises can raise different valuation questions.

These examples help you recognize the scope issue before calculating. They do not replace the specialized guidance or establish a fixed valuation method. Record the relevant chapter and obtain the evidence appropriate to the defined subject.

Mass appraisal has a defined purpose

A system that estimates values for many properties needs a consistent property inventory and an analysis of relevant market groups. Its purpose and legal setting matter. A broad model does not remove the need to identify unusual rights, property conditions or data issues.

For an original teaching example, a local authority's fictional dataset groups ordinary serviced residential lots. An industrial parcel with equipment appears in the same file. Before applying the residential model, the analyst needs to assess whether the parcel belongs to that group and what separate treatment its components require.

The mistake would be to treat every row as comparable simply because the software accepts the same area field. A statistically tidy file can conceal a classification error. Lesson 7's evidence reasoning therefore supports the study of mass appraisal as well as individual appraisal.

In a government case, the legal SMV process and the distinction between valuation, assessed value and tax policy remain important. A proposed model output should not be described as an approved and effective statutory schedule without confirming the required steps.

Compulsory acquisition requires the relevant legal inquiry

A public acquisition can raise questions about the property interest taken, the relevant date and the applicable compensation rules. A willing-buyer-and-willing-seller comparison alone may not answer every legal issue in the acquisition process.

For an original study situation, a road project takes a strip from a larger parcel. The analysis may need to distinguish the acquired interest from the property that remains and consider the applicable law on the effects of the taking. Do not assume that multiplying strip area by an unsupported unit rate resolves the entire case.

If an examination question supplies a legal compensation rule, use the rule within its stated facts. If it asks about standards navigation, identify the relevant Philippine guidance and legal source before selecting a method. Detailed compensation calculation belongs to the later compulsory-acquisition coverage.

The same principle applies to hazardous conditions and extractive rights. Identify what needs investigation and where professional assistance or a legal determination is relevant. An appraiser's value opinion should not be confused with a scientific diagnosis or a decision granting a resource right.

12 A practical standards reading method

Read the case in a fixed sequence

First identify the task. Is the question about a new valuation, a review, a tax assessment or professional authority? Then identify the property interest, intended use and date. These facts tell you which sources and chapters may be relevant.

Next locate the applicable edition and source. Check whether the document is final, effective, nationally adopted or merely proposed. If the question provides a hypothetical rule, distinguish that assumption from the real source record.

Read the complete provision and connected definitions. Identify the action and the facts that trigger it. Then explain what the appraiser should do, why the action addresses the defect and whether more information is necessary.

End with a response proportionate to the question. A source-status question may need a clear classification. An assignment case may need clarification before analysis. A calculation case may need a numerical answer with the assumption identified.

Keep a clause reference record

Use one entry for each important study issue. Record the edition, chapter, clause location and a short explanation in your own words. Add the original case that helped you understand it. This makes the notebook useful for application rather than only recall.

For example, an edition entry can record IVS 2025, IVS 100 section 50, followed by a note that publication and effectiveness differ and retrospective work requires edition documentation. The note should direct you back to the source instead of pretending to be the full clause.

An entry about a scope restriction can record the relevant reporting provision and a fictional case in which a client forbids essential verification. Explain why consent and a disclaimer do not establish adequacy. The example gives the rule a practical meaning.

Avoid writing a paragraph that looks like a quotation when it is your own interpretation. Mark it as a study explanation. If you retain a short quotation for personal study, identify it accurately and keep it distinct from your own words.

Use errors to guide revision

After a practice question, identify whether your error involved authority, edition, date, obligation wording or application to the facts. Revisit the corresponding source. Repeatedly rereading all standards headings can be less useful than correcting the particular misunderstanding.

If you chose a client preference over an applicable legal requirement, revise the source relationship. If you confused a report date with a valuation date, reconstruct the timeline. If you memorized an old chapter number, update the edition record and find the topic by title.

For a quantitative error, check units and the input definition before recalculating. A capitalization result can be wrong because of a percentage entry or because the supplied amount is revenue rather than net income. The corrective action differs.

13 Ten worked standards cases

Attempt the question before reading the solution. All facts and numerical assumptions are fictional. A reference to a standards chapter is a starting point for checking the operative text, not a complete report-compliance determination.

Case 1 Distinguish professional authority from standards knowledge

Question: A construction estimator has studied a valuation manual and wants to offer signed real estate appraisal services for a fee. Does knowing IVS alone establish authority to practise?

Solution: No. The legal and professional qualifications for real estate appraisal practice must be addressed under RESA and the applicable professional requirements. Standards knowledge helps the work; it does not grant a license.

Reasoning: The question concerns authority to offer the service. A method or standards citation cannot substitute for the relevant professional capacity. RESA section 3 is the starting source.

Case 2 Identify the national standards source

Question: An appraisal trainee writes that IVSC directly approves every Philippine standards adoption. Which source relationship should be corrected?

Solution: IVSC develops the international framework. RPVARA identifies national PVS based on IVS and approved by the Secretary of Finance, with the BLGF performing its statutory valuation functions.

Reasoning: Keep the international standard setter distinct from the Philippine adoption and implementation roles. RPVARA sections 4, 5 and 13 provide the legal source.

Case 3 Separate an effective edition from a proposal

Question: A reviewer treats the January 2026 exposure-draft proposals intended for the 2028 edition as the effective rule for an ordinary October 2026 case. The question supplies no early-adoption or hypothetical instruction. Is this justified?

Solution: No. A proposal and its intended future timetable do not establish an effective requirement. Use the applicable effective text and national requirements, while tracking the proposal separately.

Reasoning: At the review date, the IVSC announcement describes a planned January 2027 publication and January 2028 effectiveness. Confirm the final publication when it occurs rather than assuming the draft is final.

Case 4 Read a retrospective timeline

Question: A report is prepared in October 2026 with a valuation date of 30 June 2023. Must the appraiser automatically apply only the standards edition used in 2023?

Solution: No automatic choice follows from the valuation date alone. Check the timing and applicable requirements of the work, and document the edition relied upon and the edition applicable at the historical valuation date.

Reasoning: The report date and historical valuation date answer different questions. IVS 100 section 50 directs edition documentation for retrospective work. The jurisdictional and assignment requirements still need checking.

Case 5 Correct an edition-specific reference

Question: A learner's old notebook says that IVS 104 covers bases of value. The learner is now studying the IVS edition effective 31 January 2025. Where should the topic be located?

Solution: In the 2025 structure, IVS 102 is Bases of Value. IVS 104 is Data and Inputs. Establish which edition produced the old note before retaining its numerical reference.

Reasoning: Topic titles and edition dates make a reference usable. A historical number is not a permanent identifier across revisions.

Case 6 Diagnose a client restriction

Question: A client demands an IVS compliance statement but prohibits verification of a disputed access right that materially affects the interest being valued. The appraiser concludes the restriction prevents the required work. Does client agreement cure the problem?

Solution: No. Seek a scope and evidence that address the material issue. If the restriction remains incompatible with compliance, do not claim IVS compliance merely because the client agrees or signs a disclaimer.

Reasoning: A client restriction is not an authoritative jurisdictional requirement. Its effect on the assignment and compliance must be assessed. IVS 100 section 40 and IVS 106 paragraph 30.08 direct the source inquiry.

Case 7 Distinguish a market assumption from an investor assumption

Question: A teaching property has stipulated annual net income PHP 1,200,000. A supplied market rate is 8%, while a particular investor uses 6%. Compute both amounts. Does using the same income technique make them the same value concept?

Solution: At 8%, the indication is PHP 15,000,000. At 6%, it is PHP 20,000,000. The difference is PHP 5,000,000. The shared technique does not make the underlying measurement objectives identical.

Reasoning: The basis and input assumptions need to be identified. A particular investor's rate should not automatically be substituted into a market-value question. The rates here are teaching assumptions, not market evidence.

Case 8 Evaluate an automated result

Question: An automated service estimates a leased commercial building using only vacant residential-lot data and labels the result standards compliant. What is the first substantive concern?

Solution: Assess whether the model and its data are suitable for the subject interest and intended use. The automatic calculation and label do not demonstrate that relationship.

Reasoning: Professional judgment is necessary. The learner should investigate scope, evidence and model suitability rather than accept the number because it was generated consistently.

Case 9 Recognize the scope of a review

Question: A reviewer checks only additions and multiplications in a cost worksheet. The reviewer then says that the property's market value has been independently confirmed. What is missing?

Solution: An arithmetic check does not by itself establish a reasoned opinion on the value. The review scope and the evidence supporting any value conclusion need to be identified and assessed.

Reasoning: The correctness of the calculation is narrower than the appropriateness of its inputs, method and conclusion. A new value opinion requires its own support.

Case 10 Separate market value from assessed value

Question: The exercise supplies market value PHP 8,000,000 and an assessment level of 20%. Calculate assessed value and explain whether the percentage creates a new market-value opinion.

Solution: Assessed value is PHP 8,000,000 × 0.20 = PHP 1,600,000. The percentage is a supplied assessment assumption, not a valuation discount or a verified rate for a real property.

Reasoning: RPVARA's definition separates market value from assessed value. Applying an assessment level answers the stated assessment question; it does not prove what the property would exchange for in the market.

14 Standards reference worksheet

Use an official standards copy for the clause checks. Complete the explanations on a separate sheet. This worksheet is an original study aid, not a prescribed professional report form.

1. Record the national publication title, publisher, edition and adoption instrument for PVS third edition. Separate its edition label from the upload month in a website address. Identify the effectivity detail that must be checked in the actual order.

Your response: _____

2. For IVS 2025, record the publication and effective dates. Explain why a retrospective valuation date does not alone settle the edition used for work performed later.

Your response: _____

3. Classify a statute, a final effective standard, an exposure draft and a red-line comparison document. Explain how you would use each when answering a case.

Your response: _____

4. Locate the 2025 chapters for scope, bases of value, data and inputs, valuation models and reporting. Explain why an old clause number needs its edition.

Your response: _____

5. Read IVS 100 section 40. Explain the difference between an applicable jurisdictional requirement and a client request to omit material work.

Your response: _____

6. Read IVS 106 paragraphs 20.04 and 30.08. Explain the retention issue and the effect of a restriction on a compliance statement. Avoid inventing a universal retention period.

Your response: _____

7. For the fictional unfinished Harana property, write four questions needed before accepting the project model as a value indication. Address the interest, date, condition assumed and measurement objective.

Your response: _____

8. Write 100–150 words explaining how RESA, RPVARA, PVS and IVS relate, and why neither a professional license nor an automated report template establishes that an assignment is properly completed.

Your response: _____

15 Review and essential distinctions

Distinction	What to remember
Professional authorization and standards	Permission to practise and quality of the assignment are different questions
PVS and IVS	Trace national adoption and the international edition separately
Publication and effectivity	A newly issued document may become effective later
Valuation and report dates	The measurement date and issue date need not coincide
Final standard and exposure draft	A proposal does not establish an effective requirement
Must and should	A mandatory action differs from an expectation allowing a sufficient alternative
General and Asset Standards	The asset context adds to the general framework
Basis and approach	The value concept differs from the route used to estimate it
Model output and appraisal opinion	A calculated result requires suitable inputs and professional reasoning
Jurisdiction and client preference	An authoritative local requirement differs from a requested shortcut
Market and assessed values	A stipulated assessment level changes the taxable amount rather than the market concept

Use these checks in a case

- Identify the task and property interest before choosing a method.
- Check the source authority and edition.
- Separate publication effectivity valuation and report dates.
- Read the complete provision and relevant connected material.
- Explain how the facts make the issue applicable.
- Assess whether the evidence and model answer the stated question.
- Communicate the important assumptions and limitations.
- Claim compliance only when the work supports the claim.

Lesson 9 develops assignment scope and bases of value in greater depth. Carry forward the source and edition discipline from this lesson when drafting the engagement and choosing the measurement objective.

16 Original practice test

Choose one best answer. Suggested time: 35 minutes. The 20 items are original learning exercises. Use the edition and assumptions stated in the question; they are not actual or recalled PRC examination items.

1. A person understands the IVS framework but has not established the professional authority required to offer real estate appraisal services in the Philippines. Which statement is best?

A. Standards knowledge grants professional registration

B. An automated template supplies professional authority

C. RESA and the applicable professional requirements still need to be satisfied

D. Authority is established by the size of the property

2. Under RPVARA, PVS is best understood as which of the following?

A. National standards for the Philippine setting based on IVS and approved by the Secretary of Finance

B. An informal list of asking prices

C. A professional license issued by IVSC

D. A tax rate fixed by a private client

3. Which institution develops the international standards framework referred to as IVS?

A. The client's lending committee

B. Every local Sanggunian independently

C. The individual report reviewer

D. The International Valuation Standards Council

4. For the checked IVS 2025 edition, which pair correctly states publication and effectiveness?

A. Published 31 January 2025 and effective 31 January 2024

B. Published 31 January 2024 and effective 31 January 2025

C. Published and effective 31 January 2028

D. Published and effective on the report date

5. At the lesson's October 2026 review date, an exposure draft describes proposed changes intended for effectiveness in 2028. What is the appropriate treatment?

A. Apply every proposal as the current rule

B. Assume the draft has already been nationally adopted

C. Treat public availability as proof of effectivity

D. Track the proposal and verify the final effective and adopted requirements

6. A valuation is prepared in 2026 with a historical valuation date in 2023. Which response best addresses the editions issue?

A. Use the website upload year as the governing date

B. Ignore standards because the value is historical

C. Check and document the editions relied upon and applicable at the historical date

D. Assume report date and valuation date are identical

7. In the checked IVS obligation wording, what does should imply?

A. Compliance is expected unless sufficient alternative action can be demonstrated

B. The topic may always be ignored

C. The action is identical to a client preference

D. No explanation is needed for any alternative

8. In the IVS 2025 structure, which chapter addresses Data and Inputs?

A. IVS 102

B. IVS 104

C. IVS 106

D. IVS 410

9. In the same structure, which chapter is the starting location for Documentation and Reporting?

A. IVS 103

B. IVS 101

C. IVS 106

D. IVS 400

10. How should an applicable Asset Standard be used with the IVS General Standards?

A. It cancels the need to establish the scope

B. It replaces all requirements on reporting

C. It applies only when the client chooses a higher value

D. It adds subject-specific requirements to the General Standards

11. A partly completed real estate project raises development-property questions. Which 2025 Asset Standard is especially relevant alongside the other applicable standards?

A. IVS 230 Inventory in every case

B. IVS 410 Development Property

C. IVS 106 as an Asset Standard

D. Only a construction cost manual

12. Which situation most clearly presents an authoritative jurisdictional requirement rather than a client preference?

A. An applicable legal provision prescribes a measurement for the stated purpose

B. A client requests a higher conclusion

C. A client dislikes the appraiser's evidence

D. A marketing team prefers a shorter deadline

13. The appraiser concludes that a client restriction prevents compliance with the required work. What is the best response to a demand for an IVS compliance statement?

A. Insert the statement after the client signs a disclaimer

B. Use a longer report to cure the restriction

C. Add more decimal places to the value

D. Seek an appropriate scope and avoid an unsupported compliance claim

14. An automated model uses vacant residential-lot data to value a leased commercial building. The output is numerically precise. What deserves first examination?

A. Whether the model and inputs suit the subject and intended use

B. Whether the output has enough decimal places

C. Whether the automated label is prominently displayed

D. Whether the chart uses professional colors

15. A teaching property has supplied annual net income PHP 900,000 and a supplied capitalization rate 9%. What is the arithmetic indication?

A. PHP 81,000

B. PHP 100,000

C. PHP 10,000,000

D. PHP 9,000,000

16. Two calculations use the same income technique, but one uses market-supported assumptions and the other a particular investor's objectives. Which statement is best?

A. Their identical technique proves identical value concepts

B. The basis and assumptions must still be distinguished

C. Both necessarily represent assessed value

D. The lower rate must always be the market rate

17. What is the appropriate retention-period conclusion from the checked IVS reporting provisions?

A. Determine the applicable legal regulatory authoritative or contractual requirements

B. All files must universally be kept for exactly three years

C. Client approval always permits immediate deletion

D. The property area determines the number of years

18. A reviewer confirms only the arithmetic in a worksheet and then claims to have independently confirmed the property's market value. What is the main problem?

A. The review can never use a worksheet

B. The arithmetic must necessarily be wrong

C. Every review must use a fixed page count

D. The check does not establish a reasoned value opinion under a defined review scope

19. Market value is stipulated at PHP 8,000,000 and the exercise supplies an assessment level of 20%. What is assessed value?

A. PHP 8,000,000

B. PHP 1,600,000

C. PHP 40,000,000

D. PHP 160,000

20. Which note is the most useful complete standards reference?

A. Clause 50 with no source

B. Current international rules with no edition

C. IVS effective 31 January 2025 IVS 100 section 50

D. The latest PDF I downloaded

17 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	B
2	A	12	A
3	D	13	D
4	B	14	A
5	D	15	C
6	C	16	B
7	A	17	A
8	B	18	D
9	C	19	B
10	D	20	C

1. C Standards knowledge concerns the quality of the work. Professional authority is a separate legal and regulatory question.

2. A RPVARA section 4 identifies the national standards and their approval relationship. PVS is neither a license nor a fixed tax rate.

3. D IVSC develops IVS. Philippine national adoption and professional regulation involve different institutions and sources.

4. B IVS 100 section 50 identifies these different dates. The report date is not the publication or effective date of a standards edition.

5. D A proposal and its timetable do not establish final operative wording or national adoption.

6. C IVS 100 section 50 addresses retrospective edition documentation. The historical date alone does not settle every timing and jurisdictional requirement.

7. A Should expresses an expectation, with a sufficient alternative needing support. It is not an unrestricted option to disregard the issue.

8. B The edition-specific heading is IVS 104 Data and Inputs. IVS 102 addresses Bases of Value; IVS 106 addresses Documentation and Reporting.

9. C IVS 106 is the 2025 reporting and documentation chapter. An old reference needs its edition before it can be interpreted accurately.

10. D The asset context supplements the general framework. Scope, basis and explanation still matter.

11. B IVS 410 directs the development-property inquiry. It does not replace the General Standards or eliminate consideration of other relevant asset chapters.

12. A The source and its application give the legal provision authority. A desired result or deadline is not the same kind of requirement.

13. D A disclaimer does not cure inadequate work. The appraiser must address the restriction's effect rather than merely alter presentation.

14. A Precision does not establish suitability. The subject, evidence and model must be connected through professional reasoning.

15. C Use the decimal rate: 900,000 ÷ 0.09 = 10,000,000. The supplied inputs are teaching assumptions; the arithmetic does not verify their market appropriateness.

16. B The basis of value and the approach answer different questions. A particular investor's objectives do not automatically represent the relevant market.

17. A IVS 106 paragraph 20.04 connects retention with applicable requirements. This lesson does not invent one universal period.

18. D Arithmetic verification is narrower than assessing the suitability of evidence, method and value conclusion.

19. B 8,000,000 × 0.20 = 1,600,000. The stipulated assessment level is not a market-value discount or a verified rate for an actual property.

20. C The edition, chapter and location allow the passage to be found. A download date or isolated number is insufficient.

Standards reference worksheet solutions

1. Record Philippine Valuation Standards third edition 2025, published by BLGF, and Department Order No. 022.2025. Its description incorporates IVS 2025 and Philippine guidance. A 2026 upload path does not establish effectivity. Read the order's actual effectivity provision and relevant publication record before assigning a precise national effective date.

2. Publication is 31 January 2024; effectiveness is 31 January 2025 under the checked IVS text. Record the edition relied upon and applicable at a historical valuation date. The dates of performing and reporting the work and the jurisdictional requirements also need consideration.

3. A statute supplies legal authority within its scope. A final effective standard supplies operative standards requirements where applicable. An exposure draft supplies proposals for consultation. A red-line document helps compare revisions but requires checking the clean final wording.

4. For IVS 2025: 101 Scope of Work; 102 Bases of Value; 104 Data and Inputs; 105 Valuation Models; 106 Documentation and Reporting. A number without an edition can point to a different subject in an older structure.

5. An applicable authoritative local requirement has a legal or regulatory source and may need priority where it conflicts. A client request to omit essential work does not acquire that authority. Determine the actual conflict and explain its effect rather than using a blanket reference to local law.

6. Retention is tied to applicable requirements; no universal period is supplied here. A restriction that is concluded to affect IVS compliance prevents an unsupported compliance statement. A disclaimer cannot supply the missing work.

7. Ask which interest is being valued, what valuation date is required, whether the opinion concerns the property as it stands or an assumed condition, and what basis of value and intended use apply. Then investigate whether the project model and evidence answer that confirmed assignment.

8. Example explanation: "RESA regulates the professional practice of real estate service and the qualifications needed to offer appraisal work. RPVARA establishes the national real property valuation reform framework and identifies the roles of PVS, BLGF and the Secretary of Finance. PVS provides the Philippine standards context based on the relevant international framework, while IVSC develops IVS. The appraiser must identify the applicable editions and requirements for the particular assignment. A professional license does not select the correct subject interest, valuation date or evidence. An automated template does not establish that its inputs and model suit the intended use. Proper work requires professional reasoning and an explanation that connects the assignment, evidence, assumptions and conclusion."

18 Sources and examination preparation status

Legal provisions and the cited IVS clauses were independently checked in primary texts. The full BLGF PDF was unavailable during verification; official indexed extracts confirmed the third-edition title, adoption-order title and selected guidance headings. A precise national effectivity date and complete Philippine clause verification remain subject to checking the full publication.

Check the 2027 examination program, topic weighting and later standards adoption against official issuances when available. IVSC's 2026 announcement describes a proposed future timetable. All examples, worksheets and questions here are original educational material.

1 PRC examination coverage

Professional Regulatory Board of Real Estate Service. Program of the Real Estate Appraisers Licensure Examination on 8 August 2024 in NCR, page 1. Standards and ethics; Philippine and international valuation standards; valuation procedures research and report writing. Historical coverage reference; not a verified 2027 program.
https://www.prc.gov.ph/sites/default/files/exam%20program%20appraiser%20august%202024%20%28rev%29.pdf

2 Professional regulation

Republic Act No. 9646, 29 June 2009. Real Estate Service Act of the Philippines. Sections 3 and 4. Primary statutory text reproduced by the Lawphil Project.
https://lawphil.net/statutes/repacts/ra2009/ra_9646_2009.html

3 National valuation reform

Republic Act No. 12001, 13 June 2024. Real Property Valuation and Assessment Reform Act. Sections 3–5 and 13–19. Standards institutions market value assessed value and the SMV framework. Primary statutory text reproduced by the Lawphil Project.
https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

4 Philippine national publication

Bureau of Local Government Finance. Philippine Valuation Standards third edition 2025, incorporating IVS 2025 and Philippine guidance. Official indexed publication extracts identify Department Order No. 022.2025 and selected guidance subjects. Full national text and order effectivity require direct checking for a specific application.
https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

5 Checked international standards text

International Valuation Standards Council. IVS effective 31 January 2025, published 31 January 2024. Source locations used: structure; IVS 100 sections 40 and 50; IVS 106 paragraphs 20.04 and 30.08. Primary standards text hosted by SAICA. No standards manual is reproduced.
https://saicawebprstorage.blob.core.windows.net/uploads/resources/IVS-effective-31-January-2025.pdf

6 Future edition status

IVSC. IVS Exposure Draft Published for Consultation, 30 January 2026. Proposed next-edition timetable: publication January 2027 and effectiveness January 2028. The announcement describes a proposal and timetable.
https://ivsc.org/ivs-exposure-draft-published-for-consultation/

7 Edition structure and obligation wording

IVSC. New edition of the International Valuation Standards published. Official announcement and associated frequently asked questions on the 2025 structure, General and Asset Standards, and must and should. Read edition-specific final wording when applying a requirement.
https://ivsc.org/new-edition-of-the-international-valuation-standards-ivs-published/

8 Automated models and professional judgment

IVSC. IVAS–IVSC Business Valuation Conference 2024, 29 August 2024. Public explanation that competent professional judgment is necessary when automated models and AI support a standards-compliant valuation.
https://ivsc.org/ivas-ivsc-business-valuation-conference-2024/

REALEX

Lesson 9

Assignment Scope and Bases of Value

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

Before calculating a property value, establish exactly what the opinion must answer. The same building can be considered in its current unfinished condition, under an assumed completed condition, or from a particular investor's perspective. Those questions can produce different amounts without making one calculation wrong.

This lesson develops the assignment definition introduced in Lessons 1 and 8. You will practise identifying the client, intended users, property interest, valuation date and appropriate basis of value. You will learn to distinguish assumptions from investigation limitations, assess restricted information and keep a completion scenario separate from the actual property opinion.

The explanations and all exercises are original examinee study material. Numerical assumptions are supplied for learning and are not verified market rates, tax levels or lending policies. The source notes identify checked international concepts and the Philippine publication checks that remain necessary.

Your learning goals

- Describe the client decision and identify intended users.
- Specify the property interest and distinguish it from a business or equity interest.
- Separate valuation inspection and report dates.
- Distinguish current conditions assumed completion and a prospective opinion.
- Match the value basis with the intended use and input perspective.
- Analyze market rent alongside actual lease terms and incentives.
- Classify assumptions special assumptions and information limitations.
- Prepare an original engagement specification and respond to material changes.
- Evaluate whether restricted information permits supportable work.
- Explain a calculation without relabeling a subtotal as property value.

Study plan: Allow about four hours in two sessions. Read sections 1–8 first and sections 9–16 next. Complete the ten worked cases, assignment worksheet and 20-question test. Use an official standards copy for clause checks.

1 Define the assignment before calculating value

A useful opinion answers a defined question

A finance director sends an appraiser a construction budget and asks, “What is our property worth?” The attachment includes land purchase payments, certified construction work, projected rental revenue and a proposed loan. Before using any of these figures, establish what decision the director wants to support. A current lending decision, a purchase negotiation and an investor’s development decision can require different analyses of the same address.

An assignment begins with the question to be answered. The scope then describes the subject and the work needed to answer it. The basis of value identifies what the resulting amount means. These elements influence the selection of evidence, the treatment of assumptions and the explanation delivered to the reader. They remain necessary even when the calculation is simple.

Consider an unfinished shop building. One question concerns the ownership interest in its present condition. Another asks what a completed and occupied building could be worth. A third asks whether the owner should spend more money completing it. The first two are different valuation scenarios. The third is a decision that may require construction costs, future income, timing and risk as well as valuation. A single unlabeled amount cannot serve all three reliably.

The examinee’s first task is often to identify the missing instruction. If the problem does not state the interest, date or assumed condition, clarification may be the best next action. Choosing an approach immediately can commit the appraiser to answering a question the client never actually asked.

Scope describes work and responsibilities

For study purposes, think of the scope as the agreed description of the engagement. It connects the client’s decision with the subject, value basis, investigation and deliverable. It also identifies restrictions and the information on which the work depends. A fee and deadline alone leave most of that description unanswered.

Suppose a quotation says “Appraisal of building, PHP 20,000, due Friday.” It does not tell you whether the land is included, whether existing tenancies are part of the interest, who will rely on the report, or whether the client expects a current opinion or a completed-development scenario. A professionally useful quotation needs engagement terms that resolve those matters.

IVS 101 requires an appropriate agreed scope for valuations and reviews, including internal work. Agreement and changes are documented in writing before the report is completed. An inadequate scope cannot support an IVS compliance claim. This is a short summary; read the full standard for its requirements. [1, IVS 101]

In practice, establish the terms early enough to guide the work. The standard’s completion deadline for written agreement should not become a reason to postpone essential discussions. Discovering the intended user only after drafting the report can require substantial additional investigation or a different assignment.

2 Identify the client and the people who will use the report

The person who pays may not be the only intended user

The client appoints the appraiser. The intended use explains the decision the valuation supports. Intended users identify those for whom the work is prepared. Keep these entries separate in your notes because changing one does not automatically change the others.

For an original example, a property company commissions a valuation for its acquisition committee. The company is the client and the committee will use it to consider a purchase. A lender later asks for a copy. The report's availability does not settle whether it is suitable for the lender's lending decision or whether reliance was contemplated in the engagement.

The lender may require a different interest analysis, verification process, reporting content or scenario. The appraiser should clarify the proposed additional use and user, assess whether the existing work is sufficient, and agree any necessary revised terms. Simply changing the addressee can conceal a substantive change in the assignment.

Internal assignments deserve the same attention. An employee may prepare a value opinion for an employer's asset committee. The employment relationship does not remove the need to identify what is being valued, why, at what date and under what conditions. An internal spreadsheet can influence a major decision even without a printed cover page.

Make the intended use specific

"For business purposes" is usually too broad to guide the investigation. "To support the client's consideration of acquiring the specified leased property interest" gives the appraiser a decision to analyze. It still needs a basis, date and agreed scope, but it identifies the practical question more clearly.

For lending, distinguish the appraisal of the property from the lender's credit decision. A supported property value does not determine the borrower's repayment capacity, the approved loan amount or the enforceability of security. Those questions involve further information and professional responsibilities.

For financial reporting, determine the accounting measurement requested and the relevant reporting framework. An instruction using "fair value" needs its authoritative definition. For taxation or a legal proceeding, establish the relevant statutory or legal measurement instructions. Do not infer the entire assignment from one familiar word.

Distribution and reliance need clear terms

The report may be sent to several people for information while having a narrower agreed reliance purpose. An attachment to a marketing brochure introduces a different audience and presentation context from a confidential acquisition report. Address permitted use and distribution in the engagement and report, subject to applicable law.

RICS professional discussion emphasizes that labels such as "indicative" do not by themselves resolve the responsibilities attached to valuation advice. Its rules apply within the RICS framework; they are not presented here as automatically binding every Philippine appraiser. The useful study point is to examine the actual service and reliance circumstances. [5]

3 Describe the subject as an interest in property

An address identifies location but not the whole subject

An appraisal concerns defined rights and benefits. The same site can involve an owner's interest, a tenant's interest, a partial ownership share or a proposed transaction involving several components. An address and floor area help identify the physical property, but the relevant rights require their own description and verification.

Return to the fictional Harana Development Corporation site from Lesson 8. The company owns a 2,000-square-metre site with an unfinished three-storey commercial building. For the present lesson, suppose the documents describe an ownership interest subject to an existing ground-floor lease. The assignment must explain whether that leased position is being analyzed or a different condition is expressly assumed.

A model prepared on vacant-possession assumptions may ignore the lease's rent, remaining term, renewal provisions and restrictions. The arithmetic can be correct while the model represents a different interest from the one offered as security or considered for purchase. Identify the mismatch before considering an adjustment.

Read the title, relevant instruments and other evidence within the agreed investigation. The appraiser's economic analysis does not itself certify legal ownership, cure defects in conveyance or settle competing claims. Where legal interpretation is material, define the information needed and obtain appropriate assistance. State the premise actually used and its effect on the opinion.

Include and exclude components deliberately

A small hotel transaction may involve land, buildings, equipment, inventories, contractual arrangements and business benefits. The entire operating package can produce income, but that income is not automatically attributable to the real property alone. Identify which components the assignment includes and how their contributions will be analyzed.

Suppose a fictional resort sale has a package price of PHP 18 million. The seller assigns PHP 2 million to equipment and PHP 1 million to a business name and booking arrangements. Subtracting those labels produces PHP 15 million, but the result is not independently supported merely because subtraction is possible. The allocation itself needs investigation and a method consistent with the assignment.

Likewise, a company owning a building is not identical to the building. Shares may reflect borrowings, cash, tax positions, other assets and corporate rights. An appraisal of the property should not silently become a valuation of the company's equity. A development budget and a share acquisition model may be useful documents, but their subjects differ.

Record units and boundaries

State whether an area refers to land, gross floor area, lettable space or another defined measurement. If drawings describe 1,800 square metres of floor area and a lease describes 1,450 square metres of rentable space, a rate per square metre requires the matching denominator. Record the measurement source and any unresolved discrepancy.

For a partial acquisition, identify the interest or portion involved. A road-widening strip raises a different subject description from the entire parent parcel. Further compensation analysis may be necessary under applicable law. This lesson establishes the assignment description; it does not supply a universal compensation formula.

4 State the date and the condition being valued

Dates describe different parts of the engagement

The valuation date fixes the point in time represented by the opinion. The inspection date records when an observation occurred. The report date identifies when the conclusion was issued. An information document

may have its own effective period. Keep these dates visible because they explain what the evidence can establish.

In an original timeline, the valuation date is 30 September 2026, the inspection occurs on 7 October and the report is issued on 20 October. The later inspection can help investigate the earlier condition, but the appraiser must consider whether any relevant change occurred during the interval. A tenant moving out on 5 October would be material to a claim about occupancy on 30 September.

The date an invoice was paid also does not necessarily establish the date a structure existed. Payment may follow work by several weeks. Certified quantities, site records, photographs and completion information can help distinguish expenditure timing from physical progress. An appraiser should understand the source's meaning before using it to reconstruct condition.

Separate a present hypothetical condition from a future opinion

Suppose the building is unfinished on 30 September 2026. An opinion at that date with the building assumed completed is a present-date scenario involving a changed condition. An opinion at 30 June 2027, the anticipated completion date, involves a future measurement date and expectations about that future market. They are not interchangeable descriptions.

For a present-date completion scenario, the assumed building condition changes while the valuation date remains current. For a future-date scenario, both the subject's anticipated condition and the future market need consideration. The report must identify what is held constant and what is being forecast. Neither result should be displayed as the current value of the actual unfinished property without explanation.

For Harana, create separate labels before entering numbers: current ownership interest in its actual unfinished condition; the same interest at the current date with specified completion assumed; and an expressly requested prospective scenario at a stated future date. The client may need one, several or none of these, depending on its decision.

Avoid using hindsight as earlier market knowledge

A retrospective opinion concerns an earlier date. Later evidence may help establish facts that existed then, but it should not automatically import later expectations into the earlier market. A subsequent planning approval, flood event or interest-rate change needs careful treatment.

For example, a zoning approval issued in February 2027 is not proof that an unconditional right to develop existed on 30 September 2026. Investigate what was permitted and reasonably anticipated at the earlier date. A contemporaneous application can show that approval was sought; it does not demonstrate that approval was certain.

When you answer a date question, draw a short timeline and label every event. Determine whether the issue concerns the effective standards edition, the measurement date, the property's condition or the information available. Lesson 8 explained edition checks; this lesson applies the same discipline to the assignment's facts.

5 Separate the basis from the premise and the approach

Each term answers a different question

The intended use concerns the decision supported by the work. The basis of value gives meaning to the estimated amount. The premise concerns the circumstances or use assumed for the asset. The approach

organizes the analysis, while the method and model implement it. Write these as separate entries rather than treating “income approach” as a complete assignment description.

For a fictional rental property acquisition, the client may request market value of the ownership interest subject to existing leases at a stated date. An income approach may be appropriate, but the evidence and assumptions still need to represent that market-based question. A spreadsheet prepared with the buyer’s personal financing structure may instead be answering an investment question.

An instruction to analyze an orderly disposal also needs more than a value label. The assumed marketing circumstances, asset grouping, transfer condition and relevant date influence the inquiry. Similarly, “existing use” tells you something about how the asset is used, but does not automatically settle the basis, rights or method.

The wording should survive removal of the formula

A good assignment description remains meaningful when the calculation is temporarily removed. If the instruction says only “NOI divided by cap rate,” you know an operation but not the subject, basis or date. Ask what the income represents and whose expectations the rate reflects.

Suppose annual stabilized net income is PHP 1,200,000. At an illustrative 8% rate, division gives PHP 15,000,000. At 6%, it gives PHP 20,000,000. Neither amount acquires a value basis from its size. If the first rate and income represent market participants and the second reflects a particular investor’s objectives, the calculations answer different questions.

The basis should guide the input selection. It is difficult to repair an investor-specific analysis by changing the final heading to “market value.” Review the assumptions, benefits, risk treatment and evidence throughout the model. A label at the end cannot substitute for a consistent measurement throughout the work.

Several bases can be reported with clear boundaries

A client may legitimately request a market-based opinion and a separate investment assessment. The engagement should identify both, their intended uses and the assumptions supporting each. Do not blend their results into an unexplained average.

For example, averaging PHP 15 million market-based teaching indication and PHP 20 million investor-specific teaching indication yields PHP 17.5 million. That average is arithmetic, but it has no defined measurement objective in the exercise. A combined conclusion would need a reason that fits the assignment, not a desire to make two figures agree.

The practical habit is to name the question first, then select evidence and analysis that answer it. In an examination case, a basis mismatch can be the principal defect even when every calculation is numerically correct.

Entry	Question it answers	Original example
Intended use	What decision is supported	Consider acquisition of the defined interest
Basis of value	What the amount means	Market value on a stated source
Premise or condition	What use or condition is analyzed	Actual unfinished condition
Approach	How the inquiry is organized	Income analysis
Method and model	How the analysis is implemented	Capitalization model with relevant inputs

6 Analyze a market value assignment

Market evidence needs its transaction context

Market value concerns a date-specific exchange under market conditions, involving informed, independent and willing parties, proper marketing and no compulsion. Investment value concerns a particular owner's objectives. These are concise explanations of established terms; use the authoritative definition for the actual engagement. [2]

Imagine two fictional adjacent parcels. General market evidence supports similar unit prices for ordinary buyers. One neighboring operator offers much more for the smaller parcel because it would complete that operator's loading access. That offer deserves investigation, but its unique benefit should not be transferred mechanically to every buyer or every parcel.

The property may possess a feature valuable to the wider market, such as lawful road access or a useful service connection. That is different from a benefit obtainable only by a particular buyer who controls the neighboring land. Analyze who can obtain the benefit and whether it transfers with the subject interest.

A motivated seller can still transact in a normal market. An owner selling after retirement, relocating or changing investments is not automatically compelled in the valuation sense. Investigate the actual circumstances, marketing and constraints instead of classifying a transaction solely from a personal motive.

Price evidence is not a ready-made conclusion

For an original example, a warehouse sells for PHP 24 million, including movable equipment. A second transaction reports PHP 22 million with deferred payment terms. A third property is advertised at PHP 26 million but remains unsold. Each record provides different information. Label what occurred before assessing comparability with a subject property interest.

A related-party transfer may also require examination. It can contain useful facts about the asset, but the agreed amount may reflect group strategy, financing or other circumstances. The appraiser should assess the evidence rather than treating either relationship or price as decisive by itself.

The market-value question is about the subject at the specified date. A sale six months later can inform analysis only after considering intervening conditions and what was known or knowable at the earlier date. A new infrastructure announcement might explain a subsequent increase rather than justify applying the later price unchanged to the earlier subject.

A current use can require further inquiry

Do not assume the present use automatically supplies the economically relevant premise. A vacant old warehouse on land with redevelopment potential raises questions about lawful uses, physical feasibility, costs and market demand. Equally, a planned tower does not become the proper assumption simply because it generates the largest spreadsheet result.

Detailed highest-and-best-use analysis belongs in later lessons. For this lesson, recognize when a proposed use needs investigation and when an instruction assumes a condition that is not presently established. Record that distinction in the scope before analyzing the scenario.

7 Understand investment value and particular benefits

The investor question can be legitimate

A prospective owner may need to understand what a property is worth to its own operations. It may have a different required return, a specific operating plan or a benefit connected with other assets. An investment analysis can serve that decision, provided its basis and assumptions are clear.

For a fictional logistics company, an adjacent warehouse could reduce annual transport expenditure by PHP 300,000. That saving belongs first in an investigation of the company's operations. Determine whether it depends on facilities the company already owns and whether another buyer could achieve a comparable benefit. Do not describe the saving as ordinary rental income without support.

Suppose the company's teaching model combines PHP 1,200,000 of property net income with PHP 300,000 of company-specific savings and capitalizes the total at its assumed 7.5% rate. The result is PHP 20,000,000. A separate market-based teaching model uses PHP 1,200,000 at 8% and indicates PHP 15,000,000. The difference is PHP 5,000,000 under the supplied assumptions.

The company can consider that difference when deciding whether to bid. It does not establish that every buyer would pay PHP 20 million. It also does not prove the saving, capitalization rate or perpetual income assumption is appropriate in a real assignment. The illustration isolates the effect of changed benefits and return assumptions.

Synergy needs a defined subject and recipient

For another original exercise, Parcel A has a standalone teaching value of PHP 6 million and Parcel B PHP 4 million. The combined site is assigned PHP 11.5 million in a separate stipulated scenario. The mathematical excess is PHP 1.5 million. It represents an assumed combination benefit in the exercise, not an automatic adjustment to either parcel.

Identify how the combined site creates that benefit. Does assembly create legal access, a larger usable footprint or operating efficiency? Can typical purchasers assemble and exploit the same combination, or does the benefit require one specific owner's rights? The answer affects how the benefit fits the requested basis.

Do not add the entire PHP 1.5 million to both parcels. That would double count the supplied benefit. Any allocation needs its own purpose and defensible reasoning. A bargaining position also need not equal an allocation of value; transaction negotiations can reflect several interests and constraints.

Investment value is not a license for arbitrary assumptions

An investor-specific basis still requires analysis. A personally preferred return cannot make impossible construction, unsupported rents or nonexistent rights plausible. Investigate the operating plan, timing and risks, and explain where the result depends on a condition that has not been established.

For examinee practice, ask whose benefits and objectives the inputs represent. A particular owner, ordinary market participants and two identified negotiating parties can require different perspectives. The appropriate response is to match the perspective to the assignment and label the result accordingly.

8 Specify market rent and the lease terms

A rent figure needs a unit and a lease context

Market rent concerns a rental exchange on appropriate terms at the specified date. Contract rent records the actual lease obligation. They can differ, so the lease terms and the subject interest need attention. [2; 1, IVS 102 Appendix A20]

For an original comparison, Shop A is offered at PHP 60,000 per month with no rent-free period. Shop B is agreed at PHP 66,000 per month with three rent-free months in a three-year term. Assume the exercise ignores escalation, payment timing and other incentives. Shop B collects rent for 33 of 36 months: PHP 66,000 × 33 = PHP 2,178,000. The simple average is PHP 60,500 per month.

This average helps compare the supplied cash amounts, but it is not a complete market-rent opinion. A discounted effective-rent calculation would treat timing differently. Repairs, service charges, fit-out contributions, breaks and renewal terms may also matter. State what the simplified calculation includes before interpreting it.

An area-based rent needs the correct area. If Shop A has 150 square metres of agreed rentable area, PHP 60,000 per month corresponds to PHP 400 per square metre per month. If another record uses gross building area, the rates are not directly comparable merely because both say “per square metre.”

Actual leases belong in the actual interest analysis

Suppose the subject is leased for PHP 45,000 per month for another four years, while the exercise supplies PHP 60,000 as a comparable market rent on stated terms. The ownership interest includes an existing contractual position. It does not immediately produce PHP 60,000 simply because that amount appears in market evidence.

Investigate the lease’s remaining term, reviews, obligations, break rights and other relevant provisions. If a separate vacant-possession scenario is requested, describe that scenario explicitly. The current leased-interest analysis and the hypothetical vacant scenario should remain distinct.

The simple annual gap is PHP 15,000 × 12 = PHP 180,000. That gap is a teaching observation, not the capital value of a tenant’s interest or a universal deduction from the owner’s property value. Timing, terms, risk and the specified interest affect further analysis.

Clarify the rental task

A request for “rent valuation” can mean a current market-rent opinion, a rent-review determination under an existing contract, an analysis of a landlord’s interest or a tenant’s interest. Ask which task is intended and what authoritative or contractual instructions apply.

A nominal amount in a long-standing lease is not evidence of a current market rental exchange merely because it is legally payable. Conversely, a current advertised rent is not automatically the rent collectible under that lease. Accurate labeling protects both the analysis and the reader's understanding.

9 Distinguish other bases and measurement contexts

Fair value needs its source

Under IFRS 13, fair value concerns an orderly market-participant exit price at the measurement date. The framework applies where the relevant accounting standards require or permit that measurement, subject to its scope. It does not mean a price selected because management finds it fair. [3]

For a fictional reporting engagement, the company asks for an amount for its year-end accounts. Clarify the accounting framework, asset description and measurement instructions with the responsible preparer. A valuation can support an accounting measurement without deciding every recognition, classification or disclosure question in the accounts.

Suppose the property's historical carrying amount is PHP 12 million and a supported measurement on the required basis is PHP 17 million. The PHP 5 million difference is arithmetic. It does not, by itself, establish the correct accounting entry, a distributable profit or a sale. Those conclusions require the applicable accounting treatment and facts.

Equitable value concerns identified parties

The equitable-value perspective considers an exchange between specified parties and their respective interests. It should not be confused with IFRS fair value or a general market-value opinion. [2]

For an original illustration, a landlord and tenant are negotiating termination of a long lease. Each party has particular contractual benefits and disadvantages. A request to analyze a fair transfer between those identified parties needs a defined task and appropriate legal information. Dividing an estimated benefit equally is not an established valuation method merely because the split sounds fair.

If the engagement instead requests market value of the landlord's interest for a third-party acquisition, the analysis represents a different question. Identify the requested perspective before selecting data or converting contractual cash flows into an indication.

Tax measurements need the statutory context

RPVARA distinguishes market value from assessed value and identifies the role of PVS in the national valuation framework. For a supplied teaching market value of PHP 10 million and assessment level of 20%, assessed value is PHP 2 million. The level is an exercise assumption, not a verified rate for a particular property. [4]

A tax declaration, zonal schedule, accounting carrying amount and loan balance are different records. Their relevance depends on what they measure and the assignment. Do not substitute any of them automatically for a property market-value opinion.

Legal compensation and court-related assignments likewise require the governing instructions. A familiar value term may have a specific statutory meaning. This lesson teaches source identification and assignment framing; detailed tax, compensation and litigation coverage follows elsewhere in the curriculum.

10 Describe liquidation and constrained disposal carefully

A pressured sale needs more than a percentage

A forced sale describes constrained exchange circumstances rather than a separate universal value basis. In the checked 2025 treatment, liquidation value concerns gross realization in a liquidation sale with a compelled seller. Specify whether orderly or forced disposal is assumed. The IVSC glossary's older liquidation entry should not replace that current treatment. [2; 1, IVS 102 Appendix A60 and A120]

For a fictional industrial property, the client asks what amount might be obtained if disposal must conclude within 30 days. Clarify why that limit applies, what happens if it is missed, whether buyers can investigate the asset, and how it will be marketed. A short deadline alone does not specify all the conditions needed to analyze the disposal.

The property's normal transaction process may require inspections, environmental information and transfer documentation. Restricting time can change which purchasers can act and how they evaluate risk. The inquiry needs evidence concerning those circumstances, not a fixed "quick sale discount" applied to a previously estimated amount.

Suppose a bank's internal exercise uses 75% of a stipulated PHP 16 million property value as a lending policy calculation. The product is PHP 12 million. That result may describe the policy's arithmetic. It does not independently establish a disposal price or liquidation value, and the exercise does not assert that this is an actual bank rule.

Orderly disposal and normal market exchange differ

An orderly liquidation scenario may allow a reasonable marketing period while still involving a seller required to dispose. It needs assumptions about what assets are sold, whether they are grouped, their condition and the circumstances of sale. The fact that marketing is orderly does not automatically make the scenario identical to a normal willing-seller market-value assignment.

For an operating workshop, selling the entire property and operating equipment together can produce a different scenario from selling equipment separately and then the premises. The unit of sale affects investigation. Do not add a business continuity benefit to a scenario that assumes operations cease and components are dispersed unless the assumptions support it.

Falling prices do not prove compulsion

Consider a seller who accepts less than last year's price after ordinary marketing in a weak market. A low price relative to historical expectations is not enough to establish a forced sale. Investigate whether the seller faced a binding constraint that prevented normal exposure and buyer investigation.

The examinee should identify what is missing from the disposal instruction. "Deduct 20%" is rarely a defensible response when the scenario supplies no evidence for that percentage. A stronger answer clarifies the circumstances, selects the proper measurement context and investigates evidence relevant to the defined disposal.

11 Classify assumptions and investigation limitations

An assumption describes a premise used in the analysis

An assumption may concern a fact consistent with the valuation date. A special assumption changes that date's facts or adopts a perspective unavailable to participants generally. Significant assumptions need support and relevance. A limitation describes work or information that could not be obtained. These concepts interact but are not interchangeable. [1, IVS 102 sections 50 and 60]

For an original case, a current survey supplied by a qualified source is used for the site area, subject to investigation appropriate to the assignment. The appraisal records the area source and the premise used. It does not claim the appraiser independently performed the survey.

If inspection confirms that the building is unfinished but the requested scenario assumes it completed at the current date, the condition differs from the actual facts. Make the special assumption visible. Specify what completion means, including the described works and relevant usable condition, rather than inserting the vague phrase "fully completed."

If the appraiser cannot inspect the interior, that is a limitation. It does not establish that the interior is sound. An assumption concerning interior condition requires its own basis and an assessment of whether the assignment can still be completed appropriately.

Classify the premise by comparison with the facts

Ask first what exists at the valuation date. Then compare the proposed premise with that information. A factual difference can make a proposed assumption special. If the facts are unknown, investigate whether a supported ordinary assumption is possible; uncertainty should not be disguised as a confirmed condition.

Suppose a client states that approval for commercial use has been issued and provides the relevant document. Verification may support treating that approval as part of the actual context. If the application is pending and the client asks the appraiser to assume approval already granted, the scenario changes a current fact. If no document is available, the information gap must first be addressed.

The same distinction applies to occupancy. A recorded lease is evidence of a contractual position. An assumed future occupancy rate is a model input. Treating an empty building as fully leased on the present valuation date is a changed-condition scenario. These statements concern different things even when they all appear in a rent worksheet.

Case fact	Classification to investigate	What needs attention
Unfinished building assumed completed today	Special assumption	Define the changed condition and its support
Interior inspection prohibited	Investigation limitation	Assess material gaps and alternative evidence
Current survey used for area	Information source and related premise	Assess reliability relevance and necessary checks
Pending permission assumed granted today	Special assumption	Distinguish the actual status from the scenario

Agreement does not establish plausibility

A client can request a scenario, but agreement does not make every scenario reasonable or professionally supportable. A proposed completion condition must be sufficiently defined for analysis. A request to assume away every legal and structural difficulty may remove the very issues relevant to the intended use.

In a case answer, state the premise, identify its classification and explain the consequence. “Special assumption” alone earns little understanding if the answer does not say which fact changes or how that change affects the value opinion.

12 Determine whether restricted information is adequate

Investigate what the restriction affects

An assignment may use documents and remote information instead of a full physical inspection, but its adequacy depends on the subject, intended use and evidence. A desktop description is a method of investigation, not an automatic assurance that the work is sufficient.

For a fictional apartment unit, recent inspection records, measured drawings and verified lease information may answer some questions. For an old industrial building with uncertain contamination and structural condition, the same package may leave material issues unresolved. Evaluate the actual gaps rather than treating all properties alike.

Ask whether the missing information affects the property interest, income, cost, permitted use or risk. An unavailable paint-color detail and an unverified legal access right do not normally have the same significance. Explain why the gap matters to the intended decision.

Suppose Harana prohibits discussion with its tenant, withholds the lease and asks for an opinion of the ownership interest subject to that lease. If the appraiser cannot establish material contractual benefits and obligations through other adequate evidence, the restriction reaches the subject itself. A warning on the cover cannot supply the missing lease information.

Seek an adequate revised scope

The first response can be a specific request for the missing document or permission. Explain what is needed and why. If an appropriate alternative source can establish the material fact, consider that source and document the reasoning. Do not demand unnecessary work simply because another assignment used it.

If the original deadline prevents adequate investigation, agree a revised timetable or another supportable scope. A preliminary analysis for a limited internal question may differ from a completed lending valuation, but relabeling inadequate work does not make it sufficient for the lender’s purpose.

When material restrictions prevent an IVS-compliant outcome, communicate that effect in writing. The scope and compliance statement must reflect what the work can support. [1, IVS 101 paragraphs 20.01 to 20.03]

Preserve the effect in the conclusion

Even a supported assumption can materially affect a conclusion. Explain the dependency where the reader can understand it. A distant attachment listing assumptions may not make a prominent figure understandable if the main text silently presents a different scenario.

For example, “PHP 25 million” without context conceals whether the actual unfinished building, assumed completed building or investor’s planned operation was analyzed. The conclusion should carry the essential date, interest, basis and condition description. Detailed assumptions can then explain the supporting scenario.

The professional objective is a useful, supportable answer to the agreed question. A longer disclaimer cannot replace essential inquiry, and a shorter report can still be adequate when the work and explanation meet the actual assignment requirements.

13 Develop an original engagement specification

Begin with the client decision

For the Harana teaching engagement, assume the client is considering refinancing its property. A fictional lender, Meridian Bank, is an intended user for that specified lending consideration. The task is to develop a current market-value opinion of the ownership interest in the identified property as it stands on 30 September 2026, subject to the existing rights established through the investigation.

This description supplies a direction, but it is not a complete engagement letter. The appraiser still needs to identify the exact subject documents, competence and conflicts, information sources, inspection and investigation, assumptions, deliverable and relevant legal and standards requirements. Fees, responsibilities and timing also need appropriate agreed terms.

The following original specification illustrates how to connect the entries. It is an educational example, not a prescribed form or a complete compliance checklist. Actual work requires the full applicable standards and professional requirements.

Teaching engagement entry	Original specification
Client and intended user	Harana Development Corporation and Meridian Bank for the agreed lending consideration
Purpose	Support consideration of refinancing the defined property interest
Subject	Identified ownership interest in the site and unfinished building subject to established rights
Date and currency	30 September 2026 and Philippine pesos
Current scenario	Market-value opinion in the actual unfinished condition
Work	Investigate identity rights lease terms condition permissions and relevant market evidence
Information and specialists	Evaluate supplied records and define any specialist’s technical role
Deliverable and boundaries	Written report for the agreed use with relevant assumptions limitations and distribution terms

Keep a separate completion scenario

Suppose the client also requests a present-date market-value scenario with specified remaining construction completed. That additional scenario needs an agreed special assumption describing the changed condition. The investigation must establish sufficient information about the proposed works and the evidence relevant to the assumed completed property.

The current opinion and completion scenario should be separately labeled and explained. The lender can then understand which result describes present security and which depends on an assumed condition. The appraiser should not select whichever result supports the requested loan and suppress the other.

If future market expectations are requested, establish a separate prospective date. Record the scenario's forecast dependencies. Avoid describing a current-date assumed-completion result as a prediction of what the asset will sell for after construction.

Assign responsibilities to the actual work

For the teaching case, Harana supplies title and lease records, drawings, progress information and relevant permits. The appraiser evaluates significant supplied information and obtains further evidence appropriate to the assignment. A specialist's structural report, if used, should have an identified role and scope. The appraisal should explain which condition conclusions depend on that report.

An appraiser's responsibility for the value opinion remains distinct from the specialist's technical task. A quantity surveyor's remaining-cost estimate can support development analysis without determining market value. Likewise, a legal opinion can help establish the rights considered without selecting the capitalization rate.

Coordinate these inputs through the assignment specification. If the specialist's report concerns a different building condition or date, investigate the mismatch before using it. Professional coordination depends on compatible subjects and assumptions, not merely on collecting signed documents.

14 Manage changes without changing the meaning silently

Identify what the new request changes

During the Harana engagement, the finance director asks for the report to include the company's shares instead of just the property. This is a subject change. Borrowings, other assets and corporate interests may become relevant. A property appraisal cannot be converted into an equity valuation merely by deducting the stated mortgage balance.

Next, the lender requests a condition assumed completed and vacant. This changes the scenario and may require additional evidence. If the existing lease continues at the valuation date, the assumed vacancy must be separately identified and assessed. Record which rights and conditions are actually being changed.

A request to move the valuation date to a later month introduces an evidence and market-date question. Investigate intervening transactions, changes in condition and relevant market information. Reprinting the same figure under the later date would need support; the date is part of the opinion, not a formatting preference.

Document the agreed response

Record the requested change, its effect on the work, the agreed revised scope and the relevant communications. If fees or delivery dates change, connect those terms with the additional work. For an examination case, the best next action often begins with clarifying and agreeing the material change.

Written change control is useful because several people may remember a conversation differently. A report should reflect the final agreed assignment. Its work file should preserve the analysis that supports that version. A saved older scope is not evidence that the newer task was adequately completed.

Consider a request to add a new intended user after issue. Assess whether the existing work can support that user's decision, whether the date remains relevant and whether additional requirements apply. Determine the appropriate new or revised engagement and report process. Do not assume copying an earlier report is sufficient for every later use.

Pressure for a result is a separate professional issue

A client who asks for "at least PHP 30 million so the loan will pass" states a desired outcome, not an appropriate basis of value. The assignment should support a decision through independent analysis. The value conclusion must follow the evidence and agreed measurement question.

Changing a rate until a target appears does not resolve the client's underlying financing problem. The appraiser can explain the scope, assumptions and supported result, but should not manufacture the desired conclusion. Lesson 10 develops conflicts, independence and responses to pressure in greater detail.

For this lesson, distinguish a legitimate clarification from an instruction to bias the result. An additional scenario can be useful when relevant and supportable. A hidden assumption introduced solely to increase the reported figure changes the meaning of the opinion and undermines its usefulness.

15 Keep property value separate from cash available to an owner

Debt and transaction costs answer additional questions

A client often wants to know how much money it can receive from a sale. That practical question may require a value opinion plus a separate estimate of transaction costs, debt settlement and other obligations. Keep those steps labeled so the reader understands which amount represents the property and which represents a simplified owner position.

For an original exercise, assume a supported property value of PHP 15 million, teaching selling costs of PHP 450,000 and a stated debt settlement of PHP 5 million. Simplified proceeds after these supplied items are PHP 9.55 million. The exercise ignores other liabilities and taxes and does not determine actual net cash on a transaction.

The property-value figure remains PHP 15 million in the exercise. The seller's financing arrangement has not converted it to PHP 9.55 million. If a transaction requires settlement of debt, that settlement belongs in the cash reconciliation rather than an unexplained reduction of the property's market-value heading.

Conversely, the borrowing itself can affect the subject if the assignment concerns a different interest or a legal restriction with economic consequences. Do not apply a slogan that debt never matters. Identify the rights and measurement question first, then distinguish property analysis from financing arithmetic.

Cost to complete is not a universal value deduction

Suppose a completed-property teaching scenario indicates PHP 25 million and supplied remaining construction cost is PHP 6 million. Subtracting cost produces PHP 19 million. The result is only a simple model subtotal until timing, risk, additional costs, market conditions and the appropriate development analysis are addressed.

A buyer of an unfinished project may face funding costs, construction uncertainty, delay and an expected reward for undertaking completion. The completion scenario may also use a different income or occupancy condition from the actual project. Analyze those differences rather than presenting one subtraction as a fully supported current appraisal.

The useful connection with cost engineering is subject consistency. A remaining-work estimate describes defined construction obligations and quantities. A property appraisal describes a defined interest and measurement basis. The two can inform each other when their scope, condition and dates are compatible.

Explain every bridge between amounts

An appraisal report, an acquisition model and a cash-proceeds schedule can sit beside each other. They should make their relationships visible. A reader should be able to trace which starting amount is a value opinion, which items are stipulated costs and which entries depend on separate investigation.

When an examination item supplies a calculation, perform it accurately and then state what it means. An arithmetic subtotal can be correct without being the required appraisal conclusion. This distinction is especially useful in situational questions combining construction cost, rent, borrowings and transaction assumptions.

16 Solve assignment questions in a consistent sequence

Establish the question and then identify the defect

Read what the item asks you to decide. It may request the appropriate basis, classification of an assumption, missing scope information, a calculation or a response to a restriction. A long numerical scenario can still ask a nonnumerical assignment question.

Identify the client decision, intended users, subject interest, date and condition. Then identify the requested basis and its source. Compare those entries with the inputs and proposed work. Look for a mismatch rather than assuming the largest amount is the answer.

For example, a question about the current value of a leased unfinished building may supply an assumed-completed vacant model. The primary issue is whether that model answers the actual assignment. You do not resolve it by recalculating the same income to more decimal places.

If the question asks for a next action, select one that addresses the defect. Obtain the missing lease, clarify the intended user, define the changed condition or revise the restricted investigation as appropriate. A request for information is strong when it identifies what is missing and how it affects the work.

State the conclusion and its reason

A concise professional answer can have three parts: the relevant classification, the decisive fact and the required response. For an assumed completed building at a date when it is unfinished, identify the changed-condition premise, point to the actual unfinished state and require the scenario to be clearly agreed, supported and reported.

For a missing interior inspection, identify the investigation limitation and explain whether adequate alternative evidence can address the material issues. Do not automatically call every limitation a special assumption. The premise used to compensate for missing information needs separate evaluation.

For a market-versus-investment question, identify whose benefits and return assumptions drive the result. Explain why a particular buyer's operating savings cannot automatically be labeled a general market benefit. The answer should connect the selected basis with the supplied facts.

Revise notes by the type of error

After practice, record whether the error concerned the subject, date, basis, premise, information or response. Rewrite the misunderstood assignment in one paragraph. This exercise develops professional reading more effectively than memorizing a list without applying it.

Keep a short notebook entry for each source-sensitive term. Include its name, current source and an original example. Retain edition checks from Lesson 8. An older chapter number or website glossary can describe a historical structure, so consult the checked current text when a clause or revised concept is material.

The aim is to produce an understandable opinion whose meaning matches the agreed task. Calculations become useful after that meaning is established. The cases and practice test that follow give you repeated opportunities to define the task before choosing an action or amount.

17 Ten worked assignment cases

Attempt each question before reading its solution. The entities, case facts and numerical assumptions are fictional. Each explanation identifies the assignment issue; it is not a substitute for a full actual engagement or legal determination.

Case 1 Identify who will rely on the report

Question: An owner commissions an appraisal for a private acquisition discussion. After the report is issued, a lender asks the owner to forward it for a loan approval. The owner asks the appraiser to change only the addressee. What should the appraiser consider?

Solution: Clarify the proposed lending use and intended user, assess whether the existing work and date are adequate for that decision, and agree the necessary new or revised engagement and report process.

Reasoning: Changing the recipient can change reliance requirements. The lender may need verification or scenarios that the acquisition engagement did not address. Availability of a copy does not establish suitability for the additional use.

Case 2 Identify the property interest

Question: A shop building is subject to a verified four-year lease. The assignment concerns the current ownership interest. A spreadsheet assumes vacant possession and immediate market rent. What is the principal mismatch?

Solution: The model represents a vacant scenario while the assigned interest includes the existing lease. Analyze the actual contractual position or separately define and assess any requested hypothetical vacancy scenario.

Reasoning: The lease can affect the benefits available to the owner. A different heading cannot convert vacant-possession assumptions into analysis of the actual leased interest. The issue precedes arithmetic.

Case 3 Separate the present condition from an assumed condition

Question: Harana’s building is unfinished on 30 September 2026. The client requests an opinion at that date assuming specified remaining construction already completed. Is the valuation date necessarily moved to the anticipated completion date?

Solution: No. The requested scenario keeps the current valuation date and changes the assumed physical condition. Identify the special assumption and establish whether the defined scenario is appropriate and supportable.

Reasoning: A current-date assumed-completion opinion differs from a prospective opinion at a future date. The subject condition and measurement date must be separately stated so the reader knows which scenario was analyzed.

Case 4 Use a retrospective timeline

Question: A valuation at 30 September 2026 is prepared in March 2027. Commercial-use approval was granted in February 2027. The client says to treat it as an unconditional approval already existing at the earlier date. What should the appraiser do?

Solution: Investigate the permission and reasonable expectations actually relevant at the earlier date. Do not insert the later approval as an established earlier fact. If a changed-condition scenario is requested, identify and assess it explicitly.

Reasoning: Later evidence may help investigate earlier conditions, but the later event does not itself establish the same rights at the earlier date. The date of an approval and the status of an application answer different questions.

Case 5 Match the income calculation to the basis

Question: A teaching property has market net income of PHP 1,200,000 and a stipulated market rate of 8%. A particular investor adds PHP 300,000 of unique operating savings and uses 7.5%. Compute both indications and explain their difference.

Solution: The market-based teaching indication is PHP 1,200,000 ÷ 0.08 = PHP 15,000,000. The investor-specific indication is PHP 1,500,000 ÷ 0.075 = PHP 20,000,000. The difference is PHP 5,000,000.

Reasoning: The second model includes particular benefits and objectives. Shared use of capitalization does not make the bases identical. These figures use supplied assumptions and do not validate actual income, savings or rates.

Case 6 Compare rent with incentives

Question: Shop B rents at PHP 66,000 per month for 36 months with three rent-free months. Ignore escalation, timing and other lease terms. Find the total rent and simple average per month. Does this alone establish market rent?

Solution: Collected rent is PHP 66,000 × 33 = PHP 2,178,000. The simple average is PHP 2,178,000 ÷ 36 = PHP 60,500 per month. It does not alone establish market rent.

Reasoning: The calculation normalizes the supplied incentive. A complete rental analysis also considers terms, area, property characteristics and market evidence. Discounting would separately address when payments occur.

Case 7 Evaluate a restricted inspection

Question: The client forbids interior inspection of an old industrial building with a known unresolved structural concern. It asks the appraiser to assume the building is sound and certify IVS compliance. No adequate alternative evidence is available. What is the appropriate response?

Solution: Seek the investigation or specialist evidence needed to address the material concern, communicate the restriction's effect and revise the scope if possible. Do not issue an unsupported IVS compliance claim when the restriction prevents compliant work.

Reasoning: The limitation does not prove sound condition. Agreement to an unsupported premise cannot supply the missing evidence. A disclaimer does not replace the work required for the intended use.

Case 8 Separate a policy calculation from disposal value

Question: A fictional lender's teaching policy takes 75% of a stipulated PHP 16 million property value as a lending limit before other checks. The trainee calls the resulting amount liquidation value. Is that description established?

Solution: The policy calculation is PHP 16,000,000 × 0.75 = PHP 12,000,000. It establishes only the stipulated policy amount in the exercise. Liquidation or constrained-disposal analysis requires its own defined circumstances and evidence.

Reasoning: A lending policy percentage is not automatically a market disposal adjustment. The exercise does not assert that any actual bank uses this policy. Clarify the intended measurement instead of relabeling the product.

Case 9 Separate property value from owner proceeds

Question: Use a property value of PHP 15 million, teaching selling costs of PHP 450,000 and debt settlement of PHP 5 million. Ignore all other items. Compute simplified owner proceeds and state the property-value figure.

Solution: Simplified proceeds are PHP 15,000,000 − PHP 450,000 − PHP 5,000,000 = PHP 9,550,000. The supplied property value remains PHP 15,000,000.

Reasoning: The financing and cost reconciliation describes what remains after the stipulated deductions. It does not redefine the property value. Actual transaction proceeds may require additional liabilities, taxes and settlement information.

Case 10 Recognize that a completion subtotal is incomplete

Question: A stipulated completed-property scenario indicates PHP 25 million. Remaining construction cost is PHP 6 million. The analyst reports PHP 19 million as the independently supported current value of the unfinished project, without further analysis. What is missing?

Solution: PHP 19 million is the supplied subtraction subtotal. Further development analysis must address the relevant interest, completion scenario, timing, risk, additional costs and market evidence before presenting a supported current opinion.

Reasoning: A remaining-cost estimate and a completed-property scenario cover different conditions. The subtotal may be useful in a model, but the calculation alone does not establish the value of the actual unfinished interest.

18 Assignment definition worksheet

Complete the explanations on a separate sheet. Use the response lines for key points. The worksheet is an original training aid, not a prescribed engagement form. Allow about 40 minutes and keep the IVS edition visible in your notes.

1 Write the core assignment

Use the Harana facts. Write 100–150 words naming the client, intended user, refinancing purpose, ownership interest, valuation date, actual unfinished condition, proposed basis and essential investigations. Identify at least two matters still requiring evidence.

_____

_____

_____

2 Classify conditions and limitations

Classify and explain each statement: construction is assumed completed at the current date; an interior inspection is prohibited; a current survey is relied on for area subject to appropriate checks; a pending permission is assumed granted. State what fact or work restriction determines each classification.

_____

_____

_____

3 Prepare three scenario labels

Prepare separate labels for the actual unfinished interest at 30 September 2026, specified completion assumed at that same date, and an expressly requested future-date opinion at 30 June 2027. Explain which date or condition changes and what evidence is needed.

_____

_____

_____

4 Check the scope source

Using an official copy of IVS effective 31 January 2025, locate IVS 101 paragraphs 20.01–20.03. Identify the written scope and change requirements and the response to a restriction that prevents compliant work. Keep your notes in your own words and record the edition.

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Assignment worksheet continued

5 Compare market and investment models

Use PHP 1,200,000 income at 8% for one model. For another, add PHP 300,000 unique savings and use 7.5%. Calculate both indications and the difference. Explain why the figures should not be averaged into an unlabeled value conclusion.

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_____

6 Analyze a rental incentive

Calculate total rent and the simple monthly average for PHP 66,000 per month over 36 months with three rent-free months. If actual subject rent is PHP 45,000 and supplied market rent PHP 60,000, calculate the annual gap. Explain why neither calculation is a complete capital valuation.

_____

_____

_____

7 Respond to missing information

Harana withholds the material lease and rejects tenant enquiries. No adequate alternative is presently available. Write a short professional response identifying why the lease matters, what information or revised work is sought, and how the restriction affects a compliance statement.

_____

_____

_____

8 Reconcile amounts without relabeling

Compute simplified proceeds from PHP 15 million property value, PHP 450,000 selling costs and PHP 5 million debt settlement. Separately calculate PHP 25 million assumed completed value less PHP 6 million remaining construction cost. Explain what each resulting subtotal represents and what it does not establish.

_____

_____

_____

19 Review and essential distinctions

Distinction	What to remember
Client and intended user	Appointment and reliance are separately identified
Use and basis	The decision supported differs from the meaning of the amount
Property and company	A property interest is not automatically corporate equity
Date and condition	Changing an assumed condition need not change the date
Current and prospective	Present-date assumed completion differs from a future-date opinion
Market and investment	Identify whose benefits and objectives the model represents
Market and contract rent	A market rental exchange and an actual lease obligation can differ
Assumption and limitation	A premise used is distinct from unavailable work or evidence
Special assumption	Identify how the premise changes the actual date-specific facts
Disposal and lending policy	A percentage policy calculation does not establish a disposal value
Property value and proceeds	Debt and transaction-cost reconciliations need separate labels

Use these checks in a situational question

- Identify the decision and people who will use the opinion.
- Specify the subject interest date and actual condition.
- Name the requested value basis and its source.
- Compare the input perspective with that basis.
- Classify changed facts separately from information restrictions.
- Seek evidence or revised work that addresses the material defect.
- Label each calculation by what it actually represents.
- Explain the reason for the action you select.

Lesson 10 develops ethics, independence and responsibilities. Carry forward the assignment specification when examining conflicts, confidentiality and client pressure on the conclusion.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These 20 questions are newly authored learning exercises and are not actual or recalled PRC examination items. Use the dates, scenarios and assumptions supplied in each item.

1. A property company pays for an appraisal for its acquisition committee. A bank will later receive a copy. Which statement is best?

A. Payment by the company makes the bank an intended user automatically

B. The proposed bank use and reliance should be clarified and the work assessed for that use

C. Every person receiving a copy is covered by the original scope

D. Only the address on the report needs changing

2. The request says only “value the building by Friday.” Which item should be resolved before treating this as a defined appraisal assignment?

A. Whether to round the amount to three decimal places

B. Which cover font the client prefers

C. Whether the report uses a colored logo

D. The property interest date intended use and basis being requested

3. A current ownership interest is subject to a verified lease. A vacant-possession model ignores that lease. What is the first substantive issue?

A. The model may represent a different interest or condition from the assignment

B. The capitalization arithmetic is necessarily wrong

C. The model must use the seller’s preferred price

D. A lease always removes the land from the assignment

4. An unfinished building is valued at the current date assuming specified construction completed. Which classification best fits the changed condition?

A. A later report date

B. A confirmed existing fact

C. A special assumption requiring clear treatment and support

D. An automatic forecast of its future sale price

5. An inspection is prohibited. Which conclusion follows from that restriction alone?

A. The interior is assumed excellent as a matter of fact

B. An investigation limitation exists and its material effects need evaluation

C. The property must have zero value

D. Every subsequent premise is automatically a special assumption

6. Which combination most directly indicates an investment-value perspective in the supplied scenario?

A. Benefits unique to a particular buyer and that buyer's operational objectives

B. Typical buyer assumptions with no particular-owner benefits

C. The median of verified ordinary market transactions alone

D. The company's historical cost ledger alone

7. For teaching purposes PHP 1,200,000 annual income is capitalized at 8%. What is the indication?

A. PHP 9,600,000

B. PHP 96,000

C. PHP 1,296,000

D. PHP 15,000,000

8. An investor adds unique annual savings of PHP 300,000 to PHP 1,200,000 income and uses 7.5%. What is the supplied model indication?

A. PHP 16,000,000

B. PHP 11,250,000

C. PHP 20,000,000

D. PHP 15,000,000

9. An investor-specific indication is PHP 20 million and a market-based indication is PHP 15 million. The analyst averages them and labels PHP 17.5 million market value. What is the main objection?

A. The average lacks a defined measurement rationale and mixes different perspectives

B. Market value must always exceed investment value

C. Investment value is always an asking price

D. The addition is mathematically impossible

10. A lease has 36 months at PHP 66,000 per month, with the first three months rent free. Ignore discounting and other terms. What is the simple average over the full term?

A. PHP 66,000

B. PHP 60,000

C. PHP 63,250

D. PHP 60,500

11. Contract rent is PHP 45,000 monthly and supplied market rent is PHP 60,000 on specified terms. The ownership interest remains subject to the actual lease. Which response is best?

A. Replace contract income immediately with PHP 60,000

B. Deduct the monthly difference from land value without timing analysis

C. Analyze the actual lease and distinguish any separate hypothetical scenario

D. Report the rent gap as the tenant interest's capital value

12. A report is prepared in 2027 at a September 2026 valuation date. Permission granted in February 2027 is treated as unconditional permission existing in September 2026. What needs correction?

A. The report must always use today as the valuation date

B. The earlier rights and expectations must be investigated without importing the later approval as an earlier fact

C. Every later document must be discarded regardless of relevance

D. The valuation date is the date the approval document was downloaded

13. A financial reporting client requests fair value. Which response most appropriately establishes its meaning?

A. Ask the client to choose any amount it considers fair

B. Use the owner's minimum acceptable price

C. Use the outstanding loan balance

D. Identify the applicable accounting framework and authoritative measurement definition

14. Two identified parties request analysis of a transfer reflecting their respective interests. Which value perspective most closely corresponds to that description?

A. Equitable value

B. Automatic assessed value

C. Gross replacement cost

D. A universal forced-sale percentage

15. A fictional bank policy takes 75% of PHP 16 million as a lending limit. Which statement is supported by the supplied facts?

A. Liquidation value is independently verified at PHP 12 million

B. The policy amount proves market value is PHP 12 million

C. The policy product is PHP 12 million and requires its own label

D. Every disposal has a mandatory 25% reduction

16. A seller accepts a lower price than last year after normal marketing in a falling market. What can be concluded from those facts alone?

A. The transaction is necessarily a forced sale

B. The decline alone does not establish compulsion or inadequate marketing

C. The price must be discarded without investigation

D. The price must equal investment value

17. The subject is a property interest. During the engagement the client requests company equity value instead. What is the appropriate next step?

A. Deduct the mortgage and change the report heading

B. Keep all property assumptions and add the words share value

C. Use the construction budget as equity value

D. Assess the changed subject and agree an appropriate revised or separate assignment

18. Using PHP 15 million property value, PHP 450,000 selling costs and PHP 5 million debt settlement, what are simplified proceeds after the supplied items?

A. PHP 9,550,000

B. PHP 14,550,000

C. PHP 10,450,000

D. PHP 20,450,000

19. Material lease information is withheld and no adequate alternative evidence is available. The restriction prevents compliant work for the intended use. What should the appraiser do?

A. Issue compliance once the client signs a disclaimer

B. Use an advertised rent and omit the actual lease

C. Communicate the problem in writing seek an adequate scope and avoid an unsupported compliance claim

D. Claim that internal reports do not need any scope

20. A completed-property scenario is PHP 25 million and remaining cost PHP 6 million. Which statement is best?

A. PHP 19 million is automatically the current market value

B. PHP 19 million is a subtotal requiring further appropriate development analysis

C. The unfinished property must equal its historical cost

D. The cost estimate determines the value basis

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	C
2	D	12	B
3	A	13	D
4	C	14	A
5	B	15	C
6	A	16	B
7	D	17	D
8	C	18	A
9	A	19	C
10	D	20	B

1. B Identify the intended decision and user. An additional lending use may require further work and revised terms; receipt of a copy is insufficient.

2. D Those entries define the meaning of the opinion and influence the investigation. A deadline cannot supply them.

3. A Compare the assigned interest with the model's condition. Correct arithmetic can still answer the wrong subject.

4. C The assumed physical condition differs from the facts at the valuation date. A current-date completion scenario is not automatically a future-date forecast.

5. B A limitation describes unavailable investigation. Any condition premise requires separate analysis and support.

6. A The scenario identifies whose benefits and objectives drive the analysis. The basis must remain consistent with that perspective.

7. D Use the decimal rate: PHP 1,200,000 ÷ 0.08 = PHP 15,000,000. The arithmetic does not validate the inputs.

8. C Total modeled benefit is PHP 1,500,000. Divide by 0.075 to obtain PHP 20,000,000 and retain the investor-specific label.

9. A The issue is the meaning of the combined amount. Correct averaging does not create an appropriate basis.

10. D There are 33 paying months. PHP 66,000 × 33 ÷ 36 = PHP 60,500. This is the stated simple average, not a complete market-rent opinion.

11. C The existing contractual position belongs in the actual-interest analysis. A gap alone is not a capital valuation.

12. B Later evidence can assist investigation, but the subsequent event does not itself establish the earlier legal condition.

13. D Fair value is source-sensitive. IFRS 13 uses a market-participant measurement framework; recognition and other accounting questions still need the applicable standards.

14. A The identified parties and their respective interests point to the equitable-value perspective. It differs from IFRS fair value and a general market exchange.

15. C The multiplication establishes the teaching policy amount only. A disposal opinion needs defined circumstances and evidence.

16. B Investigate the actual constraints and transaction circumstances. Falling market prices do not alone prove a forced sale.

17. D Company equity can involve other assets, liabilities and corporate rights. A property opinion cannot be converted through an unexplained deduction.

18. A Subtract both supplied deductions: PHP 15,000,000 − PHP 450,000 − PHP 5,000,000 = PHP 9,550,000. The property value remains separately labeled.

19. C Address the material restriction. Client consent and report wording cannot supply the missing investigation.

20. B The subtraction is correct, but interest, conditions, timing, risks and other relevant costs still need appropriate analysis.

Assignment worksheet solutions

1. An acceptable answer identifies Harana as client, Meridian Bank as the named intended user for the agreed lending consideration, current refinancing support as purpose, the defined ownership interest subject to established rights, and 30 September 2026 as valuation date. It requests a market-value opinion in the actual unfinished condition. Relevant investigations include identity and rights, lease terms, physical progress, permissions and market evidence. The current lease and completion status require adequate evidence; an address and construction budget cannot settle them.

2. Assumed completion at a date when the building is unfinished is a special assumption. Prohibited interior inspection is a limitation. Reliance on a current survey may involve an ordinary area premise consistent with the facts, provided its reliability and suitability are assessed. Assuming pending permission already granted changes a current fact and is a special assumption. The known facts and the nature of the restriction determine classification; labels do not establish support.

3. Label the first current-date ownership interest in its actual unfinished condition. Label the second separately as current-date market value under the specified completion special assumption. Label the third as a prospective opinion at 30 June 2027 with defined anticipated condition and forecast dependencies. The first and second share a date but differ in condition. The third introduces a future date and future market considerations.

4. Use IVS 2025, IVS 101 paragraphs 20.01–20.03. The scope and changes require written agreement before completion; a scope that prevents compliant work does not support an IVS-compliant outcome. Communicate the problem in writing and seek an adequate scope. Read the complete clause rather than treating this answer as its replacement.

5. PHP 1,200,000 ÷ 0.08 = PHP 15,000,000. PHP 1,500,000 ÷ 0.075 = PHP 20,000,000. The difference is PHP 5,000,000. The investor model includes particular benefits and objectives. An average of PHP 17.5 million has no defined measurement rationale in the exercise. The stipulated assumptions need real evidence before practical application.

6. PHP 66,000 × 33 = PHP 2,178,000 collected rent. Divide by 36 for PHP 60,500 per month. The actual-versus-supplied-market annual gap is (PHP 60,000 − PHP 45,000) × 12 = PHP 180,000. The first normalizes supplied cash rent without discounting; the second is an annual difference. Lease terms, timing, subject rights and evidence are needed for further valuation.

7. Example response: “The requested opinion concerns the ownership interest subject to the lease. Its material rent, term and obligations affect the benefits being valued. Please provide the executed lease and relevant amendments, or agree an adequate method for establishing that information. We will assess any alternative evidence and the effect on the agreed work. If the restriction prevents an IVS-compliant valuation for the intended use, we cannot issue the requested compliance statement. Please confirm the revised information and investigation arrangements in writing.”

8. Simplified owner proceeds are PHP 9,550,000 after the supplied deductions. They are distinct from the PHP 15 million property-value figure and ignore other transaction items. The completion subtotal is PHP 19 million. It subtracts remaining construction cost from a stipulated completed scenario; it does not independently establish current unfinished value. Further appropriate development analysis is necessary.

22 Sources and examination preparation status

The current IVS source was checked directly for scope, basis and assumption concepts. The older IVSC website glossary is used only for the selected stable terms cited in this lesson; its historical clause numbers and liquidation entry are not used as the current reference. All cases, engagement examples, calculations and questions are original educational work.

The curriculum identifies PVS third edition 2025 incorporating IVS 2025 through official BLGF indexed publication text. The full national PDF was unavailable in the earlier verification. Exact Philippine guidance clauses and national order effectivity still require checking the full publication for an actual application. International references here do not independently establish every Philippine adoption requirement.

No 2027 PRC examination program, detailed topic weighting or future standards adoption is asserted. This lesson follows the established curriculum topic and checked professional concepts. Verify later official issuances before the 2027 examination.

1 Checked current international text

International Valuation Standards Council. IVS effective 31 January 2025, published 31 January 2024. Primary text hosted by SAICA. Study locations: IVS 101, especially 20.01–20.03; IVS 102 sections 50 and 60, and Appendix A20, A60 and A120. Read the full applicable text for actual work. This lesson does not reproduce a standards manual.

https://saicawebprstorage.blob.core.windows.net/uploads/resources/IVS-effective-31-January-2025.pdf

2 Selected terminology

IVSC. Standards glossary. Public website glossary with historical IVS chapter references. Used for concise explanations of market value, investment value, market rent, equitable value and forced-sale circumstances. The checked 2025 publication governs current chapter references and revised concepts.

https://ivsc.org/standards-glossary/

3 Financial reporting measurement

IFRS Foundation. IFRS 13 Fair Value Measurement, official overview. Identifies the market-participant exit-price framework and application through relevant accounting standards. This is conceptual context, not a full financial-reporting instruction.

https://www.ifrs.org/issued-standards/list-of-standards/ifrs-13-fair-value-measurement/

4 Philippine statutory context

Republic Act No. 12001, 13 June 2024. Real Property Valuation and Assessment Reform Act. Sections 4 and 13 on valuation terms and PVS. Primary statutory text reproduced by Lawphil. No teaching assessment level is asserted as an actual property rate.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

5 Professional discussion of scope and reliance

RICS Property Journal. Jonathan Fothergill. When is a figure a valuation Understanding scope purpose and basis under Red Book, 1 May 2026. Primary professional discussion used for the narrow point that an indicative label alone does not determine the substance of advice. RICS obligations are not assumed to apply to every Philippine practitioner.

https://ww3.rics.org/uk/en/journals/property-journal/when-are-figures-valuations.html

6 Philippine publication for further checking

BLGF. Philippine Valuation Standards third edition 2025, incorporating IVS 2025 and Philippine guidance. Official publication location previously identified; full national clause and order-effectivity checks remain necessary.

https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

REALEX

Lesson 10

Ethics Independence and Professional Responsibilities

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

A trustworthy appraisal requires honest evidence, competent work and judgment that can withstand pressure. This lesson teaches you to identify conflicts, evaluate meaningful safeguards, protect information and respond when a client requests an unsupported conclusion.

The fictional Harana refinancing assignment from Lesson 9 provides a continuing study case. Newly supplied facts explore financial interests, outcome incentives, specialist reliance and a report correction. All explanations, cases and questions are original educational material. Figures are stipulated teaching assumptions, rather than verified market evidence or prescribed fees.

The source notes distinguish checked statutory and international principles from practical recommendations and the official clause checks still needed. This is examinee study material, not a reproduction of protected review materials or a complete professional compliance manual.

Your learning goals

- Explain integrity objectivity impartiality and independence.
- Identify six categories of threat and connect them to case facts.
- Evaluate conflicts and whether a safeguard actually addresses the threat.
- Distinguish work-based payment terms from outcome incentives.
- Respond to pressure while remaining open to relevant new evidence.
- Protect confidential information and recognize disclosure authority checks.
- Recognize personal-information risks in digital working practices.
- Assess competence specialist assistance and due care.
- Explain added responsibilities in public service.
- Handle errors and communicate revisions responsibly.

Study plan: Allow about four hours in two sessions. Read sections 1–8 first and sections 9–16 next. Attempt the ten worked cases, complete the ethics worksheet and take the 20-question test. Check a full official code when studying an exact clause.

1 Ethical judgment in an appraisal assignment

An ethical appraisal starts with the way the question is accepted and continues through the way the conclusion is communicated. A sound calculation cannot repair invented evidence, a concealed personal interest or a report deliberately written to mislead its reader. The appraiser must be able to explain why the work answers the agreed question and why the conclusion follows from the evidence.

Lesson 9 established the client, intended user, property interest, valuation date and basis of value. Lesson 10 asks whether the people and circumstances around that assignment allow trustworthy judgment. Keep both inquiries together. A clearly described assignment can still be compromised by a fee that rewards a predetermined result. An honest appraiser can still produce inadequate work if the scope excludes information that matters.

The professional anchors

RA 9646 assigns ethical regulation to the Board and allows professional discipline for specified misconduct after notice and hearing. Sections 5(f), 19 and 35 provide the statutory anchor. [1] The PRC-hosted code identifies responsibilities to the public, government, clients, fellow practitioners and the professional organization. Its indexed text identifies Resolution No. 39, series of 2019. [2]

IVS 100 connects ethical conduct, competence, professional scepticism and quality controls with valuation work. [3] The IVSC ethical code supplies a useful framework for recognizing threats to judgment; it does not replace Philippine law or an applicable local code. [4] In this lesson, the detailed examples and response sequences are original teaching applications. They are not quotations or a reproduction of either code.

Consider a fictional appraiser, Lea, engaged by Harana Development Corporation. Meridian Bank is an identified intended user for refinancing consideration. The subject is Harana's ownership interest in a site and unfinished building, with established rights to be investigated. The requested opinion is market value in the actual condition on 30 September 2026. A director asks Lea to ensure that the report supports a PHP 30 million figure because the project needs funding.

The director's funding problem explains the pressure. It does not establish the market value. Lea can examine relevant evidence, explain a defensible result and consider a separately defined scenario where appropriate. She cannot turn a financing requirement into an input merely because the client considers it essential.

What a good examination answer does

A good ethics answer identifies the relevant fact, explains how it could affect judgment and selects an action that addresses the problem. "Be honest" is a principle, but it is incomplete as an answer to an undisclosed ownership interest. State who has the interest, what decision it could influence, what must be checked and whether an acceptable arrangement remains possible. Ethical judgment becomes useful when the response is specific enough to act on.

2 Integrity and truthful representation

Integrity concerns the accuracy and honesty of professional conduct. In an appraisal, it affects what the appraiser says was inspected, where evidence came from, what assumptions were used and what work supports the conclusion. Misrepresentation can occur in a sentence or a spreadsheet as readily as in a signed certification.

Suppose a client supplies a photograph labelled “inspection on 7 October.” Lea did not visit the property on that date. The photograph can be evaluated as supplied information, with its origin and relevance considered. Lea should not describe it as a photograph she took during her own inspection. The property in the picture may be correct, yet the statement about who observed it would still be false.

The same discipline applies to sales evidence. An advertisement is not a verified completed sale. A broker’s recollection is not a registered instrument. An unsigned lease proposal is not an executed lease. These sources may help an investigation, but they carry different evidential weight. Preserve the distinction when recording them and when explaining the analysis.

Omission can mislead

A report can contain individually correct statements and still give a misleading overall impression. Imagine that the building’s ground floor is occupied under a lease and construction remains incomplete above it. A report that presents only a completed, vacant scenario without clearly explaining that changed condition may lead a reader to assume the opinion describes the actual property.

The examinee should ask what the reasonable intended reader would understand. If an assumption changes a material fact, placing it where it can be understood matters. A technically accurate footnote is weak communication if the main conclusion encourages a different interpretation. Avoid solving a misleading presentation by adding more ambiguous language.

Correct uncertainty without inventing certainty

Lea receives two different floor-area figures. One is 1,800 square metres gross floor area; the other is 1,450 square metres described as rentable space. These may measure different things rather than indicate that one source is dishonest. Lea should establish definitions and supporting records before selecting an input.

Integrity does not require the appraiser to pretend every fact is already settled. It requires a truthful account of the evidence available, the inquiries made and the effect of unresolved matters. In a case question, distinguish an innocent discrepancy needing investigation from a deliberate falsification. The response should fit the facts stated.

When you review your own work, read the statements beginning “I inspected,” “I verified,” “the records show” and “the report complies.” Each makes a claim about work or evidence. Confirm that the file supports that claim. A preferred wording does not create a missing inspection, missing record or missing compliance procedure.

3 Objectivity impartiality and independence

Objectivity concerns the way judgment is formed. The analysis should respond to relevant evidence and the defined question. Impartiality concerns fair consideration without favoring an interested party. Independence concerns the relationships and arrangements that could constrain or appear to constrain that judgment. These concepts are related, but they are not interchangeable.

An external appraiser can be paid by the owner and still be expected to form an objective opinion. Payment identifies a commercial relationship; it does not entitle the owner to dictate the result. An employed appraiser also has to consider whether reporting lines, incentives and other responsibilities affect the assignment. The word “external” alone does not settle independence, and the word “employee” alone does not establish that every internal valuation is prohibited.

Suppose Lea's firm provides several services to Harana. One team prepares development budgets; another values the property. The existence of separate teams is a fact to evaluate. Ask whether they share managerial control, incentives, confidential information or responsibility for decisions being reviewed. A different team name is a weak safeguard if the same manager can require the same unsupported figure from both teams.

Independence depends on the applicable requirement

Some assignments impose specific eligibility or independence conditions through law, regulation, contract or the intended user's requirements. Establish those conditions before acceptance. If an assignment expressly requires an appraiser without a specified financial relationship, the parties cannot cure a prohibited relationship merely by acknowledging it.

For a learning case without an express prohibition, analyze the threat and possible response. Do not assume either that every relationship requires withdrawal or that disclosure always permits continuation. A material financial interest in the subject can be more difficult to address than a minor administrative connection unrelated to the outcome. The nature of the interest and the use of the opinion matter.

Disagreement does not prove bias

Lea's conclusion differs from the client's expectation. That discrepancy is not evidence that she is biased against the client. Conversely, a conclusion matching the client's expectation is not proof of objectivity. Review the evidence, input selection, assumptions and reasoning rather than inferring ethics from whether a party likes the answer.

The professional can listen carefully to a client's challenge. If the client supplies a relevant executed lease omitted from the file, reviewing it may improve the opinion. If the client supplies only a desired loan amount, increasing the value to match it would replace evidence with a target. The skill is to distinguish a legitimate request for reconsideration from an attempt to control the conclusion.

4 Recognizing threats to professional judgment

The IVSC ethical framework describes six threat categories: self-interest, self-review, client conflict, advocacy, familiarity and intimidation. More than one can arise in a case. [4, Appendix 1] Use the terms to organize the facts; do not treat them as diagnoses that automatically determine every outcome.

Self-interest is easy to see when Lea personally owns shares in Harana and the financing decision could affect her investment. It can also arise through a payment arrangement or dependence on future work. The relevant question is how her own benefit could influence acceptance, evidence selection or the conclusion.

Self-review arises when the current work requires judging earlier work in which Lea or her firm had a role. Suppose Lea prepared the optimistic occupancy assumptions used in Harana's acquisition proposal. She is later asked to assess whether those assumptions remain supportable. She may be reluctant to recognize their weaknesses because the current conclusion reflects on her earlier advice.

Client conflict arises when duties owed to different clients pull in opposing directions. Assume the same small team holds confidential acquisition advice for a purchaser while the owner asks it to advise on the purchaser's negotiating position. The issue includes whether the team can perform each role without misusing the other client's information. Consent should be informed; it cannot be meaningful if describing the conflict would itself reveal protected information.

Advocacy becomes a threat when promoting a party's position interferes with fair analysis. Lea can explain the reasons supporting her opinion in a meeting. That differs from being instructed to select evidence solely to

defeat the other party. Explaining a supportable conclusion is part of professional work; constructing a predetermined result to help a party win compromises the appraisal.

Familiarity can grow through a long relationship. A trusted project manager's figures may stop receiving the scrutiny given to unfamiliar sources. Intimidation can arise through threats of lost fees, dismissal, complaints or exclusion from future appointments. A demand may combine the two: "We have worked together for years; do this or the relationship ends."

Name the threat that fits the stated fact

In an MCQ, use the clearest stated fact. A bonus tied to a value threshold principally creates self-interest. A threat to dismiss the appraiser principally creates intimidation. Reusing one's own earlier unsupported assumptions principally creates self-review. If the question permits several threats, explain the overlap; if it asks for one best classification, avoid replacing the specific trigger with a generic label.

Do not infer facts the question does not provide. Knowing a director socially does not establish a personal shareholding. A revised conclusion does not establish intimidation unless the circumstances support it. Clear classification starts with careful reading.

Threat	Decisive fact in an original example
Self-interest	A financial interest or bonus benefits from a particular result
Self-review	Current work evaluates the person's earlier assumptions
Client conflict	Duties to different clients pull in opposing directions
Advocacy	Promoting a party's position compromises fair analysis
Familiarity	A close relationship reduces scrutiny of information
Intimidation	A threat pressures the professional to abandon objective judgment

5 Evaluating conflicts and meaningful safeguards

After identifying a threat, assess its seriousness and whether an effective response is available. The IVSC framework calls for declining or discontinuing an assignment when threats cannot be eliminated or reduced to an acceptable level. [4, paras. 15–16] The sequence below is an original study method for applying that concept, subject to any stricter rule governing the assignment.

First identify the relationship or interest precisely. "There might be a conflict" is less useful than "the proposed signing appraiser owns a financial interest in the borrowing company." Establish who holds the interest, whether it can benefit from the decision and what part of the work the person controls.

Next establish the governing conditions. Check the actual rule and engagement rather than relying on a client's assurance that the relationship is acceptable. A mandatory exclusion takes priority over a convenient arrangement. Do not move immediately to consent when the applicable requirement does not permit the relationship.

Then consider a response directed at the identified threat. Removing a conflicted person from the assignment may address a personal interest if they have no remaining control over the work. A qualified reviewer may

help expose unsupported assumptions. Separating access to confidential files may help prevent one team from using another client's information. Each response must be assessed in the circumstances.

A safeguard needs a mechanism

Suppose Lea owns shares in Harana, sets the fee and controls the final report. Asking a junior colleague to initial the spreadsheet does little to address her financial interest or authority. The reviewer lacks both independence from Lea and the ability to require a correction. Calling the procedure "peer review" does not make it effective.

Compare that with referring the engagement to a suitably qualified firm without the identified interest and without Lea controlling its conclusion. That can remove the particular personal threat from the new engagement. The receiving firm must still perform its own acceptance checks. A referral is not a declaration that the new work will automatically meet every requirement.

Disclosure is necessary in some cases but insufficient by itself

A useful disclosure describes the material fact and its implications so that the relevant person can evaluate it. Vague statements such as "normal business relationships exist" may hide the very fact needing attention. Equally, disclosure should not unnecessarily reveal another client's protected information.

Document the decision and revisit it when facts change. A conflict check made before engagement may become outdated if the appraiser later acquires an interest, takes an additional role or learns who ultimately benefits from the transaction. Continuing work calls for reconsideration at that point. In a situational answer, identify the next action rather than treating the initial approval as permanent permission.

6 Fees incentives gifts and commercial pressure

A professional fee can reflect the time, expertise, investigation and responsibility needed for an assignment. Agreeing those terms helps the appraiser plan adequate work. A fee does not make a report objective by itself; its structure can also create pressure on the conclusion.

Consider two fictional proposals. Proposal A pays PHP 50,000 for the agreed investigation and report, regardless of whether the supported value meets a financing target. Proposal B pays PHP 20,000 plus PHP 80,000 only if the reported value reaches PHP 30 million. Proposal B gives the appraiser a direct personal incentive to meet the threshold. For this lesson's independent appraisal case, refuse that result condition and seek terms that pay for the work performed.

Do not assume that the PHP 50,000 figure is a prescribed or recommended professional rate. All amounts here are teaching assumptions. The ethical comparison concerns the payment trigger. A fixed fee can still be inadequate to support required work; a higher fee can still be attached to an improper condition.

Distinguish a work milestone from an outcome condition

A payment upon delivery of the agreed report is different from a payment only when the client receives its desired value or loan approval. Read the contract carefully. The first can describe an administrative milestone. The second can reward a particular outcome even where the appraiser's task is to provide an objective opinion.

Late payment also needs care. Lea should use legitimate contractual processes to address an unpaid invoice. She should not promise to revise the value in exchange for payment, suppress a known material error because

the account is overdue or circulate confidential documents to embarrass the client. A payment dispute and the reliability of professional work need separate handling.

Gifts and hospitality

An expensive holiday offered by a client during appraisal creates a different concern from reimbursement of agreed, necessary travel costs. In the exercise, ask who benefits, when the benefit is offered, whether it is linked to an outcome and what applicable law and policy require. Do not invent a universal peso threshold below which every gift is acceptable.

Government roles carry additional statutory restrictions discussed in section 12. A private firm's hospitality policy does not authorize what public-service law prohibits. Equally, a client's description of a gift as a custom does not settle its permissibility.

Commercial pressure can be indirect. A firm may depend heavily on one client, even when each assignment has a fixed fee. Recognize the incentive to avoid disappointing that client. Acceptance procedures, appropriate review and management support for defensible conclusions can help; they must operate in practice. A statement of independence is weak if staff are punished for reporting supported results below the client's target.

Teaching fee term	Professional issue to assess
PHP 50,000 for agreed work	Adequacy of resources and all other acceptance conditions
PHP 80,000 bonus for a value threshold	Personal incentive to produce the threshold result
Payment on agreed report delivery	Work milestone rather than necessarily a value condition
Payment only after desired loan approval	Outcome incentive requiring specific consideration

7 Responding to pressure on the appraisal conclusion

When a client challenges an opinion, establish what is being challenged. Is there a factual error, new relevant evidence, a different intended use, a requested scenario or simply a demand for a higher figure? The response depends on that distinction. It is good professional practice to reconsider a genuine defect; it is poor practice to adjust inputs merely to deliver a promised outcome.

Harana's director says that PHP 30 million is needed for refinancing. Lea's simplified teaching model produces PHP 15 million from an annual income input of PHP 1.2 million divided by 8%. These inputs are stipulated for this exercise; they are not researched market evidence. The director suggests replacing 8% with 4% because PHP 1.2 million divided by 4% produces PHP 30 million.

Both arithmetic operations are correct. The ethical and analytical problem is the reason for selecting the rate. A target derived from the financing need does not establish that 4% represents the required valuation perspective. Lea should request relevant support for any proposed change and assess it against the assignment. If no support exists, she should retain the evidence-based analysis rather than manipulate the model.

A useful original response

Lea can write: “The requested financing figure does not establish the property value. I will review any relevant records or market evidence you provide and correct an identified error. I cannot select inputs solely to obtain the requested amount. If you need a separate completion scenario, its condition, date and assumptions must be clearly agreed and reported.”

This response explains the problem and leaves room for legitimate work. It does not accuse the client of a crime or treat every disagreement as misconduct. If pressure continues, Lea should consider whether a supportable assignment remains possible, use the appropriate escalation route and, where necessary, decline or discontinue the work with proper attention to contractual and legal obligations.

Keep a proportionate record

Record the material request, evidence received, review performed and response. Use factual wording. “The director requested a PHP 30 million conclusion without providing supporting evidence” is more useful than “the director is dishonest.” The first can be checked against the communication; the second makes a broader accusation not established by the stated facts.

The appraiser should also avoid secretly preparing two incompatible reports for the same actual-condition question to satisfy different readers. A legitimate revised report should identify the change and its reason. Different scenarios can be analyzed, but they need distinct descriptions. Protecting independence includes protecting the reader’s understanding of what the amount represents.

8 Confidentiality and permitted disclosure

Confidentiality concerns information obtained through professional relationships and the authority to use or disclose it. The IVSC ethical principle allows for proper authority and applicable legal or professional rights or duties; it is not an absolute instruction to conceal everything in every circumstance. [4] An appraiser should establish the relevant disclosure basis rather than infer it from convenience or curiosity.

Harana supplies tenant names, lease payments, bank details and correspondence about a rent dispute. Lea needs some information to analyze the property interest. Meridian Bank is an intended user of the report under the engagement. That does not automatically mean every raw document or personal detail should be sent to every bank employee.

An original practical response is to identify the agreed recipient, the purpose of the request and the information necessary for that purpose. Confirm the authority to disclose and the appropriate secure channel. The appraisal report may explain a material lease without attaching bank-account details irrelevant to understanding the opinion. The scope, applicable law and legitimate requests can require different treatment; use judgment rather than a blanket rule.

Requests from third parties

A prospective buyer asks Lea for Harana’s unpublished rent schedule. The buyer says the information will help it make an offer. That explains why the buyer wants it; it does not establish authority to release it. Lea should seek a lawful and appropriate disclosure basis or decline the request. She should not barter the schedule for additional market evidence.

A regulator or court-related request requires a different inquiry. Verify the requester, legal instrument, scope and deadline. Seek appropriate legal or professional guidance where needed and preserve records. Do not

assume an ordinary email from someone claiming official status has the same force as a valid compulsory process. Conversely, do not use client confidentiality as an automatic reason to ignore a lawful obligation.

Confidentiality and evidentiary privilege

An ethical duty to protect information and a legal evidentiary privilege are different questions. Do not assume that calling a file “privileged” establishes that it can be withheld from a court or regulator. That requires analysis of applicable law and the particular communication. This lesson does not assert a blanket immunity for appraisal files.

Lea can also breach confidentiality by using information rather than disclosing it. If she learns privately that a neighbouring parcel will soon be offered cheaply, buying it for herself or helping a friend exploit that knowledge raises a professional concern. In an ethics question, look beyond whether a document was forwarded. Ask whether professional access was used to create an unauthorized personal advantage.

9 Personal information and digital working practices

An appraisal file may contain personal information even when the subject is a commercial property. Examples include tenant identities, identification documents, signatures and personal contact details. RA 10173 addresses personal-information processing, lawful grounds, security and accountability. Consent is not its only lawful ground; the applicable ground depends on the information and circumstances. [5, secs. 11–13, 20–21]

Confidential business information and personal information overlap but are not identical. A company’s unpublished acquisition strategy can be commercially confidential without every part identifying a natural person. A tenant’s identification document can require protection even if the appraiser regards it as routine administration. Recognize which issue the case raises before deciding what information can be used.

Collect what the assignment needs

For an ordinary analysis of lease income, the team might need the rent, term, incentives, obligations and relevant occupancy facts. It should question whether storing unrestricted copies of every tenant’s personal identification is necessary for that purpose. This is an original practical application, not an exhaustive data-privacy compliance procedure. Actual processing may require additional records for a lawful purpose.

Use a comparable inquiry before sending material to a digital service. What does the tool retain? Who may access the information? Is the use authorized under the applicable arrangements? Can the task be completed with a fictional or appropriately minimized example instead? Removing a name alone may not prevent identification when the remaining facts point to a particular person or property.

Suppose Lea wants a drafting tool to summarize a lease. Uploading the complete lease, tenant identity documents and banking instructions to an unapproved service is not justified merely because it saves time. A practical alternative is to use a properly authorized environment and provide only the information needed, with appropriate protections. For educational content, newly authored fictional cases avoid the need to expose actual client files.

Protect records and respond to mistakes

Restrict access to people with a legitimate role, check recipients before transmission and keep versions distinguishable. When a file is sent to the wrong person, try to contain further disclosure promptly, preserve what happened and follow the applicable response process. Do not erase the incident to avoid embarrassment.

A mistaken disclosure does not establish every legal notification obligation by itself. Applicable requirements depend on the facts and current rules. This lesson therefore gives no universal breach deadline or claim that every error must be reported to every recipient. The examinee's immediate task is to recognize the risk, contain it and obtain the competent guidance needed for the specific situation.

Digital convenience changes the speed and reach of disclosure. It does not remove the professional's responsibility to consider whether information may be used. Before pressing send, establish the recipient and the purpose as carefully as you establish a valuation date.

10 Competence due care and specialist assistance

Competence requires more than having a professional title. The appraiser needs the knowledge and practical capability relevant to the subject, purpose and work. Due care concerns applying that capability diligently. A competent person who rushes through a material inquiry can still produce inadequate work.

Lea has experience with ordinary residential and retail property. Harana asks her to value the property together with specialized cold-storage machinery and an operating business. That expands the subject and the skills required. She should identify the work she can perform competently, establish the additional expertise needed and agree an appropriate arrangement. An ordinary building comparison does not become a machinery or business analysis by changing the report title.

IVS 100 permits specialist assistance subject to agreement and disclosure, assessment of the specialist and a reasonable basis for reliance. [3, sec. 30] Specialist involvement should address a defined gap. A structural engineer can investigate structural condition. A legal adviser can advise on a legal issue. Neither role automatically supplies the market evidence needed for the appraiser's valuation conclusion.

Understand the contribution before using it

Suppose an engineer estimates PHP 2 million for specified remedial works. Lea should understand the scope, date, exclusions and uncertainty of the estimate. The figure may not include lost rent, delay, fees or other consequences. It may also differ from what market participants would reflect in a price. Applying the number mechanically as a universal value deduction can produce an unsupported result.

The same care applies to a surveyor's area, a cost engineer's budget and a property manager's rent schedule. Determine what each source measures. Ask whether it is current, relevant and sufficiently reliable for the intended use. A professional signature matters, but it does not make every number answer the same question.

Time and resources are part of acceptance

A two-day deadline may be unrealistic for a complex assignment requiring access, specialist investigation and market research. Discuss the work and delivery date before promising completion. If adequate work cannot be performed, revise the arrangements or decline the assignment. Calling the resulting report "preliminary" does not repair unsupported representations about the work completed.

Training also requires truthful boundaries. A trainee may assist with supervised research or calculations without pretending to possess the authorization or competence of the responsible appraiser. The responsible professional should examine the actual work and remain clear about who performed which task. A signature should follow sufficient involvement and review, rather than act as a substitute for them.

11 Evidence professional scepticism and bias in analysis

Professional scepticism is a questioning approach to evidence and explanations. It does not require hostility toward the client or an assumption that every source is false. It asks the appraiser to test important information, investigate inconsistencies and recognize when a preferred conclusion may be influencing the inquiry.

Harana submits six sales. Two have particularly high stated amounts and incomplete descriptions. Four have lower amounts and more complete records. Lea should not discard the four lower observations because they make the financing target difficult. She should investigate the subject interest, date, included assets, terms and comparability of all relevant observations. Evidence quality and relevance supply reasons for selection; desired results do not.

Recognize anchoring and confirmation

Anchoring occurs when the first or most prominent number influences later judgment too strongly. A client's PHP 30 million expectation can become an anchor even if the appraiser intends to remain fair. One practical response is to define the assignment and record independent evidence before treating the expectation as useful market information.

Confirmation bias occurs when the appraiser notices and accepts information supporting an existing belief while discounting contrary information without sufficient reason. If Lea believes the area is becoming commercially attractive, she may pay more attention to successful new shops than to vacancies and weak demand. A balanced investigation should consider evidence that could change the initial view.

These are teaching explanations of reasoning risks, not a claim that a particular bias proves professional misconduct. The same observable mistake can arise through misunderstanding, poor records or pressure. Identify and correct the analytical problem before making accusations about motive.

Quality review must examine the reasoning

A useful review asks why the data were selected, what assumptions affect the result and whether the conclusion follows. Checking formulas alone will miss a completed-building input used for an unfinished subject. Checking the spelling alone will miss a retained tenant lease that the cash flow ignores.

In an original review exercise, Lea's colleague finds that a rent input came from an unexecuted proposal. The reviewer should ask Lea to establish its status and revise the analysis where needed. The review note should identify the defect and its effect, without dictating a replacement conclusion merely to suit management.

Keep the file capable of explaining the decision. A short record stating why a sale was excluded can be more useful than a large folder of unlabelled downloads. Documentation should preserve the connection between evidence and judgment. It need not record every trivial conversation, but it should support material decisions a competent reviewer would need to understand.

12 Responsibilities in government and public service

A government appraiser or assessor may face professional obligations and additional public-service duties. RA 6713 emphasizes public interest and restricts specified interests, outside activities, misuse of confidential information and gifts connected with official functions. [6, secs. 4 and 7] The details depend on the statutory conditions; a private firm's informal approval does not replace them.

Consider a fictional municipal employee who participates in appraisal and assessment work. A developer offers a private consulting payment while its property is undergoing official review in the same office. The employee should recognize the conflict between the private benefit and the public function, avoid accepting the problematic arrangement and obtain the appropriate compliance guidance. The developer's promise that "nobody will know" increases concern rather than resolving it.

Apply the role and authority

Public appraisal and taxation decisions must follow the applicable powers and procedures. A politician's preferred revenue figure is not market evidence. A property owner's hardship may call for consideration through lawful mechanisms, but it does not justify secretly changing valuation inputs or suppressing relevant property facts.

RA 12001 emphasizes valuation based on standards and separately recognizes assessment and taxation concepts. [7] Carry forward the distinction from earlier lessons. A value estimate, an assessment level and a tax rate answer different questions. Mixing them to conceal a policy decision undermines clear administration.

Suppose a simplified exercise uses PHP 10 million as a stipulated market value and 20% as a stipulated assessment level. The assessed value is PHP 2 million. Those teaching figures do not establish the actual level for a particular property. If an official seeks a PHP 1 million assessed amount, the proper inquiry is the applicable law, classification, level and evidence. Reducing the market value merely to reach that amount would hide the true reason for the change.

Treat people consistently

Courteous service includes explaining the relevant process without promising special treatment. Two owners with equivalent cases should not receive different evidential treatment because one has political connections. Professional fairness still allows differences that the actual law and facts require; equality of treatment does not mean every property must receive the same value.

Information learned in public office also requires careful handling. An employee should not use an unpublished official plan to benefit a private buyer. A later move into private practice does not automatically remove every continuing restriction. For an actual engagement, check the applicable conditions and current guidance rather than guessing from a general ethics slogan.

In a government ethics question, begin by identifying the official function and proposed benefit. That determines which additional rules may matter. Do not assume a practitioner's professional licence authorizes all outside employment or all uses of official information.

13 Duties to clients colleagues and the profession

Professional responsibilities extend beyond the person paying the invoice. The PRC code's identified stakeholder groups include the public, government, client, fellow practitioners and the professional organization. [2] The original examples in this section explain how those relationships arise in ordinary appraisal work without reproducing the code's detailed clauses.

For the client, useful service starts with a clear explanation of the work, timing and limitations. Lea should distinguish what her opinion can support from what remains a lender's decision. An appraisal does not promise loan approval. If necessary documents are missing, explain their relevance promptly rather than waiting until the agreed delivery day to announce an avoidable problem.

For intended users and the public, the report needs a conclusion that can be understood within its stated conditions. A professional cannot knowingly encourage reliance on a current-condition figure when the analysis assumes completion. Public responsibility does not authorize indiscriminate release of confidential files; it calls for trustworthy conduct within the applicable rules.

Critique another practitioner's work fairly

Lea reviews another appraiser's report and finds a date mismatch between the sales analysis and the stated valuation date. Her review should identify the mismatch, explain why it matters and consider whether further information resolves it. A different conclusion is not, by itself, proof that the other appraiser acted dishonestly.

Avoid substituting personal attacks for analysis. A review saying "the valuer is incompetent" gives less useful information than a review explaining that two observations include business assets while the subject is a property interest. The second identifies an issue that can be investigated and corrected. Strong professional criticism can be direct without making unsupported allegations about character.

Represent your own role accurately

A professional should describe experience, qualifications and services truthfully. A newly qualified practitioner should not claim specialist experience based solely on attending an introductory seminar. A team should not describe a trainee as the signing licensed appraiser. Detailed licensing and practice requirements are developed in Lesson 11; the ethical point here is to avoid misleading representations about authority and capability.

For educational and professional development, share knowledge responsibly. Teaching can use fictional facts and original questions without exposing client records or reproducing protected review materials. Professional generosity does not remove confidentiality or publication obligations.

Keep fee and employment disputes separate from deliberate obstruction of another professional's legitimate work. Where a disagreement requires formal action, use the appropriate process and preserve the relevant records. In an examination answer, choose a response that addresses the concrete dispute while respecting other duties, rather than a retaliatory act that creates an additional problem.

14 Responsibility for reports errors and corrections

The report is where the intended reader encounters the appraiser's work. It should explain the assigned subject, date and conclusion with the material conditions needed to understand them. A report can fail its reader through ambiguity even when its internal calculations are correct. Review the meaning of the conclusion before signing or issuing it.

Imagine that Lea reports PHP 15 million from PHP 1.2 million annual income divided by 8%. After issue she discovers that the supported input should have been PHP 960,000 because the model omitted a relevant annual deduction. Holding the stipulated rate and all other exercise conditions unchanged, the corrected indication is PHP 12 million. The difference is PHP 3 million, or 20% of the original PHP 15 million indication.

These are simplified teaching calculations, not a completed actual appraisal. The discovered issue requires assessing the full report, including whether the error affects the final reconciled opinion and how intended users may already have relied on it. Do not assume that revising one cell settles every consequence.

Preserve the issued version and explain the change

A practical response is to verify the error, assess its material effect, notify appropriate authorized parties through the applicable process and issue a clearly identified correction or revised report when required. Retain the prior version and the reason for revision. Exact duties, recipients and timing depend on the engagement and governing requirements; this lesson does not prescribe a universal correction form.

Quietly replacing the electronic file without identifying the change can leave readers relying on inconsistent versions. Backdating the revised report can misrepresent when the correction occurred. A clear record should distinguish the valuation date from the date the revised report was prepared or issued.

Explain without evading responsibility

“The software produced the amount” is incomplete if the professional selected the input, accepted the model and signed the report. Tools assist the work; their output needs appropriate checking. The appraiser should understand enough of the model to identify whether it answers the assignment and whether material inputs have been treated correctly.

Similarly, a broad disclaimer cannot make a knowingly false statement true. A report that says “no liability accepted” still needs accurate descriptions of work and conclusions. The examinee should ask whether the proposed action actually repairs the defect. If it only shifts blame or hides the error, it is unlikely to be the best professional response.

When reviewing an error case, distinguish correction from a change in market conditions after the valuation date. A later rent change does not necessarily prove that the original date-specific analysis was wrong. Establish what fact was incorrect, when it existed and how it affects the opinion before deciding what needs revision.

15 An integrated Harana ethics case

The following case extends the fictional Harana assignment. The initial current-condition market-value inquiry remains dated 30 September 2026. These additional facts are supplied for this exercise, rather than asserted as facts about any real company, lender or earlier lesson example.

Lea learns that her proposed signing colleague owns shares in Harana. The director offers an outcome bonus if the report reaches PHP 30 million. A project manager provides an unsigned lease proposal and asks that it be described as an existing lease. A junior analyst uploads tenant identity documents to an unapproved public drafting service. The planned reviewer previously developed the occupancy assumptions now being tested. Meridian Bank asks for a report by the following morning.

Separate the issues before deciding what to do

The shareholding requires a specific conflict and eligibility assessment. The bonus creates a result incentive. The lease instruction asks for a false description of evidence. The upload creates a confidentiality and personal-information incident requiring containment and the appropriate response. The reviewer’s earlier role creates a self-review concern. The deadline raises a resource and competence issue. One general disclosure paragraph does not resolve all six.

Lea should first stop the proposed misuse of the lease description and avoid issuing an unsupported report. She should address the information incident promptly through the responsible process. In parallel with those actions, the assignment team needs to reconsider acceptance, eligibility, payment terms, review arrangements

and the delivery date. The sequence is practical teaching guidance; an actual organization's lawful incident and escalation processes may specify additional steps.

Identify what would permit further work

Further work would require a supportable arrangement under the applicable rules. A conflicted signing colleague may need removal or the assignment may need referral or discontinuation. Payment terms should reward the agreed work rather than the threshold. The unsigned proposal must retain its correct status. The review should provide a meaningful challenge to the assumptions. Adequate time and access must be available for the required investigation.

If those conditions cannot be achieved, the desire to finish the report does not make continuation appropriate. Lea should communicate the material problem and follow the necessary withdrawal or other process. Avoid promising a result first and then trying to find procedural language to justify it.

Write a defensible examination response

A concise response could state: "Do not issue the requested threshold report. Resolve the signing colleague's financial interest against the applicable eligibility rules, remove the outcome-linked fee condition and evaluate whether a suitably independent team and adequate scope are possible. Keep the lease proposal accurately labelled. Contain the information disclosure and follow the relevant response process. Arrange review that addresses the prior assumptions and agree a realistic delivery date. If the material threats or evidence gaps remain unresolved, decline or discontinue the assignment appropriately."

The answer succeeds because each action addresses a stated defect. It does not assume a particular criminal offence or promise that a revised team automatically solves every issue. In ethics cases, specificity and proportion are more valuable than dramatic language.

16 Reading ethics questions and checking older materials

An ethics question usually turns on a particular action, relationship or piece of information. Read the role and the task first. A government employee may face additional public-service duties. A private external appraiser may face a specific independence condition in the engagement. A reviewer may be providing a process review, a value review or both; the scope matters.

Then identify the decisive fact. A client's preferred figure can be an expectation rather than improper pressure until the client asks for unsupported manipulation. A new executed record may justify revision. A result bonus creates a personal incentive even if no manipulation has occurred yet. A confidential request from an unauthorized buyer differs from a properly established legal disclosure obligation.

Choose an action that addresses the threat

Avoid treating "disclose and continue" as a universal answer. Disclosure may be part of the response, but it does not authorize a prohibited relationship, correct false evidence or supply missing competence. Equally, immediate withdrawal is not always the first necessary action when a manageable information gap or a correctable error is stated. Determine whether the problem can be properly addressed under the governing requirements.

When several options sound professional, compare their effect. Would the action prevent the unsupported conclusion? Would it protect the relevant information? Would the person reviewing the work be capable of

challenging it? Would the intended reader understand the scenario? An option that only adds a signature or a generic disclaimer often leaves the underlying defect unchanged.

Legacy references require source checks

Older review notes may contain references to DTI licensing, historical national codes or draft professional rules. RA 9646's transition provisions confirm the move of relevant regulatory records from DTI to the professional regulatory framework. [1, sec. 41] That historical connection does not prove that every reproduced older clause is the current operative rule.

For this lesson, the primary PRC publication has been identified and its indexed introduction checked. The complete detailed code clauses and the original DTI legacy text have not been independently compared here. No clause-by-clause legacy equivalence or exact effectivity date is asserted. For a question quoting a specific provision, consult the complete official text and the governing issuance rather than relying on a remembered reviewer phrase.

This lesson is intended for 2027 preparation, but no 2027 PRC program, detailed ethics weighting or future standards change is represented as verified. Record new official issuances as they become available. Your revision notes should distinguish a checked rule from an original practical recommendation.

To prepare for Lesson 11, retain three questions: Who is authorized to perform the work? What requirements govern that authority? What professional responsibilities remain when the work is performed? Lesson 11 develops RESA and professional practice requirements. The present lesson equips you to recognize how judgment, conduct and responsibility affect the credibility of the work.

17 Ten worked ethics cases

Try each question before reading the solution. The cases and organizations are fictional; figures are teaching assumptions. The responses explain professional reasoning and do not determine liability in an actual dispute.

Case 1 A value target without evidence

Question: A director asks Lea to select a 4% rate solely because PHP 1.2 million divided by 4% yields the required PHP 30 million. The evidence-based teaching input remains 8%. What should she do?

Solution: The arithmetic yields PHP 30 million at 4% and PHP 15 million at 8%. Lea should review relevant evidence for any change, refuse to select a rate solely for the target and explain the supported analysis. Continued pressure requires reconsidering whether the engagement can proceed appropriately.

Reasoning: Correct arithmetic does not supply a defensible reason for an input. The issue is the instruction to obtain a result, rather than a new evidential basis.

Case 2 A financial interest and ineffective review

Question: The signing appraiser owns shares in the borrower and controls the report. A junior employee is asked to initial the spreadsheet as an independence safeguard. Is that sufficient?

Solution: No. Assess the financial relationship against the applicable rules and assignment conditions. A junior sign-off under the conflicted appraiser's control does not remove that interest or provide meaningful challenge. Consider an appropriate unconflicted arrangement or decline if the threat cannot be properly addressed.

Reasoning: A safeguard needs to change the relevant relationship or control. The name of a procedure cannot do that by itself.

Case 3 Reviewing earlier assumptions

Question: The proposed reviewer prepared the occupancy assumptions used in Harana's original project proposal. Those assumptions are now a central part of the appraisal review. Identify the principal concern.

Solution: Self-review is the principal threat: the reviewer is evaluating assumptions associated with their own earlier work. Establish an arrangement that gives a competent person an effective opportunity to challenge those assumptions, subject to the applicable assignment requirements.

Reasoning: The prior role may create reluctance to recognize a defect. Merely renaming the task quality assurance does not address the concern.

Case 4 A confidential request from a purchaser

Question: An unrelated prospective purchaser asks for Harana's unpublished rent schedule. The purchaser offers sales evidence in exchange. No disclosure authority is established. What should Lea do?

Solution: Do not trade the schedule. Establish any lawful and appropriate disclosure basis; otherwise decline the request. Relevant sales evidence can be sought without offering protected client information as payment.

Reasoning: The purchaser's business reason does not establish permission. Confidentiality includes considering the use and the recipient, rather than only whether the information seems useful.

Case 5 A public-service gift

Question: A developer offers a holiday to a municipal employee while the developer's property is undergoing official appraisal work in that employee's office. The developer calls it ordinary hospitality. What needs attention?

Solution: The official function and connected benefit bring public-service restrictions into the analysis. The employee should refuse the problematic benefit and follow the appropriate reporting or compliance process. Do not use a private hospitality policy or the developer's label as authorization.

Reasoning: RA 6713 must be considered in its applicable conditions. The lesson supplies no universal monetary safe limit for gifts.

Case 6 A specialist's cost estimate

Question: An engineer estimates PHP 2 million for specified structural repairs. The trainee automatically subtracts PHP 2 million from every valuation indication. Explain the problem.

Solution: Understand the engineer's scope, date, exclusions and uncertainty and assess the market consequences for the assigned interest. The cost estimate may be relevant, but it does not automatically establish an equal market-value deduction.

Reasoning: Specialist evidence answers a defined technical question. Its valuation effect still needs analysis of the subject, basis and market perspective.

Case 7 A report correction

Question: After report issue, Lea finds that a relevant annual deduction was omitted. Hold the exercise rate at 8%. The income input changes from PHP 1.2 million to PHP 960,000. Compute the indications and propose an appropriate response.

Solution: The indications are PHP 15 million and PHP 12 million, a PHP 3 million reduction. Verify the error, assess its material effect on the report and reliance, and use the applicable notification and correction process. Preserve the issued version and identify any revision clearly.

Reasoning: Quiet replacement can leave readers using inconsistent reports. The teaching calculation alone does not settle the final opinion or every correction obligation.

Case 8 A challenge supported by a new record

Question: Harana supplies a previously omitted executed lease relevant to the subject and date. It asks Lea to reconsider the report. Is reconsideration a loss of independence?

Solution: No. Evaluate the record's authenticity, relevance and effect and correct or revise the work where justified. Document the reason for any change and communicate it appropriately.

Reasoning: Objectivity includes responding to relevant evidence. Refusing every client challenge could preserve an error rather than protect judgment.

Case 9 An inaccurate inspection statement

Question: Lea receives photographs from the client but did not inspect the interior. A template says she personally inspected every room. The team suggests retaining the template and adding a broad disclaimer. What should change?

Solution: Remove the false representation and accurately describe the work performed and information used. Evaluate whether the uninspected interior creates a material gap for the intended use, and arrange additional work or an appropriate response where necessary.

Reasoning: A disclaimer does not turn a supplied photograph into a personal observation. Accurate disclosure and adequate work are separate needs.

Case 10 Competing client roles

Question: A small team holds confidential acquisition advice for a purchaser. The owner asks that same team to advise on the purchaser's negotiating position. The team cannot explain the conflict without revealing protected information, and no effective arrangement is available. What is the response?

Solution: Recognize the client conflict and confidentiality concern. Do not accept the incompatible role under these facts. Seek an appropriate referral or other lawful arrangement without releasing the purchaser's protected information.

Reasoning: Consent is not an automatic solution, especially where it cannot be meaningfully obtained without compromising a duty. The case expressly states that no effective arrangement is available.

18 Ethics decision worksheet

Allow about 40 minutes. Use these lines for key points and a separate sheet for complete responses. This is an original training worksheet, not a prescribed regulatory form. State the issue, reason and action in each response.

1 Identify the assignment and the pressure

For Harana's current-condition refinancing inquiry, name the client, intended user, subject interest, valuation date and requested basis. Explain why the PHP 30 million financing need does not establish the opinion.

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2 Classify overlapping threats

The signing colleague owns Harana shares. The director offers an outcome bonus and threatens future exclusion if the report disappoints. Identify the principal threats and connect each to a stated fact.

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3 Evaluate a proposed safeguard

The conflicted colleague controls the final report, while a junior analyst initials formulas. Explain what the proposed procedure does and what it leaves unresolved. State the governing check needed before considering an alternative arrangement.

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4 Write a client response

Write a four- to six-sentence response to a request to describe an unsigned lease proposal as an existing lease and adjust the value upward. Allow for legitimate new evidence without agreeing to a false description.

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Ethics worksheet continued

5 Control information use

A buyer asks for unpublished rents and a junior analyst uploads tenant identity files to an unapproved tool. Treat the request and the incident separately. Identify the immediate practical actions and the authority checks.

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6 Define specialist reliance

An engineer supplies a PHP 2 million limited repair estimate. List the scope questions Lea should resolve and explain why this is not automatically the valuation deduction.

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7 Correct the model and the report

Hold the rate at 8%; change annual income from PHP 1.2 million to PHP 960,000. Compute both indications, the difference and the percentage of the original indication. Describe a responsible post-issue response.

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8 Decide whether work can continue

In the integrated case, assume no suitable unconflicted arrangement is available, the outcome condition remains and adequate investigation cannot be completed. Give a reasoned acceptance decision and explain how communication should protect confidential information.

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19 Review and examination checks

Issue	Practical distinction
Objectivity and independence	Judgment and the relationships affecting that judgment both need attention
Disclosure and consent	Neither overrides an express prohibition or repairs false evidence
Fees	Payment for work differs from an incentive for a predetermined outcome
Client challenge	Relevant evidence deserves review while an unsupported target does not establish value
Confidentiality	Establish authority for use or disclosure and any applicable legal duty
Privilege	An evidentiary protection requires legal analysis rather than a cover label
Personal information	Consider purpose lawful grounds and protection when processing records
Specialists	Understand the contribution and its limits before relying on it
Report error	Verify assess and correct appropriately while preserving clear versions
Public service	Professional credentials do not remove added government obligations
Older notes	Check the official rule rather than assuming legacy or draft wording is current

Questions to ask yourself

- What professional role and assignment does the case describe?
- Which stated fact could influence judgment or expose information?
- Does an express governing rule decide eligibility or conduct?
- Would the proposed action address the actual threat?
- Is continuation possible with competent work and meaningful safeguards?
- What evidence would justify revising the opinion?
- What should be recorded and communicated to the appropriate recipient?
- Am I distinguishing a checked rule from a practical recommendation?

Record your missed questions by reason: threat classification, authority, evidence, safeguard or correction. Lesson 11 develops RESA and professional practice requirements, including the distinction between qualification and authorization to perform the work.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These are newly authored study exercises, not actual or recalled PRC examination items. Use the stated role, rule and facts; do not infer missing relationships or criminal findings.

1. The client asks the appraiser to increase the opinion to match its loan requirement but supplies no relevant new evidence. Which response is best?

A. Adopt the figure because the client pays the fee

B. Average the supported indication with the requested amount

C. Explain the evidence-based analysis and decline unsupported manipulation

D. Change only the report date to justify the figure

2. A signing appraiser has a material financial interest in the subject company. A rule expressly prohibits that relationship for this assignment. The client signs a consent. What follows?

A. The consent removes the prohibition

B. A generic disclosure allows continuation

C. A junior reviewer can waive the rule

D. The prohibited arrangement cannot proceed merely because the client consents

3. A reviewer must evaluate assumptions they developed for the same project's earlier investment proposal. Which threat is most directly indicated?

A. Familiarity

B. Self-review

C. Intimidation

D. A gift-related public-service concern

4. A client offers an additional PHP 80,000 only if the reported value exceeds a stated threshold. What is the principal threat?

A. Self-interest

B. A guaranteed confidentiality breach

C. A completed criminal conviction

D. A pure arithmetic error

5. An employer threatens dismissal unless an appraiser removes supported findings that reduce the value. Which threat most directly fits the stated pressure?

A. Self-review

B. Ordinary data uncertainty

C. Intimidation

D. A new valuation date

6. A proposed specialist gives an estimate for limited remedial works. What should the appraiser do before relying on it?

A. Understand the scope and findings and establish their relevance to the assignment

B. Use the estimate as an automatic market-value deduction

C. Treat the specialist as responsible for every valuation conclusion

D. Assume the estimate covers all costs because it is signed

7. The client provides an executed record that was omitted and is relevant to the valuation date. Which action supports objectivity?

A. Ignore it because the report has been issued

B. Change the conclusion without checking the record

C. Assume every client document is false

D. Evaluate its relevance and effect and revise where justified

8. A prospective buyer offers a useful sale record in exchange for an unpublished client rent schedule. No authority to disclose is established. Which action is best?

A. Release the schedule because both parties gain

B. Seek an appropriate lawful disclosure basis or decline the request

C. Release only the highest-rent entries

D. Rename the schedule market research and send it

9. Which statement about confidentiality and a compulsory legal request is most accurate?

A. Confidentiality always prohibits any disclosure

B. Verify the request and applicable obligation and seek guidance where needed

C. Every email claiming government status must be obeyed immediately

D. Client permission is the only possible lawful basis

10. A trainee says every appraisal file is immune from court production because the cover says privileged. Which response is best?

A. The heading creates an automatic evidentiary privilege

B. The appraiser can ignore every subpoena

C. The distinction is irrelevant if the client paid

D. Confidentiality and evidentiary privilege require separate analysis under applicable law

11. For the simplified model, annual income changes from PHP 1,200,000 to PHP 960,000 while the rate remains 8%. What is the reduction in the indication?

A. PHP 3,000,000

B. PHP 240,000

C. PHP 1,920,000

D. PHP 12,000,000

12. A material report error is verified after issue. Which proposed action best supports responsible correction?

A. Delete the prior report and keep no revision record

B. Backdate a new report to hide when the error was found

C. Assess the effect and follow the applicable correction process while preserving the version history

D. Wait until someone else discovers the error

13. Which statement about an ordinary client-paid external appraisal is most accurate?

A. Payment entitles the client to determine the value

B. Payment does not remove the need for objective judgment and assignment-specific independence checks

C. External status resolves every possible conflict

D. Fixed fees guarantee compliance

14. A client supplied photographs, but the appraiser did not inspect the interior. What should the report say?

A. That the appraiser personally inspected every room because photographs exist

B. Nothing about the work if a disclaimer is included

C. Accurately describe the work and sources and address any material gap

D. That photographs prove the whole property is structurally sound

15. A municipal employee is offered a costly holiday by a developer whose property is undergoing official work in the employee's office. Which response is best?

A. Refuse the problematic benefit and follow the applicable public-service process

B. Accept if the developer calls it hospitality

C. Accept if the private professional association allows gifts

D. Accept and adjust the property figure to show gratitude

16. An appraiser ignores four relevant lower-price observations solely because they reduce the desired conclusion. Which response repairs the analytical problem?

A. Keep only the high observations but add a confidence statement

B. Classify the lower observations as outliers without investigation

C. Delete the lower observations from the file

D. Evaluate all relevant evidence and give supportable reasons for selection and exclusion

17. A firm gives a conflicted signing appraiser complete control but asks a subordinate to initial the spreadsheet. Which assessment is best?

A. The initial removes every financial threat

B. The procedure proves the report is independent

C. Every subordinate signature is a statutory safeguard

D. The procedure may leave the identified interest and control unchanged

18. A team proposes uploading complete tenant identification and bank documents to an unapproved drafting service for convenience. Which response is best?

A. Check necessity authority and protections and use an appropriately authorized arrangement

B. Upload because professional work is exempt from all privacy requirements

C. Upload after removing only the client logo

D. Upload and rely on the service to decide every obligation

19. An appraiser gives another practitioner a fair technical review. Which statement is the most defensible?

A. A lower conclusion proves the other practitioner is dishonest

B. The review should criticize character rather than calculations

C. Identify the evidential or analytical defect and explain its effect

D. Every difference should be resolved by averaging both opinions

20. Older notes cite a DTI code and a draft rule as if both were the current operative PRC code. What should the examinee do?

A. Assume the oldest wording is always binding

B. Verify the official instrument version and specific provision before treating it as current

C. Assume draft status disappears after a year

D. Use whichever rule produces the preferred answer

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	A
2	D	12	C
3	B	13	B
4	A	14	C
5	C	15	A
6	A	16	D
7	D	17	D
8	B	18	A
9	B	19	C
10	D	20	B

1. C A financing requirement explains a client objective; it does not establish the value. Review genuine evidence and address continued pressure appropriately.

2. D Apply the express eligibility condition. Consent cannot override a rule that prohibits the stated relationship.

3. B The reviewer is judging work connected with their earlier contribution. The review arrangement needs a meaningful challenge to those assumptions.

4. A The payment trigger gives the appraiser a personal benefit from a particular conclusion. Recognize the incentive before any actual manipulation occurs.

5. C The threat of dismissal seeks to deter objective judgment. Record the material request and use appropriate escalation or discontinuation processes if it remains unresolved.

6. A Specialist involvement addresses a defined gap. Scope, exclusions, reliability and valuation consequences still need consideration.

7. D Objectivity includes reconsidering a real evidential defect. Any revision should have a documented reason and appropriate communication.

8. B An exchange of useful information does not establish authority to disclose protected client information. Changing the filename does not resolve the issue.

9. B Ethical confidentiality allows for applicable legal or professional rights and duties. Establish the actual instrument and obligation; do not infer them from a label.

10. D A professional duty and a legal evidentiary privilege are different questions. A heading does not establish a blanket right to withhold a file.

11. A The original indication is PHP 15 million and the corrected indication is PHP 12 million. The reduction is PHP 3 million, not merely the annual input difference.

12. C Evaluate the material effect, including reliance, and communicate and revise as required. Exact recipients and procedures depend on the governing arrangements.

13. B Being paid is a commercial relationship. Consider the fee terms, interests and applicable conditions rather than assuming either automatic bias or automatic independence.

14. C Describe the evidence and work truthfully. Then assess whether the missing inspection or alternative evidence affects adequacy for the intended use.

15. A The public function and connected benefit bring public-service restrictions into the case. A private label or policy does not authorize the arrangement.

16. D Evidence selection needs reasons based on relevance and quality. A preferred outcome is not a defensible exclusion criterion.

17. D An effective response must address the threat. A reviewer who cannot challenge the conflicted decision-maker may provide little protection.

18. A The team must consider personal information and confidential material before using a digital service. Convenience does not establish authorized processing.

19. C A specific critique can be tested and corrected. Different conclusions do not by themselves establish misconduct or make averaging appropriate.

20. B Keep historical materials, drafts and operative rules distinct. This lesson does not assert a complete clause-by-clause comparison with the original DTI text.

Ethics worksheet solutions

1. Harana Development Corporation is the client and Meridian Bank the identified intended user for the agreed lending consideration. The subject is the defined ownership interest in the site and actual unfinished building, subject to established rights, on 30 September 2026. The requested basis is market value. A financing target is a business requirement, not evidence that establishes that basis and amount.

2. The shares and outcome bonus create self-interest concerns through personal benefit. The threatened exclusion creates intimidation through pressure on future work. Other threats require additional stated facts; do not invent them merely to list every category.

3. The initials may show that some formulas were checked, but they do not remove the financial interest or the colleague's control. Establish the applicable eligibility and independence rules first. If continuation is permitted in principle, evaluate whether a suitably competent arrangement actually addresses the threat; do not treat consent or a procedure name as sufficient.

4. A model response is: "The proposal is not evidence of an existing executed lease. I will record its status accurately and investigate its relevance. Please provide any executed record and other evidence relevant to the assigned interest and date. I can correct a verified factual or analytical error, but I cannot select inputs solely to reach a requested amount. Any distinct scenario requires clear terms and a separate description."

5. For the buyer request, establish the recipient, purpose and lawful disclosure authority, and decline unauthorized release. For the upload, seek prompt containment, preserve the incident facts and follow the organization's applicable privacy and confidentiality response process. Obtain competent guidance on any required notifications. The facts do not justify inventing a universal deadline or releasing the files publicly.

6. Check what work is included, the date and currency, access and investigations, exclusions, uncertainties and the specialist's relevant capability. Consider other consequences such as downtime or fees if material. Evaluate how the market and assigned basis reflect condition. A technical cost estimate and a market-value effect can differ.

7. PHP 1,200,000 / 0.08 = PHP 15,000,000. PHP 960,000 / 0.08 = PHP 12,000,000. The reduction is PHP 3,000,000, which is 20% of PHP 15,000,000. Verify the defect and assess its material effect on the full report and reliance, then use the applicable correction process with clear revision identification and retention of the issued version.

8. Under the supplied facts, do not issue the requested appraisal. The remaining conflict, outcome incentive and inadequate work prevent a supportable arrangement. Decline or discontinue appropriately, explaining the material assignment problem and attending to contractual and legal duties. Communicate only information appropriate to the recipient and purpose; withdrawal is not permission to expose protected client or third-party information.

22 Sources and examination preparation status

The statutory and international sources below were checked for the selected concepts used here. The PRC code's identity and introductory responsibilities were checked in official indexed publication text. The scan did not provide complete readable clause text in this verification. Detailed national clause claims, the exact publication effectivity date and a clause-by-clause comparison with the original DTI legacy text are therefore not asserted.

Some PRC website listing text labels the linked ethics code as Resolution 29. The indexed document itself identifies Resolution 39, series of 2019; that document identifier is used here. Verify the original signed document when an exact identifier or clause is at issue. No proprietary reviewer was used as authority for a rule.

The 2011 IVSC ethical code is dated and used as a threat-analysis framework, alongside the checked IVS effective 31 January 2025. It is not represented as a new 2025 code or automatic Philippine legislation. The international source does not establish every national adoption requirement. Practical response sequences, correspondence and numerical examples are original applications, not mandatory forms.

No 2027 PRC examination program, detailed weighting, examination date or future standards adoption is asserted as verified. Confirm later official issuances before the examination. Exact licensing details, current CPD conditions and practice documentation are developed separately in Lesson 11 and require their own checks.

1 Philippine professional regulation

Republic Act No. 9646. Real Estate Service Act of the Philippines, approved 29 June 2009. Selected study locations: sections 5(f), 19, 35 and 41. Ethical regulation and discipline are distinct from the detailed admission and practice requirements covered next.

https://lawphil.net/statutes/repacts/ra2009/ra_9646_2009.html

2 Philippine code identity and introductory responsibilities

PRC and Professional Regulatory Board of Real Estate Service. Code of Ethics and Responsibilities for Real Estate Service Practitioners. Indexed document identifies Resolution No. 39, series of 2019. Preamble and opening principles checked; detailed clause and exact effectivity checks remain necessary.

https://www.prc.gov.ph/sites/default/files/RealEstateServiceCOE.pdf

3 Current international valuation framework

International Valuation Standards Council. International Valuation Standards, effective 31 January 2025, published 31 January 2024. Primary text hosted by SAICA. Read IVS 100, particularly sections 10, 20 and 30, for principles, controls and specialist assistance.

https://saicawebprstorage.blob.core.windows.net/uploads/resources/IVS-effective-31-January-2025.pdf

4 International ethical guidance

IVSC. Code of Ethical Principles for Professional Valuers, December 2011. Official primary publication linked from the IVSC site. Selected study locations: fundamental principles, paragraphs 15–16 and Appendix 1. Used as a framework; applicable local requirements take priority.

https://ivsc.org/wp-content/uploads/2021/10/CodeofEthicalPrinciples.pdf

5 Personal information

Republic Act No. 10173. Data Privacy Act of 2012, approved 15 August 2012. Selected study locations: sections 11–13 and 20–21. The lesson does not supply a complete privacy compliance procedure or claim a universal incident-notification deadline.

https://lawphil.net/statutes/repacts/ra2012/ra_10173_2012.html

6 Public service

Republic Act No. 6713. Code of Conduct and Ethical Standards for Public Officials and Employees, approved 20 February 1989. Selected study locations: sections 4 and 7. Apply the actual statutory conditions and relevant current rules to a government role.

https://lawphil.net/statutes/repacts/ra1989/ra_6713_1989.html

7 Valuation and assessment context

Republic Act No. 12001. Real Property Valuation and Assessment Reform Act, approved 13 June 2024. Selected study locations: sections 2, 4 and 13. The teaching assessment level is stipulated and does not establish an actual property rate.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

REALEX

Lesson 11

RESA and Professional Practice Requirements

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

Know the service, establish the credential and accept responsibility for the work. This lesson explains how the Real Estate Service Act connects examination eligibility with registration, professional practice and continuing development.

You will apply the rules to original cases involving a bank appraisal, a brokerage team, an expired identification card, an attorney-in-fact and a government appointment. The examples teach professional reasoning without reproducing proprietary review materials or actual examination items.

Verified statutory rules and checked current PRC requirements are identified in the source notes. Dates, procedures and conditions for the 2027 examination or renewal period remain subject to later official issuances.

Your learning goals

- Distinguish appraiser, assessor, broker, consultant and salesperson roles.
- Recognize a covered act and apply an exception only on its actual conditions.
- Explain the present degree requirement and the two passing-score conditions.
- Separate passing, registration, oath and present practice authorization.
- Distinguish a COR, a PIC and an application receipt.
- Apply the private-appraiser protection requirement and broker staffing ratio.
- Explain corporate and individual responsibilities.
- Separate CPD renewal from examination admission and salesperson training.
- Recognize disciplinary grounds and the need for the proper process.
- Identify the official checks still needed for 2027.

Study plan: Allow about four hours in two sessions. Study sections 1–8 first, then sections 9–16. Try the ten worked cases before reading their solutions, complete the worksheet and take the 20-question test.

1 Why RESA matters before you accept an assignment

The Real Estate Service Act of the Philippines, Republic Act No. 9646, is commonly called RESA. It regulates who may perform specified real estate services and how professional authorization is obtained and maintained. A sound valuation method cannot cure an authorization defect. A person may calculate accurately and still lack the required credential for the service being offered.

Consider the Harana refinancing assignment used in the previous lessons. Meridian Bank requests a written opinion of the value of an identified property interest. The first professional question is who may accept responsibility for that appraisal. The company's business registration, the employee's years of experience and the bank's confidence are relevant facts, but none alone establishes the employee's authorization as a real estate appraiser.

Read a practice question in three stages. Identify the actual service. Identify the person's role and present authorization. Then ask whether a specific exception or additional requirement applies. This sequence prevents a familiar mistake: treating every person who works with property as if the same licence covers every task. References: source 1, sections 3, 26–29.

2 The five regulated roles

An appraiser develops an estimate or opinion of real estate value, with the conclusion ultimately expressed in an acceptable written form. The work may support a lending, acquisition, financial-reporting or other decision. The purpose influences the assignment, but it does not turn the appraiser into the client's transaction agent.

An assessor performs appraisal and assessment functions for a local government unit, including property such as machinery, for taxation purposes. Assessment involves the public taxation function. A private market-value report and a local government assessment are related inquiries with different authority and use. Do not infer that a private appraisal automatically changes the tax assessment.

A broker acts as an agent in real estate transactions for a fee, commission or other valuable consideration. Listing, advertising, negotiating and bringing parties to an agreement are brokerage activities. A broker may discuss asking prices in that role; a separate professional appraisal assignment still calls for the appropriate appraiser authorization.

A consultant provides professional advice on real estate matters such as acquisition, utilization, disposition and development planning. The statutory consultant role has its own qualification requirements. Calling a document a consultancy report does not remove appraisal requirements if the work actually includes a regulated appraisal service.

A salesperson is accredited and performs services for and on behalf of a licensed broker. Salesperson accreditation is not an independent broker licence or an appraiser licence. Different credentials can be held by one person, but each must actually be established. Reference: source 1, section 3(g).

Role	Main service	Authorization distinction
Appraiser	Written real estate value opinion	Registered and licensed appraisal role
Assessor	LGU appraisal and assessment for taxation	Government role with professional requirements
Broker	Agency in property transactions	Registered and licensed brokerage role
Consultant	Professional real estate advice	Separate licensed role and admission conditions
Salesperson	Services for a licensed broker	Accreditation and direct broker supervision

Reading a mixed-role case

Suppose a licensed broker negotiates Harana's sale and also offers a signed expert valuation for the bank. Separate the brokerage service from the appraisal service. Ask whether that person has valid appraiser authorization and can meet the assignment's competence and ethical requirements. Even two valid credentials do not automatically resolve the conflict discussed in Lesson 10.

3 One act can count as practice

Section 27 makes a single act or transaction within the regulated services sufficient to constitute practice. The question is not simply whether the person has a full-time appraisal business. An occasional paid written value opinion for another owner can raise the same authorization question as a recurring service.

Holding out also matters. Section 29 addresses practising, offering to practise and representations that convey professional qualification. Advertising oneself as a real estate appraiser cannot be justified solely by saying that the first report has not yet been issued. Professional titles and credential numbers are representations on which clients may rely.

Do not assume that supervision means any unlicensed assistant may issue the professional opinion. An assistant can contribute information or permitted support work; the authorized professional must undertake and be responsible for the actual professional service. A signature loan, where a credential holder signs work without meaningful professional involvement, is not a responsible substitute. Reference: source 1, sections 19, 27 and 29.

4 Exceptions require their actual conditions

Section 28 identifies particular exceptions. Study their limits instead of inventing a general exemption for family, government employment or unpaid assistance. Direct acts concerning a person's own property are covered by the own-property exception, but real estate developers are expressly excluded. A corporation's ownership of a development project therefore does not automatically excuse its regulated marketing arrangements.

The attorney-in-fact exception concerns a duly constituted representative acting for specified real estate transactions without compensation or remuneration. A special power of attorney establishes an agency arrangement; it is not a universal professional licence. In a case involving a commission, the unpaid condition is not satisfied merely because the document is entitled SPA.

Other listed exceptions concern receivers, trustees or assignees in bankruptcy or insolvency proceedings, persons acting under a court order, and public officers performing official duties. The public-officer exception expressly excludes government assessors and appraisers. The court-order exception must be tied to the actual court-authorized act, rather than an unrelated private engagement.

Original example: Lira directly offers her own non-development residence for sale. That is different from Lira collecting a commission to negotiate the sale of her neighbour's residence. Identify whose property is involved and what service she performs. An owner exception does not migrate to an unrelated compensated agency service. Reference: source 1, section 28.

5 Who regulates the profession

The Professional Regulatory Board of Real Estate Service operates under PRC supervision. RESA establishes a chairperson and four members; two members represent government assessors and appraisers. The Board has functions involving examinations, professional regulation, ethical standards, registration and discipline. The Commission has its own approval and oversight functions.

CHED recognition concerns the relevant educational institution and course. It should not be confused with PRC approval of a particular examination application. SEC registration concerns a corporate or partnership entity. It does not supply personal professional credentials. A client's panel accreditation is another distinct approval: it may be required commercially, but it cannot replace statutory professional authorization.

An examinee should identify the authority that answers the question. Degree recognition points to the educational requirements; permission to take the licensure examination involves the Board and PRC; corporate existence involves SEC; a lender's approved-panel status involves that lender. Combining these approvals into one vague word, accreditation, can conceal the missing requirement. Reference: source 1, sections 4–5, 14 and 32.

6 Admission to the appraiser examination

RESA section 14 states the qualifications to be established when the examination application is filed. It addresses citizenship, a relevant CHED-recognized bachelor's degree and good moral character, with the stated restriction concerning conviction of a crime involving moral turpitude. The degree provision also requires the real estate service course once that course has been implemented by CHED.

The current official PRC appraiser requirements list identifies the Bachelor of Science in Real Estate Management, or BSREM. It also lists a transcript with the required picture and examination-purpose remark, PSA civil records as applicable and valid NBI clearance for first-time and repeat applicants. Read the current checklist and general repeater procedures together. Do not borrow a removal-examination instruction printed under another profession on the same long webpage.

For your preparation, distinguish educational eligibility from examination readiness. Completing this lesson series, a review course or a short professional seminar does not itself award BSREM or create an exception to the official degree requirement. Another professional licence, such as a CPA credential, should not be presented as an automatic replacement for appraiser admission requirements.

The additional ten-year or five-year experience provision in section 14 concerns consultant candidates. It is not a general requirement that every new appraiser examinee first practise for five years. The statutory consultant routes include ten years in the identified roles or five years as a licensed real estate appraiser. Exact evidence and current filing procedures require the relevant official consultant checklist.

The list checked for this lesson supports present BSREM admission coverage. It does not confirm every document, fee, deadline or special case for the 2027 application period. Before filing, confirm the then-current PRC instructions for your profession and applicant category. References: source 1, section 14; sources 2–3.

7 The examination and its passing rule

Section 13 includes broad appraisal subjects such as appraisal fundamentals, economics, relevant laws, standards, mathematics, valuation methods and report writing. It also authorizes the Board to modify the subject arrangement. Use this statutory coverage as a foundation, then consult the official syllabus and examination program applicable to the examination being taken.

Section 15 requires both an average of at least 75 percent and no subject rating below 50 percent. The words at least matter: 75 is sufficient for the average condition and 50 satisfies the subject-floor condition. Meeting only one condition is insufficient. Section 15 itself does not establish a conditional-pass credit or a two-year retention system for a failed subject.

A teaching calculation

For this example only, assume three subjects weighted 50%, 25% and 25%. These are invented teaching weights, not verified PRC weights. Scores of 80, 75 and 65 produce 80 × 0.50 + 75 × 0.25 + 65 × 0.25 = 75. Every subject is at least 50, so both statutory rating conditions are met on those stipulated facts.

Now use scores of 90, 90 and 49. The weighted average is 79.75, but the subject rating of 49 defeats the subject-floor condition. Increasing the strongest subject cannot erase that failure. Conversely, scores of 75, 75 and 50 yield 68.75 on these weights: the subject floor is satisfied, but the overall average is too low.

Do not assume that a score in a topic quiz is the rating in an official examination subject. A lesson is a study unit; an official subject is the category used in the applicable examination rules. No 2027 timetable, topic weight or subject grouping is established by these examples. Reference: source 1, sections 12–16.

8 Passing is followed by registration and oath

A passing result is an important milestone, but it should not be treated as the only condition for entering practice. RESA requires registration and the applicable professional documents. Section 25 requires the professional oath before practice. Private appraisers must also address section 26. Follow the actual PRC initial-registration and oathtaking instructions rather than inventing a sequence from a reviewer diagram.

The Certificate of Registration, or COR, and the Professional Identification Card, or PIC, are different documents. Under section 17, the COR remains effective until revoked or suspended in accordance with the Act. The PIC is renewed every three years subject to the applicable requirements. Keeping an old COR on the wall does not eliminate the need for a valid PIC under the practice provisions.

A certificate of passing proves the examination outcome. A payment receipt proves a payment. An online renewal application proves that an application was submitted. None should be treated as conclusive evidence that a valid renewed PIC or an expressly applicable temporary authority has been issued. Check actual status and any specific current issuance that affects it.

Evidence	What it establishes	What it does not establish alone
Passing certificate	Examination outcome	Completion of every practice condition
COR	Professional registration	Current PIC status and all other conditions
PIC	Issued identification and validity details	Competence for every assignment
Renewal receipt	Application or payment evidence	That renewal has actually been issued
SEC registration	Entity registration	The individual appraiser's authorization

Section 18 also provides grounds for refusal of registration notwithstanding a passing result. Examine the statutory findings and procedure involved; a rumour or unresolved allegation should not casually be equated with a conviction by a competent court or a completed Board finding. Reference: source 1, sections 17–18, 25 and 29.

9 Private appraisal and the protection requirement

Section 26 applies to real estate brokers and private real estate appraisers. It requires professional indemnity insurance, cash or a surety bond, renewable every three years, in an amount determined by the Board that cannot be below PHP 20,000. Additional client requirements are expressly preserved.

PHP 20,000 is the statutory minimum amount, not a verified premium quotation and not a ceiling on liability. The premium paid to obtain insurance or a bond is conceptually different from the amount of protection. A client may require a higher amount or specified terms. Confirm the current Board-approved requirement and accepted evidence before relying on an arrangement in actual practice.

The section names private appraisers. Do not rewrite it to say every government appraiser must post this particular private-practice bond. Equally, do not conclude that government assessors and appraisers are exempt from professional licensure. The public-officer exception excludes them, and the government-position provisions separately matter.

Original example: Meridian Bank stipulates a PHP 100,000 protection requirement for an otherwise authorized private appraiser. A PHP 20,000 arrangement may meet the statute's stated floor, but it does not meet the client's stipulated amount. Neither amount tells you the appraised property's value or the price of the policy. Reference: source 1, sections 26, 28–30.

10 Salespersons and brokers: related but distinct

RESA section 31 provides for salesperson accreditation without a licensure examination for that role. It requires the educational and training conditions and places the salesperson under a licensed broker's direct supervision and accountability. No examination does not mean no qualification, no accreditation or no oath.

The current primary guideline checked here is Board Resolution No. 158(A), series of 2024. It revises accreditation and supervision arrangements. Its qualifications include at least two years of college or the recognized equivalent, and a Board-accredited 12-hour real estate brokerage seminar for salespersons. It requires a supervising licensed broker with a valid PIC. These salesperson conditions are separate from BSREM admission to the appraiser examination.

The guideline requires oathtaking and accreditation before the salesperson enters the covered brokerage practice. It also links the validity of the salesperson's accreditation to the supervising broker's PIC. A salesperson changing brokers must follow the prescribed change and dislodging arrangements; an informal promise from a new broker is not sufficient evidence that the regulatory change is complete.

Under section 31, a salesperson cannot alone sign the covered written transaction agreement without the supervising broker also signing. Compensation for the salesperson's transaction service is received from the supervising licensed broker, rather than independently demanded from a buyer or seller. A developer's sales badge is not a substitute for PRC accreditation.

Original example: An accredited salesperson asks whether completing the 12-hour seminar permits issuance of Harana's independent appraisal report. It does not. The seminar is part of the salesperson accreditation pathway; the appraisal requires the appropriate appraiser authorization. References: source 1, sections 25 and 31; source 4, particularly sections 2–6, 9 and 12.

11 Corporate practice and staffing

A partnership or corporation providing the regulated services needs SEC registration and appropriately registered and licensed individuals acting for it. A corporate name, invoice or employer instruction cannot manufacture the individual credential. The entity and practitioner requirements operate together.

Section 32 states at least one licensed broker for every twenty accredited salespersons. On a simplified staffing exercise involving 41 accredited salespersons, three brokers are needed to satisfy that numerical requirement. Two cover only forty. The ratio is a brokerage and salesperson rule, not a rule authorizing one appraiser to lend a licence to twenty independent appraisal signatories.

The same section requires real estate development marketing or sales divisions and departments to be headed by full-time registered and licensed brokers. Branch offices must be manned by a duly licensed practitioner of the relevant role. The statutory employer reporting period for a practitioner's effective resignation or termination is no more than fifteen days from effectivity.

Numbers are only part of compliance. Three names on a staffing list do not establish meaningful supervision if the people do not actually perform the required responsibilities. A salesperson must still have appropriate accreditation and supervision, and a particular appraisal must still be undertaken by an authorized and competent appraiser. Reference: source 1, section 32.

12 Practice records and professional identity

Section 33 requires a principal place of business and conspicuous display of the practitioner's COR and the certificates of practitioners employed in the office, using the original or certified true copies as specified. A practice file should separately establish current PIC status and the other applicable conditions. Display and present authorization answer different questions.

Section 38 requires professional identifiers on documents signed, used or issued in practice. These concern the COR, PIC, PTR and APO receipt particulars, with issuance and validity information. Read the provision and current implementation instructions when preparing an actual professional document. Do not fill a missing credential field with the employer's tax identification number or a colleague's number.

Section 34 provides for an accredited integrated professional organization and membership of registered practitioners, while allowing membership in other associations. This lesson does not identify a particular organization as the current AIPO without a verified recognition issuance. Membership in a voluntary organization alone does not establish PRC authorization.

Original practice habit: keep the individual's role, registration details, present PIC status, applicable protection documents and assignment responsibility clearly connected. When checking Harana's engagement, the bank should know which person undertakes the appraisal rather than merely receiving the firm's letterhead. This is a useful educational record habit, not a substitute for every official form. Reference: source 1, sections 22 and 33–38.

13 Continuing professional development

Professional learning continues after initial licensure. RESA refers to continuing professional education, or CPE, in its original wording. Republic Act No. 10912 supplies the continuing professional development, or CPD, framework, including CPD as a mandatory PIC-renewal requirement. Older CPE wording should be read alongside the later law and applicable current issuances.

CPD can involve more than a classroom seminar. RA 10912 recognizes several learning modes, including self-directed learning, online learning and professional work experience. Recognition is the key distinction. Reading a book or completing an app lesson can support learning, but it does not automatically produce approved CPD credit. Do not advertise this REALEX lesson as an accredited CPD program without actual approval.

PRC Resolution No. 2200, series of 2026, extends acceptance of a CPD undertaking for PIC renewal until 31 December 2026. It refers to adjustment measures connected with Resolution No. 2165, series of 2026, and planned full implementation beginning January 2027. An undertaking is a renewal arrangement under its applicable rules; the extension does not repeal RA 10912 or establish indefinite exemption.

For a February 2027 renewal, this 2026 extension alone is insufficient authority to assume acceptance of another undertaking. Check for later PRC and profession-specific issuances. The exact appraiser credit-unit total, exemptions, carry-over treatment and processing conditions for a particular 2027 renewal are not asserted as verified in this lesson.

Separate three educational questions. BSREM concerns the current degree pathway for examination admission. The salesperson seminar concerns that role's accreditation. CPD concerns continuing professional development and the applicable renewal system. One certificate should not be assumed to satisfy all three. References: source 1, sections 17 and 36; sources 5–6.

14 Government positions and foreign practitioners

RESA section 30 addresses government positions primarily requiring regulated real estate services. Its original three-year transition period should be recognized as historical, not restarted for every appointment. Section 28 excludes government assessors and appraisers from the general public-officer exception. Calling a valuation appointment contractual does not by itself remove the professional requirement.

Section 30 also protects the stated status and tenure of incumbent permanent assessors and addresses qualifications for promotion. Read those provisions as specific protections with their statutory context. They do not establish a new permanent exemption for any applicant who has worked in a local government office.

For foreign practitioners, section 24 sets a reciprocity condition. Reciprocity is not a licence automatically issued upon arrival. Sections 14, 23, 24 and 29 must be considered together with the applicable PRC process. A foreign credential or international professional designation should not be confused with a valid Philippine professional authorization.

Section 23 allows special or temporary permits, subject to the statutory conditions and Commission approval, where foreign practitioners' services are urgently needed in the absence or unavailability of local practitioners.

Check the permit's actual scope and validity. It is a specific regulatory pathway, not a blanket permission for every visiting expert. Reference: source 1, sections 23–24 and 28–30.

15 Discipline, penalties and responsibility

Section 19 authorizes specified disciplinary action after proper notice and hearing. Grounds include obtaining credentials by fraud, allowing an unqualified person to use one's credentials, unethical conduct, malpractice or violation of governing requirements, and practice during suspension. Passing the examination does not immunize the practitioner from later discipline.

Distinguish a complaint from a proven finding, and administrative professional discipline from a criminal court penalty. Section 39 states a fine of at least PHP 100,000, imprisonment of at least two years, or both at the court's discretion. It provides a doubled penalty where the violation is committed by an unlicensed practitioner. These are statutory penalty provisions, not a sentence automatically imposed by a client's allegation.

For a juridical entity, section 39 identifies a partner, president, director or manager who committed, consented to or knowingly tolerated the violation as directly responsible under the stated conditions. Do not assume every officer is liable solely because the company exists. Equally, an employer instruction should not be accepted as a reason to lend credentials or sign work that was not professionally undertaken.

Section 21 addresses possible reinstatement after the stated period and conditions. The two-year reference after revocation is not automatic restoration of authority on an anniversary. Board action, the application and the other required conditions matter. Replacement of a lost document is a separate question from reinstatement of a revoked credential.

For an examination scenario, identify the conduct and the statutory ground, then choose the lawful corrective action. Do not pronounce criminal guilt from facts that merely show an unresolved allegation. References: source 1, sections 19, 21 and 39; source 5, section 16 for CPD fraud.

16 A practical assignment acceptance check

Return to Harana's refinancing request. The proposed appraiser should establish the actual professional role, valid present authorization and the applicable private-practice protection. The firm should establish its relevant corporate arrangements. The professional should then assess competence, conflicts, scope and evidence using Lessons 8–10. Authorization and appraisal quality are connected requirements, but one does not prove the other.

Ask five questions before relying on a credential: Whose credential is it? Which role does it authorize? Is its present status valid? Which additional conditions apply to this setting? Who actually undertakes and accepts professional responsibility for this assignment? These questions make a credential check useful rather than ceremonial.

Original acceptance note: The bank requests a property-value opinion for the stated refinancing decision. The named appraiser's current authorization and applicable private-practice protection must be established. The appraiser must also confirm competence, conflict safeguards and the agreed scope before proceeding. A trainee may support permitted research under appropriate direction, but cannot independently issue the professional opinion using the appraiser's number.

The next lesson examines land registration, title evidence and tenure. That material concerns the rights being valued. This lesson concerns the authorization of the person performing the valuation. A valid licence does not prove the title, and a valid title does not authorize its owner's agent to perform every professional service.

17 Ten worked practice cases

Attempt each question before reading its solution. All cases and numerical assumptions are original teaching exercises. The score weights are fictional and do not establish PRC weights. An actual licensing or disciplinary matter requires the applicable official process.

Case 1 The broker who offers an appraisal

Question: A licensed broker negotiates Harana's sale and offers a separate written expert valuation to Meridian Bank. Only the broker credential is established. Is that enough?

Solution: No. Establish appropriate appraiser authorization before accepting the separate appraisal service.

Reasoning: Classify the acts separately. Brokerage authorization does not automatically establish appraisal authorization; a second credential would still leave competence and conflicts to assess.

Case 2 A high average with one low subject

Question: Use fictional weights of 50%, 25% and 25%. A candidate scores 90, 90 and 49. Determine whether the statutory rating conditions are met.

Solution: The average is 79.75, but the candidate fails the no-subject-below-50 condition.

Reasoning: $90 \times 0.50 + 90 \times 0.25 + 49 \times 0.25 = 79.75$. Both conditions must hold; an above-75 average cannot repair the 49. These weights are not PRC examination weights.

Case 3 Exactly at the average threshold

Question: Using the same teaching weights, scores are 80, 75 and 65. Are the section 15 rating conditions satisfied?

Solution: Yes. The average is exactly 75 and every subject is at least 50.

Reasoning: $40 + 18.75 + 16.25 = 75$. At least 75 includes 75. This answer concerns rating conditions only, rather than all subsequent requirements for practice.

Case 4 The old certificate on the wall

Question: A private appraiser has a displayed COR but an expired PIC. A renewal application has been submitted. The client says the old certificate is sufficient. What should be checked?

Solution: Establish valid current authorization, including actual PIC status and any expressly applicable temporary authority, before proceeding.

Reasoning: The COR and PIC have different functions. A submission receipt is not conclusive evidence of issued renewal. The client cannot create regulatory permission.

Case 5 The amount and the premium

Question: A fictional bank requires PHP 100,000 of protection. A private appraiser presents a PHP 20,000 arrangement and describes that figure as the annual premium. Identify both problems.

Solution: The presented amount does not meet the stipulated client amount. The amount of protection must also be distinguished from the premium paid.

Reasoning: PHP 20,000 is the statutory floor under section 26, not a verified premium or maximum required amount. Check current Board terms and the bank's additional conditions.

Case 6 Forty-one accredited salespersons

Question: A corporate brokerage has 41 accredited salespersons. In this simplified exercise, how many licensed brokers meet the section 32 ratio?

Solution: At least three brokers.

Reasoning: Divide 41 by 20 and round up: 2.05 becomes 3. Two brokers cover forty under the numerical rule. Actual accreditation, supervision and other staffing requirements must also be satisfied.

Case 7 A paid attorney-in-fact

Question: An owner authorizes a relative through an SPA to negotiate a sale for a commission. The relative claims the unpaid attorney-in-fact exception. Is the claim established?

Solution: No. The stated commission defeats the no-compensation condition of that particular exception.

Reasoning: An SPA documents authority from a principal; it does not itself create a professional licence or satisfy the unpaid statutory exception. Other facts would still need examination.

Case 8 The contractual government appointment

Question: An LGU proposes appointing an unlicensed person as a contractual property appraiser because temporary staff are said to be exempt. What is the issue?

Solution: Contractual status does not establish exemption from the relevant professional requirement.

Reasoning: Government assessors and appraisers are excluded from the public-officer exception, and section 30 addresses relevant government positions including contractual ones. Apply the actual position and any specific lawful pathway.

Case 9 The February 2027 renewal

Question: A professional cites Resolution 2200, series of 2026, as the sole basis for assuming an undertaking will be accepted in February 2027. Is the inference supported?

Solution: No. The checked extension ends on 31 December 2026. Later applicable rules must be checked.

Reasoning: A dated extension cannot establish a later extension. It also does not repeal the CPD requirement or prove that a renewal application has already produced a valid PIC.

Case 10 The firm’s signature arrangement

Question: A firm is SEC-registered. A trainee independently prepares and signs appraisal opinions using a licensed colleague’s number; the colleague does not undertake or review the work. Is SEC registration enough?

Solution: No. Stop the credential-lending arrangement and establish appropriately authorized professional responsibility for the appraisal service.

Reasoning: Entity registration does not replace individual authorization. Allowing unqualified use of a credential is a disciplinary ground under section 19. A hypothetical case identifies the issue; an actual disciplinary finding requires the proper process.

18 Professional practice worksheet

Allow about 40 minutes. Use these lines for key points and a separate sheet for fuller explanations. State the relevant distinction, apply it to the facts and identify the next action. This worksheet is an original learning aid, not an official PRC form.

1 Classify the service

Harana asks one person to negotiate a sale and another to provide the bank's written property valuation. Name the two professional roles and explain why the first credential alone does not prove the second.

_____

_____

_____

2 Build the eligibility file

An aspiring appraiser holds an unrelated bachelor's degree and a review-course certificate. State the current degree requirement checked in this lesson, identify the proper official checklist and explain what remains to be verified for 2027.

_____

_____

_____

3 Apply both score conditions

Assume teaching weights of 50%, 25% and 25%. Calculate the average for scores of 90, 50 and 90. Then apply both section 15 conditions. Keep passing-score conditions separate from permission to practise.

_____

_____

_____

4 Check an exception

An unpaid duly constituted attorney-in-fact handles an owner's lease. A second person handles a similar lease for a commission. Explain the decisive difference for the section 28 attorney-in-fact exception.

_____

_____

_____

Professional practice worksheet continued

5 Separate the documents

Write one sentence each explaining a certificate of passing, COR, PIC and renewal application receipt. Which evidence still needs checking when the PIC has expired?

_____

_____

_____

6 Staff the brokerage

A corporation has 61 accredited salespersons. Calculate the minimum brokers under the statutory ratio, then identify two other matters that the numerical answer does not prove.

_____

_____

_____

7 Plan renewal responsibly

Explain why the checked 2026 CPD undertaking extension cannot be assumed to cover a March 2027 renewal. List three current renewal details to confirm without inventing a credit-unit total.

_____

_____

_____

8 Accept the appraisal responsibly

Draft a short acceptance check for a private appraiser working through a corporation. Include authorization, private-practice protection, assignment responsibility and two quality or ethics checks from the preceding lessons.

_____

_____

_____

19 Review and examination checks

Study point	Essential distinction
Roles	The actual service determines the credential to check
One act	Occasional work is not automatically outside regulated practice
Exceptions	Identify the owner, act, compensation and specific statutory conditions
Admission	The checked appraiser list identifies BSREM
Passing scores	Average at least 75%; no subject below 50%
Registration and oath	Passing alone is not completion of all practice conditions
COR and PIC	Registration status and current identification require separate attention
Private protection	PHP 20,000 is the statutory floor, not a quoted premium
Broker ratio	Round salesperson count divided by twenty upward
Corporate practice	Entity registration does not replace individual authorization
CPD undertaking	The checked 2026 extension ends on 31 December 2026
Discipline	A complaint, a finding and a criminal sentence are different stages

Read the decisive fact

In a situational question, underline the role, the service, the date and the missing condition. An answer about ownership may be irrelevant to an appraisal credential. An answer about the overall score may overlook the subject floor. An answer about a renewal receipt may overlook present PIC status.

Keep a short correction log after the test: role confusion, exception conditions, score calculation, document status, staffing or dated policy. Revisit the section that supplies the missing distinction. Lesson 12 proceeds to land registration, title evidence and tenure.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored exercises are not actual, recalled or copied PRC items. Use only the facts supplied and the checked rules explained in this lesson.

1. A lender commissions an independent written opinion of the value of an ownership interest. Which role most directly describes the service?

A. Accredited salesperson solely because a sale may follow

B. Broker solely because the lender charges interest

C. Real estate appraiser

D. SEC registrar

2. Which checked present admission requirement is identified in the official PRC appraiser list?

A. Bachelor of Science in Real Estate Management

B. Any degree plus an unaccredited weekend seminar

C. A salesperson seminar alone

D. A broker’s verbal endorsement instead of a degree

3. An examinee has an average of 82 but a subject rating of 49. What is the best answer under section 15?

A. The average alone establishes a pass

B. The subject passes if the candidate is employed

C. The 49 is automatically rounded to 50

D. The rating conditions are not satisfied

4. Which statement best distinguishes the COR and PIC?

A. Both automatically expire every year

B. The COR remains effective until suspended or revoked under the Act; the PIC has a three-year renewal cycle

C. A PIC receipt replaces a COR in every circumstance

D. A COR eliminates all later renewal requirements

5. Under section 26, what does PHP 20,000 identify?

A. The annual insurance premium for every appraiser

B. The statutory minimum protection amount, subject to Board determination and additional client requirements

C. The maximum amount a client may require

D. The market value of all properties below which no licence is needed

6. Which salesperson statement is correct?

A. No examination means no accreditation is necessary

B. Accreditation authorizes independent appraisal reports

C. The employer's business badge replaces PRC accreditation

D. The role requires accreditation and direct supervision by a licensed broker

7. A corporation has 41 accredited salespersons. What minimum broker count satisfies the simplified section 32 ratio calculation?

A. Three

B. One

C. Two

D. Forty-one

8. A relative negotiates a sale under an SPA for a commission. Which conclusion is strongest?

A. Every SPA creates a broker licence

B. Relatives are always exempt

C. The unpaid attorney-in-fact exception is not established by these facts

D. An SPA abolishes all professional requirements

9. Which activity most directly describes the statutory assessor role?

A. Privately selling a client's property for a commission

B. Issuing salesperson seminar certificates

C. Registering a corporation with SEC

D. Local-government appraisal and assessment for taxation

10. A licensed professional lends a credential number so an unqualified person can independently practise. Which provision is most directly engaged?

A. The section 19 disciplinary ground concerning use of credentials by an unqualified person

B. A rule that company registration cures every defect

C. An automatic exemption for the credential holder's friends

D. A guarantee that the report is competent

11. What can be concluded solely from the checked Resolution 2200, series of 2026?

A. Every appraiser has zero CPD units forever

B. Undertakings are guaranteed throughout 2027

C. The acceptance extension stated there ends on 31 December 2026

D. A submitted renewal form automatically creates a valid PIC

12. A firm shows SEC registration but its appraisal signatory has no appraiser authorization. Which response is best?

A. Company registration supplies the individual licence

B. Establish appropriately authorized individual practice; entity registration is insufficient

C. The bank can grant statutory permission

D. An invoice number replaces the professional credential

13. How should the additional ten-year or five-year experience clause in section 14 be studied?

A. As a consultant-candidate provision rather than a general five-year requirement for new appraiser examinees

B. As an exemption from all examinations for any experienced person

C. As a two-year salesperson renewal cycle

D. As the life of every COR

14. A contractual LGU appraiser says public employment automatically exempts the role. Which answer is best?

A. Temporary status conclusively proves exemption

B. No government position ever needs professional authorization

C. The public-officer exception expressly excludes government assessors and appraisers

D. A supervisor’s signature eliminates licensure conditions

15. A candidate satisfies both statutory score conditions. Which conclusion follows?

A. The candidate can lend a registration number immediately

B. All private-practice protection is unnecessary

C. The candidate has become a broker and consultant automatically

D. The score conditions are met; registration, oath and applicable practice requirements still need attention

16. Which statement best handles a foreign appraiser's Philippine engagement?

A. A foreign licence automatically authorizes local practice

B. Check the applicable reciprocity or permit pathway and actual Philippine authorization

C. Reciprocity makes every application unnecessary

D. An international designation replaces PRC authorization

17. RESA's section 27 addresses which point?

A. A single covered act or transaction can constitute practice

B. Only a hundred paid reports constitute practice

C. All occasional reports are exempt

D. A website title is harmless until the first invoice

18. Under the corporate-practice provision, when must the employer report the practitioner's effective resignation or termination?

A. Only at the next annual tax filing

B. Within a period not exceeding fifteen days from effectivity

C. Exactly three years later

D. Never if the corporation keeps the name on its website

19. Which own-property statement is accurate?

A. Every developer is automatically exempt because it owns the project

B. An owner's agent always inherits the owner exception

C. Any commission on another owner's sale is exempt

D. The direct own-property exception expressly excludes real estate developers

20. A practitioner's registration was revoked two years ago. What is the strongest conclusion under section 21?

A. Authority is automatically restored at midnight on the anniversary

B. A client can restore the credential

C. Reinstatement requires the statutory application, conditions and Board action; time alone is insufficient

D. Replacing a lost card reverses revocation

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	C
2	A	12	B
3	D	13	A
4	B	14	C
5	B	15	D
6	D	16	B
7	A	17	A
8	C	18	B
9	D	19	D
10	A	20	C

1. C The commissioned service is the appraisal opinion. A potential later transaction does not change the role.

2. A The checked official list identifies BSREM. Confirm the then-current filing requirements before the 2027 application.

3. D A subject below 50 defeats the subject-floor requirement even with an average above 75.

4. B The documents have distinct statutory functions. Present practice authorization still requires the relevant valid documents.

5. B It is the statutory floor for the identified insurance, cash or surety-bond requirement. It is not a premium or liability ceiling.

6. D The statutory pathway is accreditation with the specified conditions and licensed-broker supervision.

7. A One broker per twenty requires rounding 41 ÷ 20 upward to three. Other requirements still apply.

8. C The commission is inconsistent with the exception’s no-compensation condition.

9. D The assessor role concerns the local-government taxation function, distinct from transaction brokerage.

10. A Credential lending to an unqualified person is an express disciplinary concern; proper notice and hearing remain relevant.

11. C The checked resolution extends acceptance to that date. Later dates require later applicable authority.

12. B Section 32 combines entity registration with appropriately licensed individuals acting for the entity.

13. A The experience proviso is attached to consultant examination applicants. Do not transfer it to every appraiser candidate.

14. C Apply sections 28 and 30. Contractual status alone is not an exemption.

15. D Passing is separate from completing the subsequent applicable steps for authorized practice.

16. B RESA contains specific foreign-practitioner provisions; none establishes automatic permission solely from a foreign credential.

17. A The single-act rule prevents assuming that occasional professional work is outside regulation.

18. B Section 32 ties the reporting period to the effectivity of the resignation or termination.

19. D The exception has express limits. Property ownership is not a universal exemption for developer activity.

20. C Section 21 provides a discretionary reinstatement pathway with conditions, not automatic restoration.

Worksheet model responses

Response 1

Broker for negotiating the transaction; appraiser for the written valuation service. Each role's authorization must be established. The broker credential alone does not establish the appraiser credential.

Response 2

The checked PRC appraiser list specifies BSREM. Use the appraiser-specific PRC requirements and applicable general application instructions. Check the 2027 list, deadlines, fees and any officially authorized special pathway; a review-course certificate alone is insufficient.

Response 3

90 × 0.50 + 50 × 0.25 + 90 × 0.25 = 80. All scores are at least 50, so both rating conditions are satisfied on these fictional weights. Registration, oath and applicable practice conditions remain separate.

Response 4

The first arrangement supplies the unpaid condition, assuming the actual act and authority meet the exception. The second includes compensation, so that particular exception is not established.

Response 5

Passing certificate: outcome evidence. COR: professional registration document effective until suspended or revoked under the Act. PIC: current identification renewed on the prescribed cycle. Application receipt: submission evidence. Check actual valid renewal or a specifically applicable authority before practice.

Response 6

61 ÷ 20 = 3.05, rounded up to four brokers. The count does not prove valid individual credentials, salesperson accreditation, actual supervision or compliant full-time leadership and branch arrangements.

Response 7

The extension expressly ends on 31 December 2026. Check later undertaking policy, the profession-specific credit-unit requirement or exemption, recognized learning evidence and actual renewal procedures. The 2026 instrument alone establishes none of those 2027 details.

Response 8

Identify the responsible appraiser and establish present role-specific authorization, applicable section 26 protection and the corporation's relevant arrangements. Confirm competence, conflicts, intended use and scope. A trainee's contribution must not become an independently issued opinion under a borrowed credential.

22 Sources and 2027 preparation status

These sources support the selected rules taught in the lesson. The explanations, correspondence-style note, calculations, cases and assessment items are original. Laws and official issuances are the authorities; no proprietary publisher's examination questions or explanations were used.

The checked statutes establish the core role, admission, passing-score, registration and practice framework. The PRC requirements list establishes the present listed BSREM pathway. Resolution 158(A), series of 2024, supplies the checked salesperson guideline. Resolution 2200, series of 2026, establishes the dated undertaking extension.

This lesson is not a clause-by-clause consolidation of the complete RESA IRR, every CPD issuance or all practice forms. It does not assert a verified 2027 examination schedule, detailed syllabus revision, subject weighting, application fee or filing window. It also does not assert a verified appraiser CPD-unit total or undertaking extension for 2027. Check later signed PRC and Board issuances before the relevant application, renewal or assignment.

When updating your notes, record the issuing authority, instrument number, date, applicable profession and period covered. The date of a webpage crawl is not the enactment date. A historical transition, an expired extension or another profession's checklist should not be silently turned into a current appraiser rule.

1 RESA statutory foundation

Republic Act No. 9646, approved 29 June 2009. Study sections 3–5, 12–21 and 23–39. Read the exact statutory conditions alongside current implementing issuances. The original registration-without-examination and government transition provisions are historical pathways, not newly restarted application periods.

https://lawphil.net/statutes/repacts/ra2009/ra_9646_2009.html

2 Present PRC application checklist

PRC, List of Requirements, Real Estate Appraisers entry, checked 11 October 2026 through official indexed text. It identifies BSREM and the listed documentary requirements. Read the appraiser entry separately from nearby professions and with applicable general repeater procedures.

https://www.prc.gov.ph/list-of-requirements

3 Corroborating official appraiser requirements

PRC, Real Estate Appraiser documentary requirements PDF. Official entry identifying the BSREM degree and supporting documents. Used to corroborate the degree pathway, not to fix a future fee or application procedure.

https://www.prc.gov.ph/uploaded/documents/ApplicationDocumentRequirmentsUpdated/REAL%20ESTATE%20APPRAISER.pdf

4 Revised salesperson guideline

Professional Regulatory Board of Real Estate Service, Resolution No. 158(A), series of 2024, dated 17 October 2024. Revised Guidelines on the Accreditation and Supervision of Real Estate Salespersons. Selected study locations: sections 2–6, 9 and 12. The signed scan's exact publication-effectivity notation is not asserted here.

https://www.prc.gov.ph/sites/default/files/2024-158(A)%20published%20Real%20Estate%20Salespersons.pdf

5 Continuing professional development law

Republic Act No. 10912, approved 21 July 2016. Study sections 5–8, 10–11 and 16. Learning activities require the applicable validation and recognition; this lesson itself is not represented as an accredited CPD program.

https://lawphil.net/statutes/repacts/ra2016/ra_10912_2016.html

6 Dated CPD undertaking extension

PRC Resolution No. 2200, series of 2026, approved 22 June 2026. The signed two-page attachment extends acceptance to 31 December 2026 and refers to the adjustment toward implementation beginning January 2027. It does not establish a later extension.

https://www.prc.gov.ph/prc-resolution-no-2200-s-2026

REALEX

Lesson 12

Land Registration
Title Evidence and Tenure

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

A property appraisal must identify the right being valued and the evidence supporting it. This lesson teaches you to read registration records, distinguish documents, investigate material discrepancies and recognize when a claimed interest requires legal or technical clarification.

The fictional Harana assignment continues with newly supplied title and survey facts. All examples, synthetic records and assessment items are original study material. The numerical figures are teaching assumptions, not verified market prices or official title particulars.

The legal discussion incorporates checked amendments affecting imperfect-title confirmation and agricultural free patents. It distinguishes those rules from the unconfirmed syllabus, examination arrangements and later legal changes that may apply in 2027.

Your learning goals

- Distinguish original registration from subsequent dealings.
- Explain OCT, TCT, owner's duplicate and certified true copy.
- Reconcile title, deed, tax declaration, survey and inspection evidence.
- Interpret mortgages, leases, adverse claims and litigation notices.
- Explain registration effects concerning third persons.
- Distinguish possession and tax evidence from conclusive ownership proof.
- Apply the checked RA 11573 and RA 11231 amendments.
- Identify the separate residential free-patent framework.
- Recognize survey, access and boundary issues requiring specialist work.
- Define the appraised interest without adjudicating title disputes.

Study plan: Allow four to five hours in two sessions. Read sections 1–8 first, then sections 9–16. Try the ten worked cases, analyze the synthetic record, complete the worksheet and take the 20-question test.

1 Identify the right before estimating its value

Land registration records help establish the interest an appraisal must examine. The visible site, the tax declaration and the client's account may describe the same property imperfectly. Before applying a unit price, connect the claimed interest to an identifiable parcel and investigate the evidence supporting that interest.

The Harana assignment continues in this lesson. Meridian Bank receives a photocopied title, a tax declaration, an old deed and a proposed subdivision sketch. The documents are not interchangeable. A title identifies a registered interest; a deed records a transaction; a tax declaration supports taxation records; a survey helps identify the parcel. None should silently replace the others.

Your task as an examinee is to explain what a document supports, what remains uncertain and what investigation should follow. Your task as an appraiser is to define the interest and communicate material uncertainty responsibly. An appraisal conclusion does not adjudicate ownership, cancel an annotation or approve a subdivision.

2 The Torrens system and the registration record

Presidential Decree No. 1529, the Property Registration Decree, supplies the central registration framework. Original registration brings land under the Torrens system through the applicable process. Subsequent registration records later dealings with land already registered. A new sale is ordinarily a subsequent dealing; it is not a new application to prove the land's original registrability.

Registration proceedings are in rem: the proceeding concerns the property and has consequences beyond the people named as parties, subject to the required process. This explains the importance of notice, land identification and the decree. Do not infer that the owner's private statement alone substitutes for the public registration process.

An Original Certificate of Title, or OCT, identifies original registration. A Transfer Certificate of Title, or TCT, is a subsequent certificate covering the registered land following relevant dealings. A TCT does not inherently indicate weak ownership merely because it is a transfer certificate. Trace its previous-title references where material to the investigation.

A Condominium Certificate of Title, or CCT, concerns a condominium interest. Do not read a unit certificate as independent ownership of the entire underlying lot. Detailed unit, common-area and condominium-corporation questions belong to Lesson 15. Here the important habit is to identify which type of interest the document covers. Reference: source 9, sections 2–4.

Record	Main distinction
OCT	Original registration certificate
TCT	Subsequent certificate for registered land
CCT	Certificate covering a condominium interest
Owner's duplicate	Duplicate issued to the registered owner
Certified true copy	Certified evidence supplied from the official record

The Registry of Deeds maintains the registration records for the relevant territory. The Land Registration Authority, or LRA, is the present institutional name used in practice. Older statutory text uses Land Registration Commission and Court of First Instance. When reviewing original wording, recognize those historical names and consult the current procedural framework rather than adopting every old administrative reference literally. Reference: source 1, sections 2, 10 and 39–43.

3 The title copy and its date

Distinguish the original record maintained by the Registry, the owner's duplicate and a certified true copy obtained from the registration records. An ordinary photocopy supplied by a seller is useful preliminary information, but its completeness, date and consistency with the current record require checking. A photograph of the first page may omit annotations on later pages.

The LRA eSerbisyo portal offers requests for certified true copies of titles. The availability of that service does not mean every title issue can be resolved through a website screenshot. Identify the correct Registry, title number and document requested, then review the complete result and related instruments as needed. The exact fee and processing time are not fixed by this lesson.

A certified copy is evidence of the record as supplied; it is not a guarantee that the site is vacant, the boundaries are undisputed or no statutory burden exists. Its issue date also differs from the valuation date. A copy obtained after that date may contain a later entry. Establish when each material right or event arose and which facts apply to the opinion being given.

Original example: A copy issued on 5 October includes a mortgage entry dated 2 October. The valuation date is 30 September. The appraiser should investigate the chronology, rather than simply transplanting every October entry into the September interest. Equally, a much older copy should not be assumed to show all rights existing on the valuation date. References: source 1, sections 40–43 and 52; source 2.

4 Read the whole title and reconcile the identifiers

Start with the Registry and title number. Then identify the registered owner or owners, the lot and plan references, the technical description, area and previous-title references. Read all annotations and continuation pages. The property's street address is a useful location clue but may be insufficient to distinguish adjoining or recently subdivided parcels.

Compare those entries with the deed, tax declaration, survey plan and actual inspection. Ask whether all records describe the same lot. A seller may have several parcels with similar addresses. A tax declaration may refer to improvements, a portion or a superseded record. A deed may describe a share rather than the entire titled lot.

Personal circumstances also need interpretation. A spouse's name recorded as part of the registered owner's civil status is not by itself a complete determination of the property regime or transaction consent requirements. Co-ownership, marital property and succession require the applicable legal facts and supporting records. Lesson 13 develops those questions.

Original example: Harana's title identifies Lot 214-B with 1,200 square metres, but the marketing sheet advertises 1,350 square metres. The difference is a material identification issue. The larger figure does not become the registered area because the seller uses it in a brochure. Obtain technical evidence and clarify the interest before relying on the larger quantity. Reference: source 1, sections 43 and 45.

5 Deeds registration and third persons

A deed may record a sale, donation, mortgage or another transaction. Examine the parties, authority, property description, interest conveyed, conditions and execution. A notarized instrument is not automatically a newly issued title, and notarization does not establish that every substantive defect has disappeared.

Section 51 distinguishes the transaction instrument from its registration effect. Registration is the operative act to convey or affect registered land insofar as third persons are concerned. Section 52 treats the registered instrument or entry as constructive notice. Preserve that third-person qualification instead of reducing the rule to the inaccurate slogan that an unregistered deed has no legal effect whatsoever.

The relationship between the parties also depends on the applicable substantive law, including the contract, delivery, conditions and legal capacity. A document labelled Deed of Absolute Sale should therefore be read in full. A contract to sell with reserved ownership and unsatisfied conditions presents a different question from a completed conveyance. A receipt for a down payment is still another item of evidence.

For an appraisal, identify whether the requested subject is the registered ownership interest, a purchaser's contractual position or another defined interest. Do not report the purchaser as the registered owner merely because the buyer presents a deed or has occupied the property. Conversely, do not dismiss a documented contractual claim solely because the registration is pending.

Original example: Lira presents a deed from the registered owner, but no evidence of completed registration. An appraisal can investigate and define the relevant interest, subject to the actual scope and support available. It should not state that the current TCT already names Lira unless the record confirms it. Reference: source 1, sections 51–55.

6 A useful registration workflow

Keep original registration and subsequent transfer in separate study tracks. Original registration requires an applicable lawful pathway, identification of the land, proof of the statutory conditions and the prescribed judicial or administrative process. A later transfer starts with an existing registered interest and the transaction affecting it.

For a subsequent voluntary dealing, begin by establishing the current title and the parties' authority. Review the instrument and applicable tax, documentary and registration requirements. Present the required documents and owner's duplicate where the law requires it. Then verify the actual Registry outcome: a new certificate, an annotation or a recorded cancellation, according to the dealing.

This is a learning sequence, not an exhaustive Registry checklist. Requirements differ with the instrument, party and property. An estate transfer, corporate sale, agricultural transaction and ordinary individual sale can call for different supporting evidence. Current BIR and Registry instructions determine actual tax and documentary processing; this lesson does not prescribe a universal tax rate or filing deadline.

An application receipt establishes submission, not necessarily completed registration. A tax authorization establishes the tax authority's action within its scope, not the Registry's final action. A proposed survey does not establish issued subdivision titles. Record each process milestone accurately rather than calling all of them title transferred. Reference: source 1, sections 51–58 and 60–64.

Milestone	What still requires verification
Signed deed	Authority, substantive effect and registration outcome
Tax processing	Completion of relevant registration steps
Registry submission	Actual certificate or annotation outcome
Approved subdivision plan	Resulting registration and issued titles
Proposed development sketch	Approval, parcel identity and legal rights

7 Encumbrances and interests below ownership

A mortgage secures an obligation against a defined interest. A lease grants use and possession under its terms. An easement can burden one parcel or benefit another. Attachments and court-related entries have their own legal basis. Read the supporting instrument instead of treating every annotation as the same kind of defect.

Under section 54, interests below ownership can be recorded by filing and annotation without issuing a new ownership certificate. Cancellation or extinguishment also needs the relevant registration treatment. A borrower’s statement that the loan has been paid does not itself establish that the mortgage annotation has been cancelled in the record.

For valuation, separate the property interest from a reconciliation of debt and owner’s proceeds. Suppose an original teaching example gives the defined property interest a value of PHP 12 million and stipulates debt of PHP 3 million. PHP 9 million is a simplified equity or proceeds subtotal before other adjustments. It should not be relabelled the property’s market value merely because a mortgage exists.

A lease may affect actual income, possession and transfer conditions. An access easement may improve utility for one site while limiting another. Their economic effect depends on their actual terms and market evidence. The existence of an annotation does not justify an automatic percentage deduction or a conclusion that the property has no value. Reference: source 1, sections 44, 46 and 54.

8 Adverse claims and pending litigation

An adverse claim is an asserted interest adverse to the registered owner, recorded under the conditions in section 70. Its annotation is a notice mechanism; it is not, by itself, a judgment awarding ownership to the claimant. Investigate the asserted interest, the underlying instrument and the current status.

The thirty-day wording in section 70 is a frequent examination trap. The Supreme Court’s decision in Sajonas v Court of Appeals explains why the annotation does not automatically disappear through the passage of thirty days. Read the cancellation provision together with the period. Do not assume that day thirty-one produces a clean title.

A notice of lis pendens concerns pending litigation affecting the relevant title or property rights. It gives notice of the proceeding and its possible consequences. It is different from a final judgment, a mortgage or a voluntary lease. Obtain the relevant pleadings, orders and current status through appropriate channels rather than guessing the result of the case.

Original example: A title bears an adverse claim dated two months before inspection and a notice of pending title litigation. The appraiser should describe the relevant evidence and seek legal clarification needed for the

defined interest. A valuation report cannot independently cancel either entry or decide that the claimant must lose.

Where the legal outcome is unresolved, an agreed and supportable scenario may help answer a distinct decision. Its assumptions must be clear, and it must not be presented as the actual settled legal position. Sometimes the missing evidence makes a reliable conclusion unavailable until the assignment is revised or further investigation is completed. References: source 1, sections 70 and 76–77; source 3.

9 The protection of a registered title has limits

Section 47 provides that registered land cannot be acquired in derogation of the registered owner's title by prescription or adverse possession. Long occupation and repeated tax payments therefore do not automatically defeat an existing registered title. First determine whether the land is registered before selecting a rule about possession periods.

Section 48 prohibits a collateral attack on a certificate of title. Alteration, modification or cancellation requires the direct proceeding provided by law. A valuation dispute is not permission for an appraiser to strike out a registered owner's name. Describe the material issue and refer the ownership question to the proper process.

Section 32 contains a review route for an original registration decree obtained through actual fraud, with statutory conditions and a one-year period from entry of the decree. Do not count that year from a later TCT sale date or assume that every later remedy disappears at the anniversary. The rights of an innocent purchaser for value and the appropriate remedy require the actual legal facts.

Sections 44 and 46 preserve specified statutory burdens and legal incidents. These can include relevant taxation, access and agrarian matters even where a casual reading of the annotations suggests an unrestricted property. A registered certificate is important evidence, but clean title is not a complete investigation method.

For appraisal reasoning, ask whether the proposed interest is legally identifiable and whether a material issue requires specialist advice. Avoid two extremes: dismissing a registered title on a neighbour's assertion alone, or treating the certificate as proof of every physical and legal fact about the site. Reference: source 1, sections 32 and 44–48.

10 Tax declarations possession and unregistered land

A tax declaration records property for taxation purposes. Tax receipts show payment of the identified tax. Supreme Court decisions recognize these as relevant indications of a claim or possession, while explaining that they are not conclusive proof of ownership. Their weight depends on the accompanying evidence and the legal issue.

Possession is a factual relationship with property; ownership is a legal right. A tenant, caretaker, buyer awaiting completion, co-owner or adverse claimant may occupy land in a different capacity. Ask who possesses the site, under what claimed authority and for what period. Do not infer ownership merely from fencing, improvements or utility bills.

Unregistered land is not automatically ownerless, valueless or available for private acquisition. It may involve private rights supported by evidence or public land that is not susceptible to private ownership under the claimed route. Establish classification and the applicable legal pathway before treating possession as a completed title.

Section 113 allows recording of instruments affecting unregistered land, subject to its conditions. Recording such a deed does not by itself bring the land under the Torrens system or create an OCT. Distinguish a recorded transaction from original registration and the issuance of the resulting title.

Original example: Nilo has tax declarations and a deed describing a possessory claim, but no Torrens certificate. The evidence warrants investigation. It does not establish that the appraiser should value unrestricted registered ownership without further qualification. References: source 1, section 113; source 4.

11 Public land classification and eligibility

Article XII of the Constitution distinguishes public-domain land and limits alienable public land to the agricultural classification. Forest or timber land does not become privately registrable merely because it is cleared, cultivated or occupied for decades. Legal classification is different from the vegetation visible on inspection.

Alienable and disposable status means that the relevant public land is legally available for disposition under the applicable law. It does not mean that a particular claimant has already completed every condition for a patent or judicial confirmation. The land must be identified and the classification evidence must actually cover that parcel.

The Constitution also distinguishes the acquisition of alienable public land from holding already private land. Private corporations cannot acquire alienable public-domain land as owners through the ordinary citizen grant pathway; the constitutional public-land provision allows the specified lease arrangement. A corporation's qualification to acquire private land is a separate issue requiring the relevant nationality and legal requirements.

Original example: A developer asks whether its SEC registration allows it to receive the same public-land free patent available to an eligible individual. Entity registration alone does not answer the constitutional qualification question. Identify the public or private status, applicant and legal route.

Foreshore, protected areas, ancestral rights and special reservations require their own legal and factual checks. A beachfront address does not prove that the whole advertised area is private land. This lesson introduces the need for those checks rather than prescribing a universal shoreline distance or settling every special-tenure rule. Reference: source 5, Article XII, sections 2–8.

12 Imperfect titles and the 2021 amendment

Republic Act No. 11573 amended the Public Land Act and section 14 of PD 1529. It is essential when updating older notes. The original PD 1529 webpage still displays the former June 12, 1945 wording; read the later amendment alongside that historical text.

For the amended section 14(1) pathway, the law specifies open, continuous, exclusive and notorious possession and occupation under a bona fide ownership claim for at least twenty years immediately before the application, subject to the stated exception for war or force majeure. The parcel must be qualifying alienable and disposable public land not already covered by an existing certificate or patent. The amended provision also specifies a land-area limit of twelve hectares.

Each adjective matters. Open concerns possession manifested rather than concealed. Continuous concerns its relevant persistence. Exclusive concerns the nature of the claimant's possession. Notorious concerns possession apparent to others. These are learning explanations, not substitutes for judicial interpretation of the evidence. A claimant must establish the statutory facts, not merely repeat the words in an affidavit.

Section 7 identifies the statutory proof of alienable and disposable status for judicial confirmation: certification by the designated DENR geodetic engineer, imprinted on the approved plan, with the required sworn statement and classification references. A privately drawn sketch or barangay statement should not be treated as the specified certification.

Original example: A claimant cites twenty-two years of possession of forest-classified land. The duration alone does not satisfy the qualifying land-classification condition. Another claimant identifies eligible land but supplies only twelve years of the required possession. That fact pattern does not satisfy the twenty-year condition merely because the survey is complete.

Older deadline language also needs checking against RA 11573. Its amendments provide the stated application routes at any time and repeal the specified Public Land Act section. Do not invent a 2027 filing cutoff from an expired reviewer table. Exact proceedings and evidence should follow the current rules and relevant jurisprudence. Reference: source 6, sections 2–7.

13 Agricultural and residential free patents

An agricultural free patent is an administrative public-land pathway with specific qualifications. RA 11573 amended section 44 of the Public Land Act to address a natural-born Filipino applicant, the stated existing landholding limit, twenty years of continuous occupation and cultivation personally or through a predecessor, qualifying agricultural public land and payment of real estate tax. The patent grant is subject to the statutory twelve-hectare limit. These conditions should not be reduced to twenty years equals title.

Agricultural free-patent applications are filed with CENRO, or PENRO where the province has no CENRO, under the amended provision. The law allocates recommendation and approval functions by area. The appraiser should identify the relevant administrative pathway and actual patent record rather than assume that a pending application is an issued grant.

RA 11231 removes the identified Public Land Act restrictions on agricultural free patents issued under section 44, including qualifying older grants, subject to its stated protection for certain earlier good-faith redemption transactions. A reviewer rule about a five-year free-patent restriction therefore cannot automatically be applied to every present agricultural free patent without considering this amendment.

The amendment does not establish that every land grant or agrarian award is unrestricted. A homestead patent, a residential free patent, an emancipation patent and a CLOA do not become identical merely because each can support a title. Identify the source of the grant and the particular law before deciding transferability.

RA 10023 supplies a separate residential free-patent framework. Its statutory area limits are 200 square metres in highly urbanized cities, 500 in other cities, 750 in first- and second-class municipalities and 1,000 in other municipalities, with additional qualifications and exclusions. A parcel below an area ceiling does not automatically qualify. Verify the applicable locality category and current implementation instead of deciding it from a mailing address alone.

The residential pathway also requires the stated actual residence and continuous possession and occupation under a bona fide claim for at least ten years, personally or through a predecessor. Section 3 specifies an actual survey by a licensed geodetic engineer approved by DENR, a technical description and supporting affidavits from two disinterested local residents. Read the residential zoning, public-use exclusion and other statutory scope conditions together. This ten-year residential requirement is different from the twenty-year routes under RA 11573.

Agrarian awards also require their own review. The mere passage of an anniversary does not establish every transfer, payment, beneficiary or land-use condition. DAR records and the applicable amended law matter. Reclassification in a local plan should not be assumed to replace any separately required agrarian conversion

authority. This lesson does not determine transferability of a particular CLOA. References: sources 6–8; source 1, sections 44 and 46.

14 Surveys boundaries and subdivision

A survey establishes technical information about a parcel. It should connect the plan, lot designation, technical description and actual location. A tax map, marketing sketch or phone measurement can assist preliminary orientation; it should not be treated as an approved cadastral or subdivision survey.

Area is only one attribute. Two descriptions can show the same area yet refer to different locations or shapes. Check bearing and distance data, reference points, adjoining lots, access and possible overlap through competent technical work. A geodetic engineer's investigation is appropriate where identity or boundary issues exceed the appraiser's competence.

An approved subdivision plan and the resulting titles are separate milestones. A proposal dividing one lot into six saleable portions does not establish that six titles have been issued. A physical fence or internal road does not by itself complete registered subdivision. Sections 49–50 address relevant splitting, consolidation and plan-related registration.

Original example: The title area is 1,200 square metres and an occupied polygon appears to contain 1,350. Calculate the apparent difference, but do not add the extra 150 to the legal subject without resolving it. The possible causes include measurement error, encroachment, a wrong reference or a separate interest. The arithmetic identifies the issue; it does not decide ownership.

A site may have legal access over another parcel, informal tolerated access or no established access at all. These conditions can affect utility, development and marketability differently. Establish the actual rights and physical conditions rather than treating a nearby paved road as proof of an enforceable right of way. Reference: source 1, sections 44 and 49–50.

15 Lost copies changes and conflicting records

Losing the owner's duplicate is different from destruction of the Registry's record. Section 109 provides a route involving notice and a petition, followed by the required court process, for replacement of a lost duplicate. A photocopy or self-written affidavit should not be treated as a replacement duplicate issued under that process.

Withholding a duplicate presents another issue. Section 107 addresses the relevant petition to compel surrender or obtain the prescribed relief. A seller's refusal to deliver the document should not be disguised as a lost-document problem. Establish the actual facts and appropriate legal route.

Section 108 concerns amendment and alteration under its conditions. An appraiser cannot simply correct a title number, registered name or technical area on the photocopy and call the record amended. A handwritten correction is not evidence that the official entry has changed.

Where Registry, deed and survey information conflict, preserve each source and identify the discrepancy. Seek the relevant records and specialist clarification. Do not choose whichever version produces the highest value or assume that the newest-looking document must be authentic and decisive. Reference: source 1, sections 107–110.

16 Report the evidence and the interest accurately

A useful appraisal file connects the defined interest with the title record, instruments, technical identification, occupancy and relevant restrictions. Record what was obtained, its date, the material entries reviewed and unresolved issues. Describe the legal opinion or technical survey relied on and its scope rather than implying that the appraiser supplied those specialist determinations.

If the bank asks for the existing ownership interest subject to a lease, the report should identify that actual interest and its relevant terms. If a separate scenario assumes cancellation of an unresolved claim or completion of subdivision, name the scenario clearly and explain its support. A hypothetical clean-interest scenario does not establish that the current record is clear.

No universal discount for untitled land or title litigation is prescribed here. Market consequences require evidence concerning the interest, risks, transfer conditions, use and buyer behaviour. An unsupported percentage can conceal rather than measure the uncertainty. Where the missing facts prevent reliable analysis, seek further work or revise the scope and deliverable.

An original report note might read: The available record identifies Lot 214-B and the stated registered owner. The supplied tax declaration and proposed sketch do not establish the additional advertised area. A current complete title copy, underlying instruments and technical reconciliation are needed before an opinion using the larger area can be supported. This note states the evidence gap without deciding a boundary dispute.

Lesson 13 develops family property, contracts and succession. It will help explain who can act concerning an identified interest. This lesson establishes the evidence and tenure questions that should already be visible before a sale, inheritance or appraisal scenario is analyzed.

17 Ten worked title and tenure cases

Try each question before reading its solution. The cases are fictional. Supplied prices and quantities are teaching assumptions. Identify the decisive document or legal condition and explain the next investigation.

Case 1 The tax declaration offered as title

Question: Nilo presents twenty years of tax receipts and a tax declaration for a fenced parcel. He asks the appraiser to state that these conclusively establish his ownership. What is the proper response?

Solution: Recognize them as relevant evidence, then investigate the legal status and accompanying documents. They do not conclusively establish ownership.

Reasoning: Determine whether the land is registered, private or qualifying public land. Possession and tax evidence have significance under the applicable rule; they should not be promoted to a Torrens certificate.

Case 2 The deed awaiting registration

Question: Lira has a notarized deed from the registered owner. The current TCT still names the seller. How should the report describe the evidence?

Solution: Identify the registered owner shown in the record and the documented transaction separately. Establish the requested interest and registration status.

Reasoning: The deed can matter between the parties. Registration has the section 51 effect concerning third persons. Neither treating the deed as meaningless nor declaring an already-issued TCT in Lira’s name follows from these facts.

Case 3 The old adverse claim

Question: A current title copy shows an adverse claim registered sixty days earlier. The client says it automatically expired after thirty days. Is that sufficient?

Solution: No. Investigate the claim and its actual cancellation status.

Reasoning: Sajonas explains why the thirty-day language must be read with the cancellation provisions. Passage of time alone does not establish a cancelled annotation or decide ownership.

Case 4 The larger occupied polygon

Question: The title shows 1,200 square metres; the occupied area is estimated at 1,350. The teaching unit rate is PHP 8,000 per square metre. Calculate the apparent area difference and arithmetic impact.

Solution: The difference is 150 square metres. At the stipulated rate, it represents PHP 1,200,000.

Reasoning: 150 × 8,000 = 1,200,000. This is sensitivity arithmetic, not an opinion that the extra area belongs to the owner or contributes that amount to value. Obtain technical and legal reconciliation.

Case 5 The pending subdivision

Question: A developer presents a proposal for six lots within a titled 3,000-square-metre parcel. Can the appraiser describe six separately issued titles?

Solution: No. Verify plan approval and the actual registration and title outcomes.

Reasoning: A proposal, an approved plan and issued titles are different milestones. Existing-interest and assumed-completion analyses need separate definitions.

Case 6 The forest land occupied for decades

Question: A claimant establishes twenty-five years of occupation but the identified land remains forest-classified. Does time alone satisfy amended section 14(1)?

Solution: No. Qualifying alienable and disposable status is also required.

Reasoning: The amended possession period does not convert forest land into alienable agricultural public land. Visible cultivation does not establish legal classification.

Case 7 The amended possession period

Question: A study note says every imperfect-title application must prove possession since June 12, 1945. Which update is needed for the section 14(1) pathway?

Solution: Read RA 11573. The amended provision uses the stated twenty-year period immediately before application, together with its other conditions and limit.

Reasoning: Use the current statutory route, qualifying land, possession evidence and identification. Do not treat twenty years as a stand-alone entitlement for every parcel or applicant.

Case 8 The agricultural free patent

Question: A section 44 agricultural free patent predates RA 11231. A buyer relies on an old blanket five-year restriction table. What must be considered?

Solution: Apply RA 11231 to the identified patent and transaction, including its retroactive treatment and stated earlier redemption proviso.

Reasoning: The amendment removes specified Public Land Act restrictions for that category. It should not be extended automatically to a homestead patent or CLOA.

Case 9 The paid mortgage

Question: The owner supplies a bank payment receipt but a current title copy still contains the mortgage annotation. What conclusion is supportable?

Solution: The payment evidence and the registered annotation must be reconciled; cancellation is not established solely by the receipt.

Reasoning: Investigate discharge documents and the registration outcome. Separately define property value and any debt or proceeds calculation.

Case 10 The lost duplicate

Question: A seller says the owner’s duplicate was lost and provides an affidavit plus an ordinary photocopy. Can those be treated as a newly issued replacement duplicate?

Solution: No. Verify the section 109 process and the actual replacement document, if issued.

Reasoning: Loss of an owner’s duplicate is different from loss of the Registry record. Notice, petition and the proper court process are relevant; the appraiser cannot create the replacement.

18 Synthetic title and deed study file

This is a simplified original classroom record. It is not an official certificate, Registry form, actual transaction or document for execution. The references are fictional. Read it as evidence supplied for a question, with the omissions expressly stated.

Teaching entry	Supplied fact
Title reference	STUDY TCT 12-001 • Fictional Registry
Registered owner	Harana Development Corporation
Parcel identity	Lot 214-B • Fictional plan STUDY PLAN 12-B
Recorded area	1,200 square metres
Mortgage entry	Meridian Bank • Entry date 1 September 2026
Adverse claim	Lira alleges an earlier purchase of a portion • Entry date 15 July 2026
Copy date	5 October 2026
Supplied omissions	No mortgage cancellation, claim cancellation or separate subdivision titles shown

Teaching deed excerpt

A fictional deed dated 10 August 2026 identifies Harana as seller and Nilo as buyer of the ownership interest in Lot 214-B, referring to the 1,200-square-metre title description. The extract states a price of PHP 9 million. The file does not supply evidence of completed registration of that deed, the signatory's corporate authority or satisfaction of every transaction requirement.

Other supplied evidence

A tax declaration refers to Harana and 1,200 square metres. A proposed sketch labels the occupied polygon 1,350 square metres and shows six planned lots. The inspector used a neighbouring paved strip to reach the site; no instrument establishing access rights is supplied. Harana states that the bank loan was paid. The original teaching rate for quantity sensitivity is PHP 8,000/sqm. These facts do not establish a verified market rate or a settled legal conclusion.

Your first interpretation

Keep the registered ownership record, Nilo's deed and Lira's asserted interest separate. Do not treat the deed price as the property's market value or infer that the proposed six lots already have issued titles. Use the following worksheet to identify what each record supports and what remains to be established.

19 Title evidence worksheet

Allow about 45 minutes. Use the synthetic file and the lesson. Write key points below and fuller responses on a separate sheet. This is an original learning worksheet, not a prescribed appraisal or Registry form.

1 Read the teaching record

Use the synthetic record supplied above. State the registered owner, title reference, lot and area. Identify three separate evidence issues that prevent calling the file fully reconciled.

_____

_____

_____

2 Investigate the annotations

The file contains an old adverse claim and a mortgage said to be paid. Explain why neither should be ignored and identify the supporting evidence to request.

_____

_____

_____

3 Reconcile the area

The title states 1,200 sqm and the sketch states 1,350 sqm. At the fictional rate of PHP 8,000/sqm, calculate the difference and arithmetic impact. Explain why this calculation does not establish legal area or market value.

_____

_____

_____

4 Separate legal and physical access

The inspector reaches the site over a neighbouring paved strip. The documents supplied do not establish a right of way. Explain what must be checked before calling the access legally secure.

_____

_____

_____

Title evidence worksheet continued

5 Update the law notes

Correct these statements: all imperfect titles require possession since 1945; every free patent has the same five-year restriction; an adverse claim disappears automatically on day thirty-one.

_____

_____

_____

6 Distinguish the milestones

Explain a signed deed, Registry application receipt, new TCT and approved subdivision plan. State what each does not establish by itself.

_____

_____

_____

7 Check a public-land claim

An individual relies on twenty-two years of occupation and an unapproved sketch. Identify the land-classification, possession and statutory certification evidence needed for the claimed amended judicial-confirmation route.

_____

_____

_____

8 Write the appraisal response

Draft a short response to a bank asking you to value the existing registered interest as if it already has six issued subdivision titles and no adverse claim. Offer a responsible next step without adjudicating the claim.

_____

_____

_____

20 Review and examination checks

Issue	Essential distinction
Registration	Original registration differs from later registered dealings
Title and deed	The record and the transaction instrument require separate reading
Tax declaration	Relevant claim evidence, not conclusive title
Adverse claim	No automatic disappearance solely after thirty days
Lis pendens	Notice of pending litigation, not the final judgment
Registered land	Adverse possession does not defeat the registered title under section 47
Public land	Visible use differs from legal classification
RA 11573	Read the amended twenty-year route with all its conditions
RA 11231	Identify the section 44 agricultural free-patent category
Subdivision	Proposal, approved plan and issued titles are separate milestones
Survey difference	Arithmetic identifies a discrepancy without deciding legal area
Appraisal	Define the interest and report uncertainty without adjudicating title

Read the decisive facts

Ask whether the question describes registered land, unregistered private rights or public land. Identify the instrument, the relevant date and the exact interest. Read the annotation and its underlying document before choosing a rule. Match an amendment to the particular grant or registration pathway it changes.

For a calculation, label the result by what it represents. An area sensitivity is not a boundary decision, and a debt subtotal is not automatically property value. Record missed questions by evidence, annotation, amendment, survey or interest definition. Lesson 13 develops family property, contracts and succession.

21 Original practice test

Choose one best answer. Suggested time: 35 minutes. These questions are newly authored learning exercises, not actual, recalled or reproduced PRC items. Apply the stated facts and the checked legal distinctions.

1. Which record most directly identifies the registered ownership interest in the stated parcel?

A. A seller’s price advertisement

B. A utility bill alone

C. The relevant current complete title record

D. An unsigned proposed sketch

2. A buyer has a deed but the current TCT names the seller. Which response is best?

A. Identify the deed and current registration status separately

B. Assume the deed has no effect between anyone

C. State that the Registry already issued the buyer’s TCT

D. Replace the seller’s name in pen

3. Which evidence statement is correct?

A. A tax declaration conclusively proves ownership

B. A tax receipt creates an OCT

C. A fence automatically defeats every registered title

D. Tax records can support a claim but are not conclusive ownership proof

4. A title contains an adverse claim registered forty-five days ago. What is the strongest next step?

A. Ignore it on day thirty-one

B. Investigate the underlying claim and actual cancellation status

C. Treat the claimant as adjudged owner

D. Cancel it in the appraisal report

5. What is the amended section 14(1) possession period taught here?

A. Exactly one year after a tax payment

B. At least twenty years immediately preceding application, with the stated conditions

C. Possession beginning in 2027 for every applicant

D. Ten years regardless of classification

6. A claimant occupies forest-classified land for thirty years. What follows solely from those facts?

A. The land automatically becomes disposable

B. A tax payment compels issuance of an OCT

C. A private survey overrides classification

D. The qualifying land-classification condition is not established

7. Which distinction best describes an OCT and a TCT?

A. An OCT relates to original registration and a TCT to subsequent registration dealings

B. A TCT is always invalid

C. An OCT is only a tax document

D. Both are salesperson accreditation cards

8. The Registry file identifies 1,200 sqm while a brochure advertises 1,350 sqm. Which action is best?

A. Use the larger figure automatically

B. Average the numbers without explanation

C. Reconcile identity and area using competent evidence

D. Replace the technical description yourself

9. Which statement about registered land is supported by section 47?

A. Every occupier becomes owner after twenty years

B. Paying taxes for ten years cancels a TCT

C. The appraiser may award ownership to the occupant

D. Adverse possession does not acquire title in derogation of the registered owner’s title

10. What does recording a deed affecting unregistered land establish by itself?

A. A recorded instrument under the applicable recording system rather than completed Torrens original registration

B. A newly issued OCT

C. A guarantee of undisputed ownership

D. An approved subdivision

11. A mortgage is recorded and the owner says it was paid. Which response is best?

A. Ignore the entry without evidence

B. Deduct a universal 50% from property value

C. Check discharge documentation and the registered cancellation outcome

D. Declare the lender owner immediately

12. A proposed six-lot sketch is supplied. Which conclusion is supportable?

A. Six individual TCTs necessarily exist

B. The proposal alone does not establish issued subdivision titles

C. The appraiser can create the lot titles

D. Survey approval is unnecessary

13. Which grant is specifically addressed by RA 11231's removal of the identified restrictions?

A. Agricultural free patents issued under section 44 of the Public Land Act

B. Every CLOA without qualification

C. Every public-land lease

D. Every homestead grant automatically on the same terms

14. What does a notice of lis pendens most directly concern?

A. A guarantee that the plaintiff won

B. An automatically paid tax

C. Pending litigation affecting the relevant property rights

D. A surveyor's final boundary certificate

15. Which statement about a certified true copy is best?

A. It guarantees physical vacancy

B. It guarantees no off-record statutory burden

C. It automatically replaces a lost owner's duplicate for every dealing

D. It supplies certified evidence of the record, requiring attention to date and completeness

16. A private corporation proposes receiving public land through an ordinary individual free-patent route. Which issue comes first?

A. Only its brochure design

B. The public-land status, applicant qualification and applicable constitutional and statutory route

C. Whether its directors like the property

D. Whether a fence exists

17. Which action best handles a title area believed to be erroneous?

A. Preserve the discrepancy and seek the proper technical and legal correction process

B. Erase the figure on the copy and issue a corrected appraisal title

C. Treat the seller’s estimate as binding

D. Assume every area difference is harmless

18. Which proof is specified by RA 11573 section 7 for the described judicial-confirmation land classification?

A. An unapproved seller’s sketch

B. The required certification by the designated DENR geodetic engineer imprinted on the approved plan with the prescribed particulars

C. A utility bill

D. A broker’s verbal assurance

19. For the RA 10023 residential free-patent framework, what is the stated statutory ceiling in a highly urbanized city?

A. Twelve hectares

B. 1,000 sqm

C. 5,000 sqm

D. 200 sqm

20. An owner’s duplicate is said to be lost. What is the best answer?

A. An ordinary photocopy automatically becomes the replacement

B. The appraiser may issue a new duplicate

C. Verify the applicable section 109 process and actual replacement outcome

D. Loss necessarily means the Registry record was destroyed

22 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	C
2	A	12	B
3	D	13	A
4	B	14	C
5	B	15	D
6	D	16	B
7	A	17	A
8	C	18	B
9	D	19	D
10	A	20	C

1. C The title record is central evidence of the registered interest; other evidence and material legal incidents still require review.

2. A An instrument and its completed registration are separate matters. Preserve the effect of section 51 concerning third persons.

3. D Tax declarations and receipts can matter with other evidence; their presence alone is not conclusive ownership proof.

4. B The passage of thirty days alone does not establish cancellation. The annotation is also not an ownership judgment.

5. B RA 11573 supplies the stated twenty-year rule; qualifying land and the remaining statutory conditions still matter.

6. D Duration does not convert forest land into qualifying alienable and disposable agricultural public land.

7. A The certificate types relate to registration history. A transfer certificate is not inherently weaker merely because it is a TCT.

8. C The difference is material and requires technical and legal clarification where appropriate.

9. D The rule for registered land must be distinguished from qualifying public-land confirmation routes.

10. A Section 113 recording is different from bringing land under the Torrens system.

11. C Payment, discharge evidence and record status need reconciliation. A debt subtotal is also distinct from the property-value opinion.

12. B Verify plan approval and actual registration and title milestones separately.

13. A Identify the grant category. The statute's removal should not be generalized to all patents and awards.

14. C It gives notice of the pending proceeding and possible consequences, rather than proving its final outcome.

15. D Certified record evidence does not resolve every physical condition, statutory burden or replacement requirement.

16. B The Constitution distinguishes public-land acquisition from qualified ownership of private land. SEC registration alone does not settle eligibility.

17. A The appraiser identifies the issue and its consequences; official alteration requires the proper process.

18. B The provision describes the certification, sworn statement and classification references. Match the evidence to the identified parcel.

19. D The statutory highly urbanized city ceiling is 200 sqm. Area alone does not prove all qualifications or exclusions.

20. C Replacement involves the prescribed notice and petition process. Distinguish the owner's duplicate from the Registry record.

Worksheet model responses

Response 1

The teaching record identifies Harana Development Corporation, synthetic reference STUDY TCT 12-001, Lot 214-B and 1,200 sqm. Material issues include the conflicting sketch area, unresolved adverse claim, mortgage cancellation status and absent subdivision-title evidence.

Response 2

Obtain the relevant claim instrument and actual cancellation evidence or legal status, plus mortgage release or discharge documentation and the current registration outcome. Age of the claim and a payment assertion alone do not clear the record.

Response 3

1,350 − 1,200 = 150 sqm; 150 × PHP 8,000 = PHP 1,200,000. The difference is a quantity sensitivity using stipulated inputs. Ownership, parcel identity and the rate's market relevance remain to be established.

Response 4

Determine the route, parcel owner, recorded or otherwise legally established access rights, terms, width and practical usability. Tolerated passage may differ materially from an enforceable easement. Seek legal and survey clarification as appropriate.

Response 5

RA 11573 updates the stated section 14(1) possession rule to twenty years with the other statutory conditions. RA 11231 affects the identified section 44 agricultural free patents rather than every grant. Sajonas rejects automatic disappearance of the adverse claim through time alone.

Response 6

A deed documents the transaction; it is not itself an issued TCT. A receipt shows submission; it does not alone prove the final Registry outcome. A new TCT shows the issued registration record but does not settle every site condition. An approved plan does not by itself prove separate titles have issued.

Response 7

Establish that the identified parcel is qualifying alienable and disposable land not already covered by a certificate or patent, the applicable area and applicant conditions, and the required possession evidence. Review the section 7 certification by the designated DENR geodetic engineer with its approved-plan and classification particulars.

Response 8

Explain that the requested actual-interest analysis must reflect the current evidenced rights and unresolved entries. Seek current records, underlying instruments, legal status and subdivision evidence. A separately agreed and supportable completion or cleared-interest scenario must be clearly identified; it does not certify the actual claim has disappeared.

23 Sources and 2027 preparation status

The sources below support the selected legal rules taught here. The original PD 1529 text must be read with subsequent amendments, particularly RA 11573. Supreme Court decisions cited here support the specific adverse-claim and tax-evidence distinctions; they are not presented as a complete digest of all registration jurisprudence.

The explanations, fictional documents, cases and questions are original. The synthetic file is deliberately incomplete to teach evidence evaluation. The workflow is a learning sequence rather than a complete transaction checklist. No proprietary reviewer or protected examination item supplies the lesson's rules.

No 2027 PRC subject weight, examination date, detailed syllabus revision or later legal change is asserted as verified. Registry fees, processing times, complete DENR procedures, agrarian transfer conditions and special shoreline or ancestral-tenure rules require their applicable current sources. Read later official issuances and controlling decisions before the examination or an actual assignment.

1 Property registration framework

PD No. 1529, 11 June 1978. Selected sections: 2, 10, 32, 39–55, 70, 76–77, 107–110 and 113. Read section 14 with RA 11573 rather than treating the historical text as consolidated current wording.

https://lawphil.net/statutes/presdecs/pd1978/pd_1529_1978.html

2 Official title-copy service

LRA eSerbisyo portal and certified-title-copy information, checked 11 October 2026. Supports the availability of the online request service; this lesson does not promise a specific fee, coverage or completion period.

https://eserbisyo.lra.gov.ph/

3 Adverse claim interpretation

Sajonas v Court of Appeals, G.R. No. 102377, 5 July 1996. Read the Court's interpretation of the thirty-day wording together with the cancellation provisions.

https://lawphil.net/judjuris/juri1996/jul1996/gr_102377_1996.html

4 Tax evidence

Supreme Court, G.R. No. 169251, 20 December 2006. Selected discussion distinguishes relevant tax declarations from conclusive proof of ownership. Apply decisions to their legal issue and facts.

https://lawphil.net/judjuris/juri2006/dec2006/gr_169251_2006.html

5 Public and private land

1987 Constitution, Article XII, sections 2–8. Public-domain classification, alienability and applicant qualifications must be distinguished from eligibility to hold already private land.

https://lawphil.net/consti/cons1987.html

6 Imperfect title and agricultural patent amendments

RA No. 11573, approved 16 July 2021. Selected sections 2–7 and 9. Amends Public Land Act provisions and PD 1529 section 14 and specifies the judicial-confirmation classification certification.

https://lawphil.net/statutes/repacts/ra2021/ra_11573_2021.html

7 Agricultural free patent reform

RA No. 11231, approved 22 February 2019. Sections 3–4 address the identified restrictions and retroactive treatment for section 44 agricultural free patents, with the stated earlier redemption proviso.

https://lawphil.net/statutes/repacts/ra2019/ra_11231_2019.html

8 Residential free patents

RA No. 10023, approved 9 March 2010. Sections 1–3 set the stated area limits, scope and application evidence, including the ten-year condition. The area limits alone do not establish applicant or parcel eligibility.

https://lawphil.net/statutes/repacts/ra2010/ra_10023_2010.html

9 Condominium interest foundation

RA No. 4726, approved 18 June 1966. Sections 2–4 identify the separate unit and common-area interests and the enabling or master deed. Detailed condominium coverage is developed in Lesson 15.

https://lawphil.net/statutes/repacts/ra1966/ra_4726_1966.html

REALEX

Lesson 13

Family Property
Contracts and Succession

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 11 October 2026

Property rights within a family can change the interest available for sale, mortgage or appraisal. This lesson explains marital property regimes, consent, contracts, representation and inheritance through original situations that an examinee can analyze step by step.

The fictional Harana assignment continues with a proposed purchase of family-owned land. All cases, figures, worksheets and questions are newly authored study material. Teaching amounts and family classifications are expressly supplied assumptions, not verified market values or determinations in an actual estate.

The lesson uses checked Philippine statutory concepts and selected Supreme Court decisions. It does not assert a confirmed 2027 PRC topic weight or replace case-specific legal analysis. Keep the source notes with your revision copy.

Your learning goals

- Distinguish capacity, ownership, representative authority and consent.
- Identify the marital property regime and relevant acquisition dates.
- Compare ACP and CPG assets and rental income.
- Recognize spousal and family-home consent requirements.
- Explain essential contract requisites and distinguish kinds of defects.
- Separate sale perfection, ownership transfer and registration effects.
- Read agents' powers for sales, mortgages and longer leases.
- Distinguish an undivided share from a physical portion.
- Liquidate marital property before calculating inheritance.
- Compare intestate shares with legitimes under the stated simple cases.
- Investigate wills, settlement conditions and omitted heirs.
- Define the appraisal subject when legal evidence is incomplete.

Study plan: Allow four to five hours in two sessions. Read sections 1–8, then sections 9–16. Attempt the ten worked cases, complete the two-page worksheet and answer the 20-question test before checking the explanations.

1 Start with the interest and the person signing

A title identifies the registered ownership record. It does not, by itself, answer every question about a spouse's property rights, an agent's authority or an heir's ability to sell the whole parcel. An appraisal assignment must connect the identified property with the actual interest being valued. Ask who owns that interest, what limits it and what evidence supports the answer. [1–3]

Suppose Meridian Bank asks for an appraisal of a family-owned lot that Harana Development proposes to buy. Lira signs a sale document, Nilo says he contributed to the purchase, and a third person presents a document called an SPA. Those facts raise three separate questions: classification of the property, required consent and authority to represent someone else. A signature on a notarized document does not make those questions disappear.

Capacity means legal ability to act. Ownership means having the right concerned. Authority means permission or power to act for another. Consent means agreement to the particular transaction where required. A person may be an adult yet have no authority to sell a sibling's land. An agent may be properly appointed for rent collection yet lack the special authority to mortgage the property.

Your appraisal response is practical: identify the asserted interest, request the material documents, state what is established and explain unresolved matters. An appraiser does not issue a judicial declaration of ownership or prescribe an inheritance distribution. The sequence used here is a study method, not a complete conveyancing procedure.

2 Establish the governing property regime

Before applying a marital property rule, identify the marriage date, applicable law, valid marriage settlements and relevant later court orders. Under Family Code Articles 74–77, premarital settlements govern within legal limits; absent a valid agreed regime, absolute community is the Code's default. Settlements must meet the prescribed written and registration conditions, including registration requirements affecting third persons. [1]

Do not apply that default mechanically to every married owner. The Family Code took effect on 3 August 1988. Earlier marriages may have an existing conjugal partnership governed by the applicable historical rules, with vested rights preserved. A valid settlement may prescribe a different regime. The date when ownership vested can also differ from the date a certificate was issued. [1,4]

Collect the marriage record, premarital settlement if any, acquisition deed, payment evidence, donation or succession documents and relevant judgments. A description such as "Lira, married to Nilo" on a title is useful civil-status information; it does not substitute for evidence establishing acquisition during marriage and the applicable classification. Keep proof of marriage separate from proof of property acquisition.

For the ordinary numerical exercises in this lesson, the parties are Filipino citizens, their marriage and children's stated status are undisputed, and Philippine Civil Code succession applies. No foreign-law or special personal-law issue is included unless expressly stated. These conditions prevent a simplified example from becoming an unsupported rule for every family.

3 Absolute community of property

Absolute community of property, or ACP, generally includes property owned at the celebration of marriage and property acquired afterward, subject to the Code and valid settlements. Therefore, "bought before marriage" does not always mean "exclusive." Article 92 identifies important exclusions. [1: Articles 91–93]

Property acquired gratuitously during marriage by one spouse, and its fruits and income, is excluded unless the donor, testator or grantor expressly provides that it shall form part of the community. Property for personal

and exclusive use is excluded, but jewelry is treated differently. Also excluded is premarital property of a spouse who has legitimate descendants by a former marriage, together with its fruits and income.

Consider an ordinary lot owned by Lira before her 2010 marriage. Assume no settlement changes ACP, neither spouse has legitimate descendants by a former marriage, and no other exclusion applies. The lot ordinarily enters the community. Change the facts to a lot inherited solely by Lira in 2015, without a direction including it in the community: the statutory gratuitous-acquisition exclusion becomes relevant.

Acquisition during marriage triggers the Article 93 presumption of community ownership unless exclusion is proved. A presumption is a starting legal inference supported by its factual prerequisites; it is not permission to ignore contrary evidence. Investigate the deed and source of acquisition. A family statement that a lot "belongs to mother" is not enough to resolve the classification.

4 Conjugal partnership of gains

Under a conjugal partnership of gains, or CPG, the spouses retain their exclusive property while designated earnings, acquisitions and net fruits go into the partnership. Article 109 includes property brought into the marriage, gratuitously acquired property, specified exchanges or redemptions involving exclusive property, and purchases with exclusive money. [1: Articles 106–120]

The important contrast is the treatment of income from exclusive property. Under CPG, net fruits from a spouse's exclusive property are partnership property under Article 117. Under ACP, the Article 92 gratuitous-acquisition exclusion extends to the fruits and income unless the specified contrary direction exists. Identify the regime before answering a rental-income question.

Fact	ACP, on the stated facts	CPG, on the stated facts
Ordinary premarital property	Generally community; check exclusions	Exclusive property brought to marriage
Sole inheritance during marriage	Excluded absent the specified inclusion direction	Exclusive gratuitous acquisition
Net rent from that inheritance	Excluded under Article 92 on these facts	Partnership net fruits under Article 117

Article 116 presumes that property acquired during marriage is conjugal unless the contrary is proved, whether registered in one or both spouses' names. Establish acquisition during marriage before relying on the presumption. Title issuance after marriage does not necessarily prove that ownership was first acquired after marriage.

Installment purchases and improvements deserve careful reading. Article 118 looks to when full ownership vested and provides reimbursement for advances by the other fund. Article 120 addresses improvements on exclusive property, comparative amounts and reimbursement upon liquidation. "Common money paid for a building" does not justify an immediate, universal conclusion that all underlying land became conjugal. Obtain the acquisition and improvement evidence and seek legal classification when material.

5 Separation and unions without marriage

Complete separation of property allows each spouse to own and administer a separate estate, subject to the governing settlement and the Code. Partial separation may leave other property in the absolute community.

Separation of property also does not eliminate the spouses' responsibilities for family expenses. [1: Articles 143–146]

Living apart is different from having a court-decreed separation of property. Separation in fact does not automatically dissolve ACP or CPG. Articles 134–140 provide judicial routes and protections for creditors. A voluntary dissolution during marriage involves a joint verified court petition and the applicable court measures; a privately signed statement that "our property is now separate" cannot simply replace those requirements.

Article 147 covers the stated union of parties capacitated to marry each other who live exclusively as spouses without marriage, or under a void marriage. It contains joint-acquisition presumptions and recognizes household care as contribution. It also restricts inter vivos disposition of a common share without the other's consent while that cohabitation continues. [1: Articles 147–148]

Article 148 concerns other unions and requires proof of actual joint contribution of money, property or industry for the relevant co-owned acquisitions. Its presumptions operate within that framework. Do not assume that every asset of every cohabiting couple is automatically divided equally. The legal capacity, nature of the union, acquisition and contribution evidence all matter.

6 Written consent and the family home

Administration is not the same as disposition. Family Code Articles 96 and 124 govern community and conjugal property respectively. The relevant disposition or encumbrance requires the other spouse's written consent or the applicable court authority. The provisions expressly describe the transaction without such authority or consent as void, with a continuing-offer mechanism on the stated conditions. [1]

If an exercise stipulates that current Article 124 applies, a lot is conjugal, only one spouse agrees to mortgage it and there is no written consent or court authority, do not describe the mortgage as automatically valid merely because that spouse manages the property. Conversely, do not treat Article 124 as a timeless rule for every historical transaction without checking the applicable law and dates.

The family home introduces additional questions. Article 158 requires the prescribed written consents for its sale, alienation, donation, assignment or encumbrance, including the person constituting it, that person's spouse and a majority of beneficiaries of legal age. Determine who qualifies as a beneficiary under Article 154; every visitor or adult relative is not automatically a beneficiary. An exclusively owned dwelling can still raise family-home issues. [1: Articles 152–159]

Protection of the family home is not absolute immunity from enforcement. Article 155 lists exceptions, including taxes and debts secured by mortgages on the premises. Article 159 also restricts partition after death under its stated conditions. Do not infer immediate freedom to partition a family home merely because an owner died. Exact exemption amounts and their application require a current legal check rather than reliance on a memorized historical number.

7 Contracts: essentials, form and different defects

Article 1318 identifies consent, a certain object and cause as essential contractual requisites. In an onerous contract, cause refers to the legally recognized exchange or promise, rather than the buyer's personal motive. The property or right must be determinable; "some land I may choose later" can present a different problem from a precisely identified lot. [2: Articles 1318–1358]

Contracts are generally perfected by consent, subject to exceptions such as real contracts requiring delivery. Article 1356 recognizes special legal requirements of form, validity, enforceability or proof. Article 1358 addresses public-document requirements. Do not convert that provision into the assertion that every unnotarized land agreement is automatically void. A required form can serve different legal purposes.

The Statute of Frauds under Article 1403 includes executory agreements for land sales and leases longer than one year. Its writing requirement concerns enforceability on the stated conditions; it is not a general declaration that all oral contracts are void. Ratification under Article 1405 and performance-related doctrine require careful application. Obtain a legal conclusion where the enforceability issue controls the assignment.

Distinguish four categories. Rescissible contracts are validly constituted but subject to the statutory remedy for specified prejudice. Voidable contracts include those involving the specified incapacity or vitiated consent and can be ratified. Unenforceable contracts include specified unauthorized contracts and Statute of Frauds cases unless ratified. Void or inexistent contracts have the defects specified by law and cannot be ratified as ordinary voidable contracts can. [2: Articles 1380–1409]

Category	Main distinction
Rescissible	Valid constitution; specified prejudice and remedy
Voidable	Specified incapacity or consent defect; ratification possible
Unenforceable	Specified authority or enforceability problem; examine ratification
Void or inexistent	Specified invalidity; ordinary ratification cannot cure it

Future things are not the same as future inheritance. Article 1347 generally prohibits contracts upon future inheritance except cases expressly authorized by law. A living parent's child cannot treat an expected inheritance as an already owned share simply because that child expects to inherit. Investigate the present ownership and the actual source of the proposed right.

Notarization cannot cure lack of ownership, a forged signature, every authority defect or an unlawful object. Nor does a low price alone automatically invalidate an agreement. Apply the exact defect and rule. In an examination question, locate the decisive fact: minor, fraud, absent written land-sale agency authority, or an executory oral agreement. Different facts lead to different legal analyses.

8 Sale, contract to sell and purchase payments

A sale is generally perfected when the parties agree on the object and price. Perfection, delivery transferring ownership and registration effects concerning third persons are separate milestones. Civil Code Articles 1475 and 1477 support that distinction. A deed price is the contractual price, not automatically the property's market value. [2]

A contract to sell can reserve ownership to the seller until a stipulated positive condition, commonly full payment, is fulfilled. Examine the terms and the parties' arrangement rather than relying only on the document heading. The Supreme Court's discussion in Coronel v Court of Appeals explains the distinction from a contract of sale. [5]

Earnest money in a sale is treated under Article 1482 as part of the price and evidence of perfection. An option is an arrangement concerning a choice to buy within the agreed terms; a binding option requires attention to the separate consideration discussed in Articles 1324 and 1479. Calling every deposit "option money" or every reservation fee "earnest money" skips the actual agreement.

For appraisal, ask whether the subject is ownership, a buyer's contractual interest, the seller's retained interest or an assumed completed acquisition. If ownership is reserved and conditions remain unmet, do not report that the proposed buyer already has an unrestricted ownership interest. Identify the legal evidence and the scenario used.

9 Authority to act through an agent

An agent acts on another's behalf within the established authority. A general instruction to manage a property normally concerns administration. Article 1878 requires special powers for specified acts, including transmitting or acquiring ownership of an immovable, creating or conveying real rights, leasing property for more than one year and accepting or repudiating inheritance. [2: Articles 1868, 1877–1879]

Article 1874 is especially important: when an agent sells land or an interest in it, the agent's authority must be in writing; otherwise, the sale is void under that provision. Article 1879 adds that special authority to sell does not include authority to mortgage, and special authority to mortgage does not include authority to sell.

Read the instrument, not just its title "Special Power of Attorney." Match the principal, property, transaction, limits and relevant date. A power to collect monthly rent is not a power to sell the building. A power to mortgage Lot A is not automatically a power to encumber Lot B. Evidence of identity and execution still matters.

Death may affect agency under Article 1919, with exceptions addressed in Articles 1930–1931. Do not assume an old SPA necessarily authorizes a post-death sale. Establish death and transaction dates and obtain the applicable legal determination. A principal's former authority and an heir's present authority are different sources of power.

10 Lease, mortgage, donation and retained rights

A lease allows the agreed use or enjoyment for its term without making the tenant the owner. Examine term, rent, escalation, renewal, termination, subleasing and improvements. Where the lessor acts through an agent, a lease exceeding one year brings Article 1878's special-power requirement into focus. Distinguish that agency question from the contract's own form and enforceability requirements. [2]

A mortgage secures an obligation; it does not make the mortgagee the current owner merely upon signing. The mortgagor's ownership, capacity, authorization and applicable registration requirements matter. Civil Code Articles 2085 and 2125 provide key conditions. Separate the property interest from the loan balance and any proceeds calculation.

An immovable-property donation has special formal requirements under Article 749, including a public instrument and the prescribed acceptance. Acceptance in a separate public instrument carries additional notification and notation requirements. This differs from treating public-document form as merely optional evidence for every transaction. Donations between spouses also have restrictions under Family Code Article 87, with its stated exception. [1–2]

A donor may retain a usufruct while transferring the underlying ownership, subject to a legally effective arrangement. Ownership burdened by a retained right differs from unrestricted ownership. The appraiser must investigate the duration and scope of the retained benefits before selecting comparable interests or valuing cash flows. Family relationship alone supplies no market discount percentage.

11 Co-ownership: share, parcel and partition

Co-ownership means that several persons hold undivided interests in the same thing. A one-third share in a 900-square-metre lot is not, by itself, legal ownership of the west 300 square metres. Physical occupation, an informal sketch and a proposed partition must be distinguished from an effective allotment and its registration consequences. [2: Articles 484–499]

Article 493 allows a co-owner to alienate, assign or mortgage that person's undivided part, subject to the legal effects tied to what is allotted upon partition. A co-owner cannot thereby convey the other co-owners' shares.

Ordinary co-ownership rules must also be distinguished from special marital-community and Article 147 restrictions.

Article 492 addresses administration by a majority of interests, not simply a majority of people. Article 491 separately concerns alterations. Article 494 recognizes the right to demand partition subject to its qualifications. Where division would make the thing unserviceable, an indivisible property may require an allotment with buyout or a sale and distribution as legally appropriate.

For a whole-property teaching value of PHP 9 million and a one-third interest, PHP 3 million is the proportional arithmetic reference. It is not automatically market value of the separate undivided share. Analyze control, use, transfer constraints, marketability, partition prospects and evidence of transactions in similar interests. Neither an automatic discount nor automatic pro rata market value is supportable merely from the fraction.

12 Death: liquidate the property regime first

Successional rights are transmitted at death under Article 777, but distribution requires identifying the estate, obligations and persons entitled. A death certificate does not show that a surviving spouse now owns the whole property. The spouse's existing property-regime entitlement and inherited entitlement must be separated. [2: Articles 774–781]

Begin with an inventory distinguishing community or partnership property from each spouse's exclusive property. Account for applicable debts, reimbursements and liquidation adjustments. Determine the surviving spouse's property-regime share. The decedent's resulting share and exclusive property form the starting estate, subject to applicable estate liabilities and succession calculations. Family Code Articles 102–103 and 129–130 explain the relevant liquidation framework. [1]

Teaching calculation: assume a net community fund of PHP 12 million after all stipulated liquidation adjustments, equal division, no exclusive property, no further estate deductions and no prior gifts affecting the calculation. The survivor's existing share is PHP 6 million. The other PHP 6 million is the decedent's net hereditary estate. Applying an inheritance fraction to the whole PHP 12 million would use the wrong denominator.

Where there are several heirs, Article 1078 places the estate in common ownership before partition, subject to payment of the decedent's debts. An inherited fraction does not automatically confer exclusive ownership of a named physical room or strip. Distinguish transmission at death, estate administration, effective partition and the resulting registration evidence.

If the decedent leaves only the surviving spouse and two legitimate children, with no will and no other complications, Article 996 gives each of those three heirs an equal share of the PHP 6 million estate: PHP 2 million each. The survivor's combined economic entitlement is PHP 8 million, including the existing PHP 6 million share. These figures do not themselves implement a partition, issue titles or value a separately marketable fractional interest.

13 Intestacy and legitime are different questions

Intestate succession concerns distribution according to law where it applies, including the absence of a governing testamentary disposition. Testamentary succession concerns a valid will, subject to compulsory heirs' protected rights and other rules. Mixed succession is also possible. Do not use the term "legitime" as a synonym for every intestate share. [2: Articles 778–780, 886–892, 960, 996]

A legitime is the reserved portion that the testator cannot freely dispose of because the law protects compulsory heirs. In the simple example of a spouse and two legitimate children, Articles 888 and 892 reserve one-half of the hereditary estate collectively to the children and an amount equal to each child's legitime to

the spouse. With a PHP 6 million net estate, each child's legitime is PHP 1.5 million, the spouse's legitime is PHP 1.5 million, and PHP 1.5 million remains freely disposable on the stipulated facts.

Contrast the intestate example: the same three heirs receive PHP 2 million each. The testate figures identify protected minimum portions in that simplified situation, not necessarily each person's final receipt under an actual will. A lawful disposition of the free portion can increase a beneficiary's total. A spouse and only one legitimate child produce another important distinction: the spouse's Article 892 legitime is one-fourth, while the simple Article 996 intestate share is one-half.

PHP 6m net estate	Simple intestacy	Protected portions under a will
Spouse	PHP 2m	PHP 1.5m legitime
Legitimate child 1	PHP 2m	PHP 1.5m legitime
Legitimate child 2	PHP 2m	PHP 1.5m legitime
Free portion	Not a separate intestate allocation	PHP 1.5m on the stipulated facts

Different combinations of descendants, ascendants, spouse and other children change the rules. Representation, adoption, proven filiation, disinheritance, prior donations, renunciation and special or foreign law require further analysis. Historical Civil Code terminology concerning children must be read with later legislation and controlling decisions. This lesson does not offer a universal inheritance calculator. Treat the stated heir classification and complete family facts as essential inputs.

14 Settlement, probate and an omitted heir

Article 838 requires a will to be proved and allowed before it passes property. A family-produced photocopy of an unprobated will is not a substitute for the legally required process. Probate and the subsequent estate administration and distribution questions should be distinguished. "Named executor" alone does not establish unrestricted authority to sell estate land. Obtain the relevant appointment and court authority. [2]

Rule 74 section 1 permits extrajudicial settlement under its conditions: no will, no debts, heirs all of age or minors represented by judicial or legal representatives duly authorized for the purpose, and the prescribed public instrument and filing. Publication and other applicable procedural requirements also matter. The Supreme Court's decision in G.R. No. 159578 reproduces the relevant conditions and the protection concerning nonparticipating persons. [6]

An extrajudicial settlement is not binding upon a person who did not participate or had no notice under the stated rule. A document called "sole-heir affidavit" cannot turn an omitted child into a non-heir. When a credible omitted-heir issue appears, investigate it and seek legal clarification; do not rely only on the document heading or the fact of notarization.

Do not treat the Rule 74 two-year provisions as a universal guarantee that every possible claim has expired. Their application depends on the issue, participation, notice and relevant jurisprudence. Also distinguish heirship, payment of taxes, registration steps and the authority to execute a conveyance. Completion of one step does not establish completion of all the others.

15 Capacity, special facts and the evidence file

RA 6809 lowered the general age of majority to eighteen, subject to statutory exceptions. A statement that a nineteen-year-old necessarily lacks ordinary contractual capacity because majority begins at twenty-one is outdated. Conversely, being a parent does not automatically confer unrestricted power to dispose of a minor child's land. Investigate representation and authorization applicable to the transaction. [3]

Prepare an evidence file around the actual question. For marital classification, obtain the marriage and settlement records, acquisition evidence and material judgments. For representation, obtain the actual authority instrument and verify scope. For succession, identify death, the complete family and filiation evidence, any will and court orders, liabilities, liquidation and settlement documents. For the specific parcel, reconcile the title, encumbrances and relevant deeds with Lesson 12.

Foreign citizenship, foreign decrees and special personal laws can change the analysis. Civil Code Article 16 identifies national-law rules for the order of succession, amount of successional rights and intrinsic validity of testamentary provisions. Do not automatically apply a Philippine fraction to a foreign decedent solely because the land is in the Philippines. Family Code Article 80 also contains rules and exceptions concerning spouses' property relations. [1–2]

A legal separation is not the same as dissolution of the marriage bond. An asserted foreign divorce raises separate questions of applicable law, proof and Philippine recognition; it does not by itself resolve every property question. Where those facts are material, obtain a case-specific legal determination. The ordinary examples here deliberately avoid those complications rather than assuming them away in an actual assignment.

16 Translate the legal evidence into an appraisal decision

Use a consistent sequence: identify the property and asserted interest; establish the regime or source of rights; read the transaction and authority; investigate material restrictions; define the valuation subject and scenario; and report the evidence and remaining uncertainty. Separate the opinion on value from a legal conclusion establishing disputed ownership.

Suppose Harana proposes to buy the whole family lot, but only a one-third co-owner signs and no authority for the others is shown. The assignment cannot simply treat the executed document as evidence of transfer of the whole. The current whole-property valuation question, that seller's undivided interest and a scenario assuming a legally completed acquisition must be separately specified.

An original report statement might read: "The supplied deed is signed by one identified co-owner. Evidence authorizing transfer of the remaining interests has not been supplied. The valuation subject and any completed-acquisition scenario require clarification before the report can address the proposed transaction." This states an evidence problem without adjudicating the competing rights.

Delay, a possible partition process or consent uncertainty can affect a market participant's assessment, but a numerical adjustment still requires support. "Family dispute: deduct twenty percent" is not a valuation method. Analyze the interest actually traded, expected benefits, constraints and relevant evidence. If the legal uncertainty prevents a supportable opinion, resolve the subject or revise the agreed work before presenting a misleading amount.

17 Ten worked family-property cases

Try each question before reading the solution. The supplied regimes, heir classifications and numerical inputs are teaching assumptions. Explain the decisive legal condition as well as the arithmetic.

Case 1 One premarital lot, two regimes

Question: Lira owns an ordinary lot before marriage. Compare ACP and CPG, assuming valid applicable regimes, no descendants by a former marriage and no other exception or settlement term.

Solution: Under the stipulated ACP facts, it ordinarily enters the community. Under CPG, property brought into marriage remains exclusive.

Reasoning: The acquisition date has different effects under the two regimes. Identify the regime before classifying the parcel.

Case 2 Inherited rental property

Question: Lira inherits a building during marriage. No donor or testator directs community inclusion. Compare the inherited asset and its net rent under ACP and CPG.

Solution: Under ACP, the gratuitous asset and its fruits and income fall within the stated exclusion. Under CPG, the inherited asset is exclusive but the net fruits fall within the partnership rule.

Reasoning: Asset ownership and treatment of income need separate answers; Article 92 and Article 117 differ.

Case 3 The spouse who manages the lot

Question: A lot is stipulated to be conjugal. The current Article 124 rule applies. Nilo signs a mortgage without Lira’s written consent or applicable court authority. Is management enough?

Solution: No. On the stipulated facts, the disposition or encumbrance falls under Article 124’s void-transaction rule, including its stated continuing-offer mechanism.

Reasoning: Management power is not unrestricted power to encumber. Identify the required consent or authority and check the applicable dates.

Case 4 A power to sell presented for a mortgage

Question: Lira gives Nilo valid written special authority to sell an identified lot. Nilo presents only that authority to Meridian Bank to mortgage the lot.

Solution: The supplied authority to sell does not, by itself, authorize the mortgage. Request the authority covering the mortgage and other applicable requirements.

Reasoning: Article 1879 separates these powers. The letters SPA do not establish the scope of its contents.

Case 5 A third of a lot

Question: Nilo has an ordinary undivided one-third interest in a 900-sqm parcel. No effective physical partition exists. A stipulated whole-property teaching value is PHP 9 million. What can you calculate?

Solution: The proportional reference is PHP 9 million × 1/3 = PHP 3 million. It does not identify ownership of the west 300 sqm or automatically establish market value of the undivided interest.

Reasoning: A fraction expresses a share in the whole. Market value of the separately transferred interest requires relevant market and legal evidence.

Case 6 Liquidation before intestacy

Question: A net community fund is PHP 12 million. Equal liquidation applies, with no exclusive assets, further deductions or prior-gift issues. A spouse and two legitimate children are the only heirs; there is no will.

Solution: Existing survivor share: PHP 6 million. Decedent’s net estate: PHP 6 million. Each of the three heirs inherits PHP 2 million. Survivor’s combined economic entitlement: PHP 8 million.

Reasoning: Do not divide the whole community fund equally among three heirs. Isolate the estate after liquidation. These are stipulated allocation figures, not title issuance or fractional market values.

Case 7 Protected portions under a will

Question: Use a PHP 6 million net hereditary estate. The only compulsory heirs are a spouse and two legitimate children; no complicating facts apply. Calculate the legitimes and free portion.

Solution: Children collectively: PHP 3 million, or PHP 1.5 million each. Spouse: PHP 1.5 million. Free portion: PHP 1.5 million. Total: PHP 6 million.

Reasoning: Articles 888 and 892 govern this simplified protected-share calculation. The intestate division would instead give PHP 2 million to each of those three heirs.

Case 8 One child changes the comparison

Question: A PHP 8 million net hereditary estate has a spouse and one legitimate child, with the ordinary stated conditions. Compare the spouse's legitime with the simple intestate share.

Solution: Spouse's legitime: 1/4 × PHP 8 million = PHP 2 million. Simple intestate share: 1/2 × PHP 8 million = PHP 4 million.

Reasoning: The question asks two different distributions. Do not reuse the intestate fraction as the minimum protected portion under Article 892.

Case 9 An omitted child

Question: A document declares Lira the sole heir. Credible family records identify another child who did not participate and had no notice. Harana asks you to disregard the discrepancy because the document is notarized.

Solution: Investigate the complete heirship and settlement evidence, obtain legal clarification and reassess the claimed transferable interest. Notarization does not eliminate the omitted-heir issue.

Reasoning: Rule 74's conditions and nonparticipating-person protection matter. The appraiser should explain the evidence conflict rather than declare the child's claim extinguished.

Case 10 A lease signed by a manager

Question: A principal gives an agent only ordinary property-management authority. The agent signs a three-year lease. Is the length immaterial because no sale occurred?

Solution: No. Leasing for more than one year is one of the acts requiring special powers under Article 1878. Read the instrument and obtain authority adequate for the act.

Reasoning: An agency-scope problem is separate from lease ownership effects and the lease's form or enforceability issues.

18 Family-property worksheet

Allow about 45 minutes. State assumptions, show calculations and identify missing evidence. Use these lines for key points and a separate sheet for full responses. This is an original study aid, not a conveyance or estate-settlement form.

1 Establish the regime

Lira and Nilo married in 2010. No settlement is supplied. A title issued in 2012 describes Lira as married to Nilo. List the evidence needed before classifying the lot.

_____

_____

_____

2 Compare the rental building

An asset was inherited solely by Lira during marriage with no contrary inclusion direction. Explain how its net rental income differs under the stipulated ACP and CPG alternatives.

_____

_____

_____

3 Read the authority

An SPA authorizes sale of Lot A. The proposed transaction mortgages Lot B. Identify the two scope discrepancies and the next investigation.

_____

_____

_____

4 Define the interest

A one-third co-owner signs a document selling the whole 900-sqm lot. No authority from the others or effective partition is supplied. State the interest issue.

_____

_____

_____

Family-property worksheet continued

5 Liquidate and distribute

Assume PHP 18 million is the net community fund after all adjustments, equal division, no further deductions, no will and only a spouse and two legitimate children. Calculate existing and inherited entitlements.

_____

_____

_____

6 Calculate protected portions

Assume a PHP 9 million net hereditary estate with only a spouse and two legitimate children, and no complicating facts. Calculate the children's legitimes, spouse's legitime and free portion.

_____

_____

_____

7 Challenge the settlement file

An extrajudicial settlement is supplied, but a credible unlisted heir's record and a possible will also appear. Identify the missing conclusions before treating the whole interest as transferable.

_____

_____

_____

8 Write the appraisal response

Harana requests an immediate unrestricted whole-property opinion based only on one co-owner's deed. Write a short response identifying evidence, subject and necessary clarification.

_____

_____

_____

19 Review and examination checks

Question	Essential check
Who can sign?	Separate capacity, ownership, authority and consent
Which regime?	Marriage date, settlement, acquisition and judgments
Premarital lot?	ACP and CPG can give different classifications
Inherited rent?	Separate the asset from its fruits and income
Spouse manages?	Administration does not supply every disposition power
Family home?	Check additional beneficiaries and written consents
Contract defect?	Use the specific validity or enforceability rule
SPA supplied?	Read the act, parcel, scope and relevant date
One-third share?	Undivided ownership is not physical allotment
Owner died?	Liquidate before distributing the estate
Will or no will?	Legitime and intestate share answer different questions
Settlement complete?	Check conditions, heirship, participation and authority

A reliable answer sequence

Identify the regime and the transaction date. Name the interest and the signer’s capacity. Find the exact consent, form or authority rule. For inheritance, write the net hereditary estate before applying a fraction. Confirm whether the question asks an intestate share or a protected portion under a will.

When arithmetic is straightforward, the examination trap often concerns what the amount means. An existing spouse’s share is not an inheritance; a proportional share reference is not automatically fractional market value; and a deed price is not an appraisal conclusion. Record missed questions by regime, consent, contract, agency, co-ownership or succession. Lesson 14 develops subdivision housing and buyer protection.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These are newly authored learning questions, not actual, recalled or reproduced PRC items. Apply the supplied assumptions and read whether the question concerns ownership, authority, allocation or valuation.

1. Which fact should be established before applying a marital property default?

A. The broker's preferred sale price

B. The newest paint color

C. Applicable marriage date and valid settlement

D. The asking price of adjacent land

2. Under the stipulated ordinary ACP facts, an ordinary lot owned before marriage has no applicable exclusion. Which statement is best?

A. It ordinarily enters the community

B. It must always remain exclusive

C. It automatically belongs only to the children

D. It becomes government property

3. Under CPG, Lira inherits a rental property during marriage. Which statement matches the stated ordinary rules?

A. The asset and net rent are necessarily exclusive

B. The inheritance makes both spouses donees

C. The tenant acquires the inheritance

D. The asset is exclusive but its net fruits are partnership property

4. Spouses live apart but no relevant court decree or valid separation regime is established. What follows?

A. Their old titles are automatically canceled

B. Separation in fact does not itself dissolve their marital property regime

C. All property is automatically separate

D. All mortgages are automatically discharged

5. Current Article 124 is stipulated to apply to a conjugal lot. A spouse mortgages it without the other's written consent or court authority. Which is best?

A. Management alone makes it binding

B. The provision describes it as void, with its stated continuing-offer mechanism

C. Tax payment supplies consent

D. The bank's valuation supplies consent

6. A landowner is an adult but signs for a sibling without any established power to do so. Which distinction matters?

A. Age automatically creates agency

B. Ownership is irrelevant to conveyance

C. Family relationship makes written authority unnecessary

D. Capacity does not itself establish representative authority

7. What are the Article 1318 contractual requisites?

A. Consent, certain object and cause

B. Notarization, title photocopy and loan

C. Inspection, area and rent

D. Broker, buyer and bank

8. Which statement about notarization is most accurate?

A. It cures all defective consent

B. It confers ownership on every signer

C. It does not cure every ownership or authority defect

D. It guarantees every heir participated

9. Under Article 1874, an agent sells land with only oral authority. What rule applies on those stated facts?

A. The sale is automatically validated by rent collection

B. The agent's age replaces the writing

C. An appraisal replaces the writing

D. Written authority is required; otherwise the sale is void under that article

10. A special power authorizes sale of a particular lot. Does it alone authorize its mortgage?

A. No, Article 1879 distinguishes sale and mortgage powers

B. Yes, every sale power includes all real rights

C. Only if the loan is small

D. Only if the borrower pays the appraisal fee

11. Ordinary management authority is presented for an agent's three-year lease. What needs attention?

A. Lease length never matters

B. Only the building color matters

C. Article 1878's special-power requirement for a lease exceeding one year

D. The tenant's future inheritance

12. A buyer and seller agree on the object and price in an ordinary sale. What distinction remains important?

A. Perfection automatically equals completed registration

B. Perfection, delivery and registration effects are separate

C. Perfection automatically removes mortgages

D. The price automatically becomes market value

13. A stipulated one-third undivided interest concerns a 900-sqm lot without effective partition. What does that fraction establish?

A. A share in the whole, not automatic ownership of the west 300 sqm

B. A separate title to the west portion

C. Automatic authority to sell the others' shares

D. A survey approval

14. A whole-property teaching value is PHP 12 million. What is the proportional arithmetic reference for a one-quarter share?

A. PHP 12 million and automatically its market value

B. PHP 4 million and a separate title

C. PHP 3 million, without automatically establishing the share's market value

D. PHP 6 million regardless of the fraction

15. A PHP 12 million net community fund is equally liquidated with no further deductions. Which amount is the decedent's net estate on those assumptions?

A. PHP 12 million

B. PHP 8 million

C. PHP 4 million

D. PHP 6 million

16. A PHP 6 million net estate has no will and only a spouse and two legitimate children, without complications. What does each inherit?

A. PHP 3 million

B. PHP 2 million

C. PHP 1.5 million

D. PHP 6 million

17. A PHP 6 million net estate has only a spouse and two legitimate children. What is each child's legitime on the stated uncomplicated facts?

A. PHP 1.5 million

B. PHP 2 million

C. PHP 3 million

D. PHP 6 million

18. Which is a condition of the Rule 74 extrajudicial-settlement pathway discussed here?

A. Any will can be ignored if the heirs agree

B. The decedent left no will and no debts, with the other prescribed conditions

C. A broker certifies the price

D. Every heir must be a registered appraiser

19. A credible omitted-heir claim appears despite a notarized settlement. What is the best appraisal response?

A. Declare it extinguished immediately

B. Deduct a fixed twenty percent

C. Ignore it if the asking price is attractive

D. Investigate the conflict and seek legal clarification of the interest

20. Which statement reflects RA 6809?

A. General majority always begins at twenty-one

B. Every parent can sell a minor's land without authorization

C. General majority commences at eighteen, subject to statutory exceptions

D. Eighteen-year-olds cannot hold property

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	C
2	A	12	B
3	D	13	A
4	B	14	C
5	B	15	D
6	D	16	B
7	A	17	A
8	C	18	B
9	D	19	D
10	A	20	C

1. C The regime depends on the applicable law and valid settlements. Appearance and price do not establish it.
2. A Article 91 includes property owned at marriage subject to the exclusions and governing settlements.
3. D Article 109 distinguishes the gratuitous asset from Article 117's treatment of net fruits.
4. B Physical separation differs from judicial separation of property under the Code.
5. B Apply the exact statutory rule to the stipulated regime and transaction dates.
6. D Being capable of contracting personally does not authorize acting for another person.
7. A These are the essential requisites; special forms and other conditions require their own analysis.
8. C Read the rights, authority and applicable legal requirements rather than relying solely on a notarial act.
9. D This specific land-sale agency rule must be distinguished from other unauthorized-contract provisions.
10. A Check authority matching the actual act; a special power to sell does not include mortgage authority.
11. C The agency requirement is distinct from whether a lease transfers ownership and from its form requirements.
12. B Articles 1475 and 1477 separate agreement and ownership transfer; third-person registration questions are additional.
13. A A numerical share does not itself locate an exclusively owned physical segment.
14. C PHP 12 million × 1/4 = PHP 3 million. Valuing the separate interest needs additional evidence.
15. D Half is the survivor's existing share; the other half is the estate under the stated conditions.
16. B Article 996 gives the spouse a share equal to each legitimate child; three equal shares divide PHP 6 million.
17. A The children collectively receive a protected half, PHP 3 million, divided equally between the two.
18. B The pathway has conditions involving the estate, heirs, representatives, instrument and procedure.
19. D The supplied document does not eliminate Rule 74 participation and notice issues or establish a universal discount.
20. C Use the amended general age of majority; separate capacity from ownership, representation and special requirements.

Worksheet model responses

Response 1

Obtain marriage and settlement evidence, acquisition deed and ownership-vesting date, source of funds or gratuitous acquisition evidence, and any material judgment. ACP is the Family Code default on the stated ordinary facts absent a valid different regime, but the date of title issuance alone does not prove when ownership vested or whether an exclusion applies.

Response 2

The inherited asset is exclusive under the stated exclusions in both alternatives. Under ACP, its fruits and income are also excluded unless the specified contrary direction exists. Under CPG, its net fruits are partnership property. Classify ownership and income separately.

Response 3

The instrument concerns a sale rather than a mortgage and Lot A rather than Lot B. A special power to sell does not include mortgage authority under Article 1879. Obtain and verify authority addressing the proposed act and parcel, together with applicable ownership and consent evidence.

Response 4

The signer has an undivided one-third interest in the whole parcel, not automatic ownership of a particular 300-sqm segment. The supplied deed does not establish authority over the other shares. Separate the signer's interest from a whole-property or assumed completed-acquisition scenario.

Response 5

Survivor's existing share: PHP 9 million. Decedent's net hereditary estate: PHP 9 million. Each of the three heirs inherits PHP 3 million. Survivor's combined economic entitlement: PHP 12 million; each child: PHP 3 million. The allocations sum to PHP 18 million, but do not implement partition or supply fractional market values.

Response 6

Children's collective legitime: PHP 4.5 million, or PHP 2.25 million each. Spouse's legitime: PHP 2.25 million. Free portion: PHP 2.25 million. These protected portions differ from the simple intestate shares of PHP 3 million each and do not state an actual will's final distribution.

Response 7

Resolve whether a will exists and whether the no-will pathway is available, establish complete heirship and participation or notice, verify debts and representative authority where required, and obtain the appropriate settlement and court evidence. Neither publication nor notarization alone settles the omitted-heir or will issue.

Response 8

Example: "The supplied deed is signed by one identified co-owner, and authority covering the remaining interests has not been established. Please clarify whether the requested subject is that undivided interest, the whole property in its established current legal condition, or a separately defined completed-acquisition scenario. The remaining ownership and authority evidence is material to that decision."

22 Sources and 2027 preparation status

Bracketed source numbers in the lesson refer to the readings below. The statutory explanations address selected rules rather than every exception or later judicial application. Historical statutory texts must be read with amendments and controlling decisions; RA 6809 is specifically incorporated for general majority.

The explanations, hypothetical cases and questions are original. The family-property and inheritance calculations use stipulated facts and expressly exclude complications. They establish no actual market rates, legal entitlement in a real estate, official document or prescribed PRC question.

No confirmed 2027 PRC syllabus revision, topic weight, examination date or future legal amendment is asserted. This lesson is a preparation chapter within the proposed curriculum. Before the examination, check the then-applicable PRC syllabus and issuances and later controlling legal sources. Full estate-tax computation, special personal laws, foreign-law application and complex succession patterns require their own verified treatment.

1 Family property and consent

Executive Order No. 209, 6 July 1987, Family Code. Selected Articles 63, 74–80, 87, 91–103, 105–130, 134–159 and 256. Read with amendments. Supports regimes, exclusions, management, consent, liquidation, cohabitation and family-home distinctions.

https://lawphil.net/executive/execord/eo1987/eo_209_1987.html

2 Contracts, co-ownership and succession

RA No. 386, 18 June 1949, Civil Code. Selected Articles 15–17, 484–499, 749, 774–783, 838, 886–892, 960, 996, 1078, 1317–1358, 1380–1409, 1458, 1475–1482, 1868, 1874–1879, 1919, 1930–1931, 2085 and 2125. Read with later legislation and controlling decisions.

https://lawphil.net/statutes/repacts/ra1949/ra_386_1949.html

3 Current general majority

RA No. 6809, 13 December 1989, sections 1–3. Amends the Family Code provisions so general majority commences at eighteen, with the stated exceptions. Capacity, representative authority and marriage-related requirements remain distinct questions.

https://lawphil.net/statutes/repacts/ra1989/ra_6809_1989.html

4 Family Code effectivity

Republic v Orbecido III, G.R. No. 154380, 5 October 2005. Selected discussion identifies the Family Code effectivity date as 3 August 1988. Historical property rights require the applicable transitional analysis.

https://lawphil.net/judjuris/juri2005/oct2005/gr_154380_2005.html

5 Sale and contract to sell

Coronel v Court of Appeals, G.R. No. 103577, 7 October 1996. Selected discussion distinguishes a contract of sale from a contract to sell, including reservation of ownership and a positive suspensive condition. Apply the actual agreement and facts.

https://lawphil.net/judjuris/juri1996/oct1996/gr_103577_1996.html

6 Extrajudicial settlement

Supreme Court, G.R. No. 159578, 28 July 2008. The decision reproduces Rule 74 section 1 conditions and its protection concerning nonparticipating persons. This is a selected reading, not a complete guide to estate proceedings or limitation periods.

https://lawphil.net/judjuris/juri2008/jul2008/gr_159578_2008.html

REALEX

Lesson 14

Subdivision Housing and Buyer Protection

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

A residential lot can have an attractive price and still carry unresolved development, access or title-delivery problems. This lesson teaches you to read the project obligations before treating the lot as ordinary sale inventory. You will connect buyer protection with legal permissibility, land allocation, completion cost and the property interest being appraised.

The chapter follows the agreed curriculum after family property, contracts and succession. It explains PD 957, BP 220, the PD 1216 open-space amendment, the urban housing framework and the amended balanced housing program. It also compares developer noncompletion with buyer default under the Maceda Law and updates the older agency references to the DHSUD and HSAC framework.

All cases, calculations, worksheets, questions and the evidence map are original teaching material. Harana Meadows is fictional. Numerical inputs are supplied assumptions, not market rates or official project approvals. The final source notes distinguish checked statutory rules from current technical tables and 2027 details requiring further verification.

Your learning goals

- Distinguish the scope of ordinary subdivision regulation from economic and socialized housing standards.
- Separate ownership evidence, development approvals, registration and authority to sell.
- Identify advertising warranties, completion obligations and plan-alteration requirements.
- Calculate statutory open-space and park components without double counting.
- Apply the amended subdivision and condominium balanced housing percentages.
- Distinguish qualifying developer noncompletion from buyer default for other reasons.
- Compute earned grace periods and cash surrender values on stipulated payment histories.
- Investigate access, mortgages, title delivery and committed buyer inventory.
- Recognize the separate regulatory and adjudicatory roles under RA 11201.
- Explain how costs, timing and legal evidence enter a defensible appraisal.

Study plan: Allow four to five hours in two sessions. Read sections 1–8 and draw the evidence map in your notebook. Then read sections 9–16, work the ten cases and complete the worksheet and twenty-question test before consulting the answers.

1 Read the project before reading the price

A subdivision price buys more than a rectangle of land. The buyer expects lawful access, usable roads, drainage, services, a deliverable title and the development represented by the seller. A plan that draws a road does not prove that the road exists. A title to the mother parcel does not prove that every proposed lot may already be marketed. The appraiser therefore investigates both the interest and the development obligations attached to it.

Consider Harana Meadows, a fictional residential subdivision. The owner supplies a mother title, an approved drawing and a price list. Twenty families have paid installments, the drainage works are incomplete, and the advertised playground is now shown as six additional sale lots. Before using the price list in a valuation, ask whether the offered lots are within a licensed project, whether the plan change is authorized, what remains to be delivered, and what rights the buyers already hold. Those questions connect Lessons 9, 12 and 13 with the housing laws taught here.

Think in three layers. The first is the property layer: ownership, lot identity, boundaries, access and encumbrances. The second is the project layer: housing category, approved design, registration, authority to sell, completion and open-space commitments. The third is the transaction layer: contract terms, payments, default, refunds, assignment and title delivery. A satisfactory answer in one layer does not settle the others.

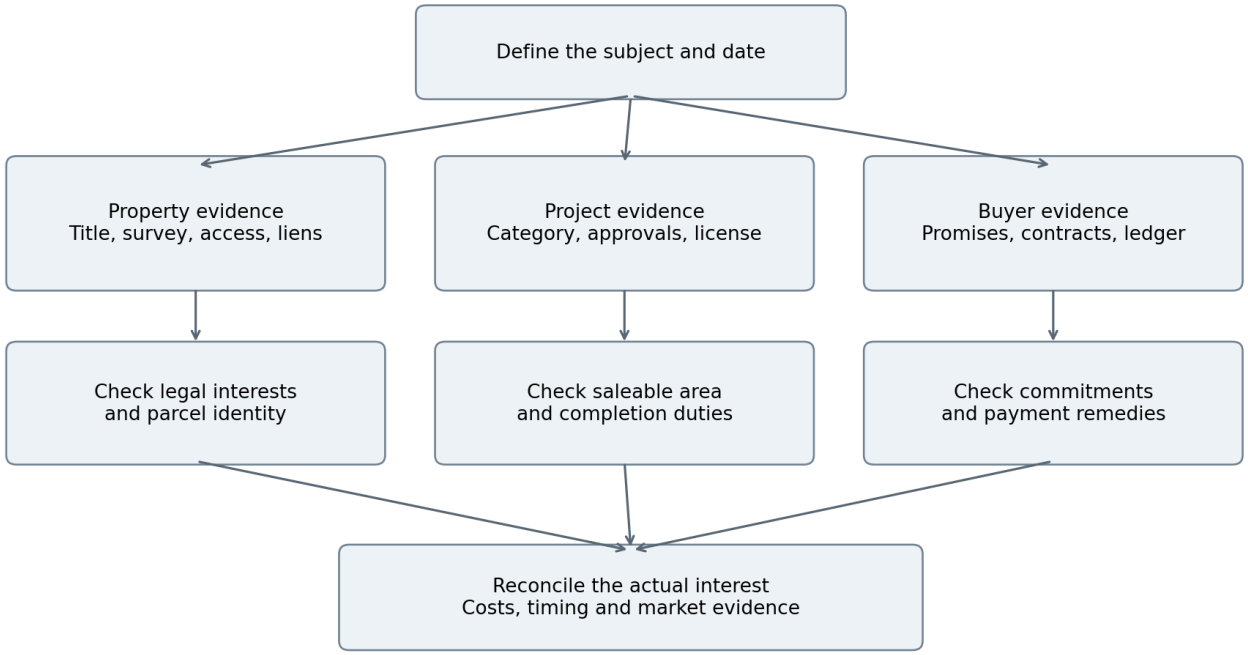


Figure 14.1 Original appraisal evidence map. This organizes parallel investigations; it is not a prescribed permit-processing sequence.

The useful appraisal question is what a knowledgeable market participant would understand and price. Legal noncompliance can affect the available use, cost, timing and ability to transact. However, discovering a compliance problem does not by itself prove a fixed discount. Establish the problem, determine the credible response and investigate market evidence before translating it into an amount.

2 The housing laws answer different questions

PD 957 regulates subdivision and condominium sales and protects buyers against specified failures in development and delivery. BP 220 authorizes different standards and technical requirements for economic and socialized housing. PD 1216 amends the subdivision open-space provisions. RA 7279 provides the wider urban development and housing framework, while RA 10884 amends its balanced housing program. RA 6552 addresses rights under covered installment transactions when the buyer defaults. RA 11201 supplies the DHSUD and HSAC institutional framework. [1–7]

Do not select a law merely because a scenario mentions housing. Read the act that occurred. An owner offers new subdivision lots without a license: investigate PD 957. A design question asks about an economic housing standard: identify BP 220 and the applicable implementing issuance. A covered buyer loses employment and misses installments despite proper developer performance: analyze RA 6552. A developer misses the approved development deadline: investigate PD 957 sections 20 and 23.

The statutes also operate together. A project can need appropriately categorized design standards and still have buyer-protection obligations. Balanced housing compliance does not substitute for a license to sell. A seller's personal professional license does not supply project authorization. Neither an occupancy permit nor a transfer certificate of title proves that the developer has satisfied every obligation to buyers.

For examination purposes, learn the stable statutory distinctions first. Then attach each changing technical number to its issuance and effective date. A remembered road width or price ceiling without its applicable project category and source can be more dangerous than an unanswered question. This lesson teaches statutory calculations and approval reasoning; it does not certify a complete current design-standard schedule.

Legal framework	Primary study question
PD 957	Covered project sales and buyer protection
PD 1216	Amended subdivision open-space reservations
BP 220	Differentiated economic and socialized housing standards
RA 7279 with RA 10884	Urban housing and amended balanced housing
RA 6552	Covered installment buyer default rights
RA 11201	DHSUD regulation and HSAC adjudication

3 Scope and the meaning of sale under PD 957

The statutory definition of sale is broad. It includes not only a completed deed but contracts to sell, offers, solicitations and other attempts to dispose for valuable consideration. Advertising an unlicensed project and taking paid reservations cannot safely be treated as irrelevant simply because the final deed has not yet been signed. Investigate the substance of the activity, not its label. [1, sec. 2]

A subdivision project is defined around registered land partitioned primarily for residential purposes and offered to the public. The definition includes the commercial, industrial, recreational, open-space and community areas within that project. Consequently, a commercial lot situated within a qualifying residential

subdivision should not be dismissed from the PD 957 inquiry just because the lot itself is commercial. This differs from reading the particular exclusions under RA 6552.

Not every parcel division is automatically a public subdivision development. A family partition, a purchaser's resale and a developer's initial public offering raise different questions. Section 7 specifies transactions exempt from the license-to-sell and performance-bond requirements, including sales resulting from partition among co-owners or co-heirs, resales by original purchasers and subsequent sellers, and specified mortgagee dispositions to liquidate bona fide debt. The scope of the exemption must be read carefully: it does not establish universal exemption from every law, permit or title requirement.

Suppose three siblings partition inherited land, and one sells the resulting lot. The stated section 7 category may be relevant. Now suppose a company buys a tract, constructs common roads, advertises fifty residential lots and calls each contract a private family arrangement. The description does not establish the exemption. Investigate ownership, the actual development scheme, the public offering and the claimed legal basis.

4 Ownership approvals registration and the license to sell

Project registration and a license to sell are separate requirements in PD 957. Registration identifies the regulated project through specified disclosures and documentation. A certificate of registration alone does not authorize the developer to sell. Section 5 requires the license before the covered selling activity. The license should be checked against the actual project name, owner or developer, location, covered phase or inventory, conditions and relevant status. [1, secs. 4–10]

An approved subdivision layout addresses design approval within its scope. A development permit authorizes specified development subject to its terms. A building permit and an occupancy permit answer construction and use questions. An approved survey and title registration address parcel identity and the registry. These are related records, but they are not interchangeable. Verify documents with the issuing authority when material; a cropped image of a certificate can conceal limitations.

The original decree uses historical agency and code references. Read those as part of its legal history rather than as a current filing directory. RA 11201 distinguishes the current national housing regulator from the adjudication institution, and local authorities and other agencies retain their respective functions. A practical approval map records the question, responsible authority, document, conditions, date and evidence of compliance rather than assuming a universal sequence. [7]

Section 6 establishes the performance bond as a guarantee for development obligations. Its presence supports a regulatory protection mechanism, not a promise that every buyer will immediately recover every loss. Read the bond's approved scope, validity and enforcement conditions. An appraiser should not treat its face amount as an additional property asset available without restriction.

Project phases require particular care. A license shown for one portion cannot automatically support sales in every later expansion. The original section 32 imposes requirements on each subdivision phase and states a ten-hectare minimum for that statutory arrangement. Actual phasing and current administrative treatment must be checked against the governing approvals; do not use a marketing label alone to infer lawful phasing.

5 Advertising promises and completion duties

PD 957 section 19 requires advertisements to reflect real facts and avoid misleading presentations. Development features promised through sales materials can become enforceable sales warranties. A brochure is therefore potentially evidence of an obligation, not merely decorative literature. Preserve the version, date,

source and connection to the sale. Compare promises with approved plans, contracts and what was actually delivered. [1, secs. 19–20]

Section 20 provides for completion within one year from issuance of the license or another period fixed by the Authority. The phrase allowing a different fixed period matters. A reviewer should not declare every project overdue by counting exactly twelve months without inspecting the approved completion period and any valid extension. Conversely, an internal revised construction schedule is not proof that the regulator extended the obligation.

Take a buyer promised completed roads, water service and a recreational area. The developer shows completed houses and argues that its obligations are finished. Examine the scope of the represented development: the completion percentage of the buildings alone does not settle the service and infrastructure commitments. An appraiser inspecting only a sample house may miss obligations that affect the entire project.

A completion estimate should identify remaining quantities and defects. Include relevant off-site connection works, necessary professional inputs, testing and commissioning, approvals and other supported costs. Distinguish physical work from the time needed to legalize or release inventory. A cost estimate can assist the analysis, but expenditure does not automatically cure every legal issue or equal the resulting change in value.

6 Plan alterations and protected common areas

Under section 22, changing specified roads, open spaces, public facilities or other represented subdivision development requires permission of the Authority and written conformity or consent of the duly organized homeowners association; in its absence, the statutory alternative is the majority of lot buyers. The developer's private board approval does not supply both required elements. [1, sec. 22]

Do not read this rule as giving permission to convert every protected park into sale lots whenever buyers agree. PD 1216 imposes particular restrictions on park and recreational areas, and other legal constraints may operate. Authority and consent must be considered together with the nature and legal status of the land. An alteration permission question and a nonalienability question are different inquiries.

For Harana Meadows, the price list includes six lots drawn over the advertised playground. Until the lawful saleable status is established, those six parcels should not simply be counted as ordinary sale inventory. Record them separately, investigate the original and amended approvals and identify the uncertainty. If the assignment asks for a scenario assuming lawful conversion, clearly distinguish that assumption from the actual condition at the valuation date.

Common-area disputes can affect buyer confidence, marketing time, operating arrangements and exposure to claims. Do not count the same impact repeatedly. For example, a supported lower sales forecast reflecting the lost amenity and a separate arbitrary amenity discount can duplicate the effect. Explain where the evidence enters the model.

7 Open space under PD 1216

PD 1216 defines open space broadly to include roads, facilities and amenities as well as parks and playgrounds. Its amended section 31 requires a thirty-percent gross-area open-space reservation for subdivision projects of one hectare or more. The park, playground and recreational allocations are expressed as percentages of gross area: nine percent for the stated high-density category, seven percent for the stated medium-density category, and three and one-half percent for the stated low-density category. [2]

The statutory density descriptions are 66–100 family lots per gross hectare for high density, 21–65 for medium density, and twenty or fewer for low density. These are the PD 1216 categories for the exercise. They should not be silently substituted for a separate BP 220 density table or treated as a complete description of every modern housing classification.

PD 1216 category	Family lots per gross hectare	Park component of gross area
Low density	20 or fewer	3.5%
Medium density	21–65	7%
High density	66–100	9%

Most importantly, the park component is within the broader open-space reservation. It is not normally added again to the thirty percent in the stated statutory calculation. A 20,000-square-meter low-density example gives 6,000 square meters of total reserved open space and 700 square meters for the park component. The difference of 5,300 square meters is the balance of that reservation; it is not automatically a fully compliant road design.

Nor is the remaining seventy percent guaranteed saleable inventory. Separate constraints can remove additional land, and an approved design may allocate more open space. Verify easements, drainage reservations, community facilities, geometry and other controlling restrictions. Gross area, net developable area and approved saleable area should each have a defined measurement basis.

The decree addresses certification of completion and donation of roads, alleys, sidewalks and playgrounds to the city or municipality, with a specified option for parks and playgrounds to the homeowners association subject to city or municipality consent. It also protects park and recreational land from ordinary alienation and building development. Read amended section 31 instead of relying on the older optional-donation language printed in an unconsolidated PD 957 text.

8 Economic and socialized housing under BP 220

BP 220 responds to affordability by authorizing different technical standards for economic and socialized housing, subject to safety, environmental, hygiene and community considerations. It is a law authorizing appropriately differentiated standards, not permission to disregard access, drainage, structural safety or buyer obligations. Its affordability definition refers to thirty percent of gross family income as determined from time to time by the named authority. [3, secs. 1–5]

Separate three questions. First, what legal and administrative category applies to the project? Second, which implementing standards and price ceilings were effective for the relevant approval or classification? Third, can the actual household afford the financing package? A buyer with a small salary does not automatically turn an ordinary subdivision into a BP 220 project. Likewise, a low advertised price does not prove the necessary approval classification.

If household gross income is PHP 30,000 per month, thirty percent is PHP 9,000. This illustrates the statutory affordability ratio. It does not establish approval for a particular loan or prove that a PHP 9,000 installment is sustainable after utilities, transport, maintenance and other debts. Lending criteria and the complete household budget need their own evidence.

The online BP 220 page includes annexed standards. A web attachment must still be dated and checked against subsequent revisions before its lot areas, widths, setbacks or density tables are used as current

requirements. This lesson deliberately avoids presenting an undated annex as a complete current 2026 design table. For an examination question supplying a particular standard, apply that supplied standard; for an actual project, retrieve the controlling issuance.

Economic and socialized are also not interchangeable words. RA 10884 exempts proposed socialized subdivision and socialized condominium projects from the particular balanced housing requirement. It does not state that every economic project is exempt. Project classification affects the correct statutory analysis and should be documented before a development model assigns a compliance cost of zero.

9 Urban housing and balanced housing obligations

RA 7279 treats housing within a wider program involving land, basic services, livelihoods and beneficiary participation. A legally designated socialized development must be understood in that setting. A dwelling that is cheap but remote from employment and transport can carry substantial costs for its occupants. Sections 21–23 address basic services, livelihood and participation, providing useful context for appraisal of location and demand. [4]

RA 10884 amended section 18 of RA 7279. For covered proposed subdivision projects, the statutory requirement is socialized housing equivalent to at least fifteen percent of total subdivision area or total subdivision project cost, at the developer's option. The condominium requirement is at least five percent of condominium area or project cost. Proposed socialized subdivision and condominium projects are exempt from this requirement. [5]

An older reviewer using twenty percent for subdivision projects without identifying the historical version is outdated for this amended statutory rule. Also avoid the unsupported shortcut of multiplying fifteen percent by the number of market-sale lots. The statute specifies area or project cost; the selected basis and its documented application matter.

Recognized statutory compliance arrangements include a new socialized settlement, qualifying joint ventures and participation in a new community mortgage program project. Do not invent a universal right to replace development with an arbitrary cash payment. Actual acceptable modes, documentary requirements, cost recognition and deadlines need the applicable administrative rules and approvals.

The open-space requirement and balanced housing requirement serve different purposes and have different bases. Thirty percent is not a balanced housing rate. Fifteen percent is not a park requirement. Meeting one obligation does not automatically satisfy the other, and an area cannot be double-counted across obligations without a supported legal and approved basis.

Statutory reference	Rate	Specified basis
PD 1216 open space	30%	Gross area for stated projects of at least 1 ha
RA 10884 subdivision	15%	Total area or total project cost at developer option
RA 10884 condominium	5%	Area or project cost at developer option

10 Calculate the correct housing obligation

For an original teaching case, suppose a covered subdivision has a documented total area of 40,000 square meters. Its area-based statutory reference is 40,000 × 15% = 6,000 square meters. If the stipulated eligible

project-cost basis is PHP 120 million and the accepted cost route is selected, the cost-based reference is PHP 18 million. These are alternative teaching bases; do not simply add them or compare area with pesos as if the units were interchangeable.

For a covered condominium with a stipulated accepted project-cost basis of PHP 200 million, five percent gives PHP 10 million. This is not five percent of apartment sales revenue unless the operative cost definition actually establishes that basis. The developer's compliance expenditure, selling revenue and appraised property value are separate quantities.

In a development model, first record the approved compliance route. Then identify the related cost, delivery date, cash outflow and any supported recovery or revenue. An independently located compliance project may require land and infrastructure spending different from a simple percentage budget provision. A percentage calculation helps establish a reference; it does not replace costing and regulatory verification.

An apparently higher-density design can increase sale inventory while increasing infrastructure, approval, financing and compliance needs. Evaluate the complete economics. A larger number of lots is not proof of a more profitable or legally permissible project. Use sensitivity analysis for uncertain costs, selling rates, absorption and completion timing rather than hiding them in one optimistic subtotal.

11 Developer noncompletion and the buyer's response

PD 957 section 23 protects installments from forfeiture when the buyer, after due notice, stops payment because of the developer's failure to develop according to approved plans and the applicable time limit. The buyer may elect reimbursement of the total paid, including amortization interest but excluding delinquency interest, with interest at the legal rate. Establish the qualifying failure and due notice rather than treating every disagreement as sufficient. [1, secs. 20, 23]

This is materially different from a buyer defaulting for an unrelated reason while the developer performs its obligations. Section 24 directs that other-reason installment default to RA 6552. Therefore, the same number of paid installments can lead to a different inquiry depending on why payment stopped. A cash surrender value calculation under RA 6552 should not displace the statutory total-payment remedy where section 23 properly applies.

Suppose PHP 900,000 was paid toward price, PHP 120,000 in amortization interest and PHP 15,000 in delinquency interest. The stipulated section 23 reimbursement base is PHP 1,020,000, excluding the delinquency component. Additional legal interest requires the applicable legal analysis of the obligation, dates and judgment circumstances; this lesson does not assume a universal start date or capitalize an arbitrary rate.

Where the claim arises under section 23 and a financing institution funded the purchase price, RA 11201 section 16 identifies the financing institution as a necessary party. Do not assume that stopping payments owed under an independent bank loan follows automatically from a dispute with the developer. Identify the loan and contractual arrangements and obtain the proper legal determination. [7]

Issue	Developer noncompletion	Buyer default for other reasons
Starting law	PD 957 sections 20 and 23	PD 957 section 24 and covered RA 6552 rules
Decisive evidence	Approved plans, period, failure and due notice	Coverage, installments, default and notices
Relevant refund	Section 23 total-payment remedy when qualified	Cash surrender value under section 3 when qualified

12 Buyer default under the Maceda Law

RA 6552 covers specified installment real estate transactions, including residential condominium apartments, and expressly excludes industrial lots, commercial buildings and the stated tenant sales under agrarian legislation. Read those exclusions as written instead of replacing them with a loose rule that all nonresidential interests are always excluded. Establish whether the transaction and payment arrangement actually fall within the law. [6, sec. 3]

For a covered buyer who has paid at least two years of installments, the earned grace period is one month for each year of installment payments. The right is exercisable once every five years during the contract and its extensions. The buyer can pay the unpaid installments during that grace period without additional interest under the statutory rule.

If cancellation occurs in that category, the cash surrender value starts at fifty percent of total payments. After five years of installments, an additional five percentage points accrues for each additional year, capped at ninety percent. On the stipulated whole-year examples: five years gives fifty percent, six gives fifty-five percent, eight gives sixty-five percent and thirteen gives ninety percent. Do not read an additional five percent as five percent of the fifty-percent refund.

Actual cancellation requires the statutory period after receipt of the cancellation notice or rescission demand by notarial act and full payment of the cash surrender value. A private letter announcing automatic cancellation and no refund does not supply the statutory requirements. Keep the date of receipt separate from the date the seller prepared the document.

Stipulated installment years	Refund rate	Refund on PHP 1m base
5	50%	PHP 500,000
6	55%	PHP 550,000
8	65%	PHP 650,000
13	90% cap	PHP 900,000

For fewer than two years of paid installments, section 4 provides a grace period of at least sixty days from the installment due date. If the buyer still fails to pay after that period, cancellation can follow thirty days after receipt of the specified notarial notice or demand. This category does not create the section 3 fifty-percent cash surrender right merely because some payments were made.

Down payments, deposits or options are expressly relevant under the statute to computing the installment payments made. Actual payment-history classification may require detailed account analysis; avoid assuming that the interval between contract signing and today proves the earned years. During the grace period and before actual cancellation, sections 5–6 address assignment or sale of rights, reinstatement by updating the account, and advance payment. The assignment instrument must satisfy the stated notarial requirement.

13 Title mortgages taxes and project charges

PD 957 section 17 requires registration by the seller of contracts to sell, deeds and similar conveyance instruments. Section 25 addresses title delivery upon full payment and the limits on title-issuance fees. An

installment buyer's rights and a fully paid buyer awaiting title should be separated from the developer's uncommitted inventory. A title search alone may not disclose the complete buyer accounts or promises. [1]

Section 18 requires prior written authority approval for project mortgages, directed use of proceeds for development and buyer notification before loan release. It contemplates a mechanism for payments to the mortgagee corresponding to the particular lot or unit. Read the loan allocation and release arrangements rather than assuming a mortgage on the mother title is inconsequential. Existing buyer interests and the mortgage must be considered together.

Property value and the owner's equity remain separate. A PHP 20 million property opinion and a PHP 7 million outstanding loan do not establish a PHP 13 million property value. The latter is an elementary debt subtraction before other liabilities and costs. If the subject is a development company, buyer obligations, receivables and financing must be reconciled within that separate assignment.

Section 26 assigns real estate tax and assessment to the owner or developer without recourse while title has not passed, subject to the exception when the buyer has taken possession and occupied the lot or unit. Under the stated exception, liability to the developer starts in the year following possession and occupancy. Do not replace this with a rule that every reservation transfers taxes immediately.

Section 27 addresses alleged community-benefit fees and specified charges for common services. In practice, read the current HOA legal framework and actual authority for the particular charge. An unexplained developer fee should not be assumed lawful, but this selected provision is not a complete substitute for the later HOA legislation. Similarly, statutory title-delivery obligations do not prove that every separately payable transaction tax has disappeared.

14 Access homeowners and the current institutions

Section 29 requires a developer of a subdivision without access to an existing public road to secure and develop the necessary right of way. Section 28 addresses access to public offices or establishments within or reachable only through the subdivision. A visible dirt track is not sufficient evidence of a permanent legal access right. Obtain the legal and technical records and inspect whether access is usable for the relevant market. [1]

Section 30 requires initiation of a homeowners association to promote mutual interests and community development. HOA participation is important when assessing common-service arrangements and proposed plan changes, but the association does not become a universal substitute for public approvals. A signed petition, meeting resolution or developer letter has to be read within the precise statutory question.

RA 11201 creates DHSUD through institutional consolidation and places adjudicatory functions in HSAC. For the statutory claims taught here, the regional adjudicators exercise original jurisdiction within section 16, while the Commission has the section 15 appellate role. An older answer naming HLURB should be read with the date of the question and the institutional change. Avoid saying DHSUD itself adjudicates every buyer refund claim. [7]

A buyer-protection appraisal can provide evidence of property condition, development cost or a value opinion within the assignment. The appraiser does not become the tribunal deciding liability, validity of cancellation or damages. Distinguish observed facts, supplied legal instructions and valuation conclusions. State what was investigated and identify material legal questions requiring resolution.

15 Translate project evidence into an appraisal

Begin with the valuation subject. Is it one delivered residential lot, the actual unfinished subdivision interest, the remaining developer inventory or the corporate equity? A sum of individual retail prices is not automatically the market value of an entire unfinished project. Costs, marketing time, collections, buyer commitments, uncertainty and the selected valuation method can change the interpretation.

Create an inventory that separates uncontracted approved lots, contracted unpaid lots, fully paid lots awaiting title, disputed inventory and protected nonsaleable land. Match each lot identifier with the plan, contract, title and payment ledger. A model that sells a fully paid buyer's lot again counts a benefit that the developer may no longer have. A model that adds full receivables to full retail prices can duplicate the same expected collections.

Identify the actual completion scope and timing. An inspection finding of unfinished drainage is a fact. An estimate of PHP 2 million to finish it is a separate technical opinion. A three-month delay is another assumption. A market participant's response to the uncertainty requires valuation evidence. Keep the chain visible so the reader can understand how a fact became an input.

For a simple scenario, delayed net receipts of PHP 12 million discounted for one year at a supplied twelve-percent annual rate give PHP 10.714 million. The PHP 1.286 million difference illustrates timing alone. It does not also include a separately unspecified risk adjustment, nor prove that every delayed project deserves twelve percent. If the rate already captures a risk, avoid adding the same risk again elsewhere.

A remaining-development cost deduction is also only part of the analysis. Suppose expected undiscounted lot collections are PHP 30 million and costs to complete are PHP 7 million. The PHP 23 million difference is a subtotal before marketing, financing, compliance, timing and other relevant elements. Label it honestly. To call it market value requires a coherent appraisal method and evidence for the entire subject interest.

16 A study method for housing scenarios

Start with the cause and the document. Identify the project category, transaction, relevant date and specific problem. Then find the statutory provision and the evidence needed to apply it. Only after that should you compute a percentage, grace period or cash amount. In your answer, state the meaning of the number and the condition on which it depends.

Watch five recurring traps: registration presented as a license, advertisements treated as irrelevant, park allocation added twice, balanced housing calculated from the wrong base, and developer noncompletion treated as ordinary buyer default. A sixth trap is using an old agency name or old statutory percentage as though nothing has changed. Date the legal rule in your revision notes.

For calculations, write gross area in square meters and distinguish pesos from area. Use one hectare equals 10,000 square meters. Multiply the specified percentage by its stated denominator. For Maceda exercises, write the number of stipulated installment years before the refund rate, then apply the rate to the stipulated payment base. Show enough work to reveal the reasoning.

Your chapter summary should contain three small maps: the approval evidence map, the payment-remedy comparison and the area-allocation calculation. Revisit Lessons 3, 6, 9 and 12 when you struggle to connect legal permissibility, timing, assignment definition and title evidence. Lesson 15 will address condominium interests and REIT structures in greater detail.

17 Ten worked housing cases

Attempt the question first. Each answer identifies the controlling distinction, the calculation where relevant and the limit of the result. The cases use supplied facts and do not determine entitlements in an actual dispute.

Case 1 Registered but not licensed

Question: Harana has a registration certificate and an approved plan. It starts offering newly developed lots to the public. No exemption or license to sell is established. Is the certificate sufficient?

Solution: No. PD 957 distinguishes registration from authority to sell. Obtain and verify the license covering the offered inventory before treating the project as authorized for the covered activity. [1, secs. 4–7]

Reasoning: A mother title proves neither project authorization nor completion. The broad sale definition prevents assuming that only execution of a final deed matters.

Case 2 The park is inside open space

Question: A stipulated PD 1216 low-density subdivision has 20,000 sq m gross area. Apply the 30% total open-space reservation and 3.5% park component. What is the calculation?

Solution: Total open space = 20,000 × 0.30 = 6,000 sq m. Parks and recreation = 20,000 × 0.035 = 700 sq m. Balance within the reservation = 5,300 sq m. Do not add 700 again to 6,000. [2]

Reasoning: The park rate uses gross area, not the 6,000 sq m open-space subtotal. The 14,000 sq m outside that reservation is not guaranteed saleable area.

Case 3 Classify density before calculating

Question: A statutory teaching project has four gross hectares and 160 family lots. Calculate density and the PD 1216 park component.

Solution: Density = 160 ÷ 4 = 40 lots per gross hectare, within the stated medium-density band. Gross area = 40,000 sq m. Park component = 40,000 × 7% = 2,800 sq m; total open-space reference = 12,000 sq m. [2]

Reasoning: Use gross hectares. Dividing by net residential lot area would answer a different density question. This does not substitute for a complete approved design.

Case 4 Balanced housing has alternative bases

Question: A covered proposed subdivision has 40,000 sq m total area and a stipulated accepted PHP 120m cost basis. Compute the amended statutory references.

Solution: Area route: 40,000 × 15% = 6,000 sq m. Cost route: PHP 120m × 15% = PHP 18m. The selected approved route must be documented; the amounts are not added. [5]

Reasoning: The historical 20% rate is not the amended rate. Neither fifteen percent of lot count nor fifteen percent of selling revenue is the stated calculation.

Case 5 Condominium obligation and classification

Question: A covered nonsocialized condominium has a stipulated accepted cost basis of PHP 200m. A second proposed project is confirmed as socialized. What does RA 10884 establish?

Solution: The first cost-route reference is PHP 200m × 5% = PHP 10m. A proposed socialized condominium project is exempt from this particular balanced housing requirement. [5]

Reasoning: The exemption does not cancel other approvals or buyer protections. Economic classification alone does not establish the socialized exemption.

Case 6 Why the buyer stopped paying

Question: The approved completion period expired. The developer failed to develop according to approved plans. After due notice, the buyer elects a qualifying section 23 reimbursement. Price payments were PHP 900,000, amortization interest PHP 120,000 and delinquency interest PHP 15,000.

Solution: Reimbursement base = PHP 900,000 + PHP 120,000 = PHP 1,020,000. Exclude PHP 15,000 delinquency interest. Applicable legal interest must be determined separately. [1, sec. 23]

Reasoning: This is the stated developer-noncompletion remedy. It should not automatically be reduced to the Maceda fifty-percent figure.

Case 7 Eight years of covered installments

Question: A performing developer faces a buyer default for an unrelated reason. The covered buyer is stipulated to have paid eight installment years and PHP 1,600,000 total eligible payments. Compute earned grace and cash surrender value.

Solution: Earned grace = 8 months, subject to the once-in-five-years rule. Refund rate = 50% + 3 × 5 percentage points = 65%. Cash surrender value = PHP 1,040,000. Cancellation also requires the statutory notarial notice period and full refund. [6]

Reasoning: The first additional five percentage points is earned after the fifth year. A rate calculation alone does not establish that cancellation has already taken effect.

Case 8 Fewer than two years

Question: A covered buyer has paid eighteen months and defaults for reasons unrelated to development failure. The seller sends an ordinary email declaring cancellation after fifteen days.

Solution: Section 4 requires at least sixty days of grace from the installment due date. After failure to pay within grace, the statutory cancellation process includes thirty days after receipt of notice or demand by notarial act. The email and fifteen-day period do not establish compliance. [6]

Reasoning: The section 3 cash surrender formula is not automatically available for this fewer-than-two-year category. Other possible rights require separate analysis.

Case 9 An unlawful inventory assumption

Question: The spreadsheet lists 40 ordinary uncommitted lots of 100 sq m each plus six 100 sq m lots drawn over protected parkland. The supplied retail rate is PHP 5,000 per sq m. What can be computed?

Solution: Established ordinary-lot retail subtotal = 40 × 100 × PHP 5,000 = PHP 20m. The six park lots would add PHP 3m arithmetically, but lawful saleable status is unestablished and they cannot simply be included as ordinary inventory.

Reasoning: The PHP 20m is still a retail subtotal, not an unfinished-project value. Investigate protected land, existing contracts, timing, costs and market evidence. [1, sec. 22; 2]

Case 10 Delay changes the cash flow

Question: A hypothetical net receipt of PHP 12m moves from today to one year later. The supplied annual discount rate is 12%. Compute the timing effect only.

Solution: Present value = PHP 12m ÷ 1.12 = PHP 10,714,285.71. Difference from immediate receipt = PHP 1,285,714.29. This isolates timing on the stated assumptions.

Reasoning: It does not determine legal damages or a universal discount. A full appraisal must justify timing, receipt amounts and the rate and avoid duplicate risk allowances.

18 Housing and buyer-protection worksheet

Suggested time: 45 minutes. Explain your reasoning and show calculations. Write key points below and use a separate sheet for full responses. This is a study worksheet, not an official permit or complaint form.

1 Approve the evidence map

Harana supplies a title, development permit and registration certificate, but no verified license to sell. Name what each record establishes and the missing evidence needed before assuming covered public sales are authorized.

_____

_____

_____

2 Calculate the land allocation

Use a three-hectare PD 1216 teaching project with 120 family lots. Find gross square meters, statutory density, total reserved open space and park component. Explain why the balance is not automatically guaranteed saleable land.

_____

_____

_____

3 Calculate balanced housing

For a covered subdivision with 30,000 sq m total area and a stipulated accepted PHP 90m cost basis, calculate the alternative references under RA 10884. State the evidence needed for a claimed socialized exemption.

_____

_____

_____

4 Classify the payment remedy

Buyer A stops after qualifying development failure and due notice. Buyer B stops because of unemployment while the developer performs. Explain the different starting provisions and information needed for each.

_____

_____

_____

Housing worksheet continued

5 Compute surrender value

Buyer B is stipulated to have paid seven years of covered installments and PHP 1.2m eligible total payments. Compute grace, refund rate and cash surrender value. Describe the additional cancellation conditions.

_____

_____

_____

6 Read the completion evidence

The approved period ends on 30 September 2026. An internal contractor schedule now finishes in March 2027. Explain why that schedule alone does not establish a regulatory extension. List three completion records to obtain.

_____

_____

_____

7 Reconcile inventory

The file lists 25 uncommitted saleable lots, 10 lots already fully paid by buyers and a protected park. Explain why multiplying all land by the same retail rate is wrong. State what a project-interest valuation must additionally investigate.

_____

_____

_____

8 Separate institutions and uncertainty

Distinguish a regulatory authorization inquiry from a statutory buyer refund claim. Identify DHSUD and the relevant HSAC adjudication structure. State which 2027 examination or technical-design details this lesson does not confirm.

_____

_____

_____

19 Review and examination checks

Question to ask	Essential distinction
May the project be offered?	Registration differs from the license to sell
What was promised?	Advertisements can evidence sales warranties
Is completion late?	Read the authority-fixed period and valid extensions
Can the plan change?	Check permission, consent and protected-land status
What is the park base?	Gross area; park component is within open space
Which housing standard?	Verify project category and operative issuance
Which balanced housing rate?	15% subdivision and 5% condominium under RA 10884
Why did installments stop?	Developer noncompletion differs from buyer default
How many installment years?	Read the ledger and supplied qualifying history
Has cancellation occurred?	Receipt, notarial notice, periods and refund matter
Whose claim and forum?	DHSUD regulation differs from HSAC adjudication
What does the amount mean?	Retail subtotal differs from project-interest value

A reliable situational answer

Identify the category, date, transaction and cause of the problem. Select the provision and name the condition that triggers it. State the evidence required. For an arithmetic question, write the base, rate and units before the result. Then explain what the result represents and what it does not decide.

Keep an error log using six headings: approvals, promises and completion, land allocation, balanced housing, payment remedies, and appraisal interpretation. Rework a missed question with a changed fact. For example, change developer noncompletion to buyer unemployment and identify why the payment-remedy answer changes.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These are newly authored learning exercises, not actual, recalled or reproduced PRC examination items. Apply the supplied category, date, payment history and numerical assumptions.

1. A project has a registration certificate but no license to sell. No exemption applies. Which statement is best?

A. Registration alone authorizes public sales

B. An approved survey replaces the license

C. The license must separately be established

D. Any licensed broker may authorize the project

2. A developer solicits paid reservations for new subdivision lots before final deeds. What is the strongest starting point?

A. Investigate the broad statutory definition of sale

B. Ignore all activity until deeds are signed

C. Treat deposits as a universal exemption

D. Ask only whether the buyer can afford the price

3. A commercial lot sits inside a qualifying primarily residential subdivision project. What follows?

A. Every housing statute is inapplicable

B. Only the Civil Code can apply

C. The lot is necessarily socialized

D. PD 957 scope must still be investigated

4. Which transaction is expressly listed in PD 957 section 7 as exempt from the license and bond requirements?

A. Every developer sale below a low price

B. A resale by the original lot purchaser

C. Any public sale called a reservation

D. Every condominium prelaunch

5. Why retain the original developer brochure?

A. It establishes market value conclusively

B. Its stated amenities can evidence enforceable warranties

C. It replaces title registration

D. Only the buyer’s signature makes it relevant

6. The statute mentions a one-year completion period. What should an examinee also check?

A. Whether any buyer paid cash

B. Whether the contractor prefers a later finish

C. Whether the owner holds a broker license

D. Whether another period was fixed by the Authority

7. A developer changes a represented subdivision road. Which evidence is most relevant under section 22?

A. Authority permission and the specified written buyer or HOA consent

B. A private board minute only

C. A new price list only

D. A contractor's verbal assurance only

8. A stipulated low-density PD 1216 project has 10,000 sq m gross area. What is its park component?

A. 3,000 sq m additional to open space

B. 105 sq m

C. 350 sq m within reserved open space

D. 7,000 sq m

9. A project has five gross hectares and 200 family lots. What is the stated statutory density?

A. 40 family lots per gross hectare

B. 200 family lots per gross hectare

C. 25 family lots per gross hectare

D. 5 family lots per gross hectare

10. What is the sound BP 220 study approach?

A. Assume all cheap projects are classified under it

B. Apply any undated technical table as current

C. Treat safety obligations as optional

D. Verify classification and the applicable standards issuance

11. A covered subdivision selects the accepted area route with 60,000 sq m total area. What is the RA 10884 reference?

A. 12,000 sq m

B. 3,000 sq m

C. 9,000 sq m

D. 18,000 sq m

12. A covered condominium selects the accepted cost route on a stipulated PHP 80m base. What is the reference?

A. PHP 12m

B. PHP 4m

C. PHP 16m

D. PHP 24m

13. Which classification is expressly exempted from this balanced housing requirement?

A. Every economic project

B. Every privately financed project

C. Every small project

D. Proposed socialized subdivisions and socialized condominiums

14. A qualifying buyer gives due notice and elects reimbursement after developer noncompletion. What provision is the primary starting point?

A. PD 957 section 23

B. RA 6552 surrender value alone

C. The seller’s automatic-forfeiture clause

D. The broker’s commission agreement

15. Under the stipulated section 23 remedy, price payments are PHP 500,000, amortization interest PHP 60,000 and delinquency interest PHP 8,000. What is the base before additional legal interest?

A. PHP 568,000

B. PHP 250,000

C. PHP 560,000

D. PHP 508,000

16. A covered Maceda buyer paid six stipulated years and PHP 1m eligible payments. What is the cash surrender value?

A. PHP 600,000

B. PHP 550,000

C. PHP 500,000

D. PHP 900,000

17. A covered buyer paid fifteen months of installments and defaults for unrelated reasons. What grace period does section 4 specify?

A. At least fifteen days from contract signing

B. At least sixty days from the installment due date

C. One month per advertised construction year

D. Thirty days from the seller’s email

18. For the at-least-two-year category, what is necessary for actual cancellation under the stated statute?

A. Only a private letter

B. Only expiration of the construction period

C. Only an accounting write-off

D. The statutory notarial notice period and full surrender-value payment

19. Which institutional statement best follows RA 11201?

A. DHSUD regulates and HSAC has specified adjudicatory functions

B. DHSUD replaces every local permit authority

C. HLURB remains the sole current institution for all functions

D. PRC adjudicates every housing refund claim

20. An appraiser totals retail prices of unsold lots. What is the best conclusion?

A. The subtotal always equals corporate equity

B. No further project evidence is needed

C. Costs timing commitments and valuation method still require analysis

D. Subtract any arbitrary percentage and certify compliance

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	C
2	A	12	B
3	D	13	D
4	B	14	A
5	B	15	C
6	D	16	B
7	A	17	B
8	C	18	D
9	A	19	A
10	D	20	C

1. C PD 957 section 5 separates registration from the license to sell. A professional credential or survey does not supply project authorization.
2. A Section 2 includes offers and solicitation within sale. The substance of the transaction and any actual exemption must be checked.
3. D The subdivision project and lot definitions include commercial areas within the qualifying project. This differs from the specific RA 6552 exclusions.
4. B Section 7 lists the original purchaser's resale and subsequent sales. The exemption is specific and does not waive all other laws.
5. B Section 19 addresses advertised representations as sales warranties. Preserve version and relevance and compare actual delivery.
6. D Section 20 expressly allows another authority-fixed period. Internal rescheduling alone does not prove an extension.
7. A Section 22 requires authority permission and the statutory written conformity or consent. Other protected-land rules must also be considered.
8. C The stated 3.5% rate applies to gross area: 10,000 × 0.035 = 350. It is within the broader 30% reservation.
9. A Density is 200 ÷ 5 = 40, the PD 1216 medium-density teaching band. Do not replace gross area with net lot area.
10. D BP 220 authorizes differentiated standards. Category and operative issuance must be established before relying on detailed technical numbers.
11. C The amended subdivision rate is 15%: 60,000 × 0.15 = 9,000. The historical 20% rate is not used.
12. B The condominium rate is 5%: PHP 80m × 0.05 = PHP 4m. It is applied to the supplied accepted cost basis.
13. D RA 10884 specifies proposed socialized subdivision and condominium projects. The exemption is from this particular requirement.
14. A Section 23 addresses the stated development-failure situation. Section 24 and RA 6552 address default for other reasons.
15. C Add price payments and amortization interest; exclude delinquency interest: PHP 560,000. Do not apply a fifty-percent reduction.
16. B Six years earns 50% plus five percentage points, giving 55% of PHP 1m. Cancellation conditions remain separate.
17. B For fewer than two years, the minimum is sixty days from the installment due date, followed by the applicable cancellation process if payment remains unpaid.
18. D RA 6552 section 3 requires thirty days after receipt of the notice or demand by notarial act and full payment of the cash surrender value.
19. A RA 11201 establishes DHSUD and transfers the adjudicatory role to HSAC, with regional original jurisdiction and Commission appellate functions for the statutory cases.
20. C A retail subtotal is not automatically the project-interest value. The actual subject, obligations, remaining costs, timing and market evidence must support the opinion.

Worksheet model responses

Response 1

The title addresses registered ownership and annotations; the development permit addresses permitted development in its stated scope; registration identifies the regulated project. None replaces the section 5 license. Obtain the authentic license and verify inventory coverage, conditions and status, or establish a specific section 7 exemption. Keep building, occupancy, environmental and survey matters within their separate scopes.

Response 2

Three hectares = 30,000 sq m. Density = 120 ÷ 3 = 40 family lots per gross hectare, the stated medium band. Open space = 9,000 sq m. Park component = 2,100 sq m within that reservation. Balance of reservation = 6,900 sq m. Remaining area = 21,000 sq m before additional constraints; approved plans and applicable restrictions determine actual saleable area.

Response 3

Area reference = 30,000 × 15% = 4,500 sq m. Cost reference = PHP 90m × 15% = PHP 13.5m. They are alternatives under the stipulated accepted bases. The socialized exemption requires established classification under the relevant current framework and approval evidence, not just a low price or the developer's verbal statement.

Response 4

Buyer A begins with PD 957 sections 20 and 23: verify approved plans, completion period, failure, notice and elected remedy. Buyer B begins with section 24 and the coverage/payment-history conditions in RA 6552. Obtain the contracts, complete ledger, due dates, receipt evidence and any loan arrangement. Do not assume the same refund percentage for both.

Response 5

Seven stipulated installment years give seven earned months of grace, subject to the once-in-five-years limitation. Rate = 50% + 2 × 5 percentage points = 60%. Cash surrender value = PHP 720,000. Actual cancellation requires the statutory thirty-day period from receipt of notarial notice or demand and full payment of the surrender value.

Response 6

A contractor's rescheduling is evidence of intended construction timing, not an authority-fixed extension. Obtain the approval stating the completion period, any valid extension and its conditions, and an inspection or completion certification with remaining-work evidence. Compare brochures and buyer contracts as appropriate.

Response 7

Fully paid lots are committed to buyers and cannot be counted as uncommitted inventory; protected parkland is not ordinary sale stock. Separate the inventory categories and identify the actual developer interest. Investigate outstanding obligations, receivables without duplicate counting, costs, approvals, absorption, timing and the applicable valuation method.

Response 8

DHSUD performs the national housing regulatory role under RA 11201. Specified buyer claims fall within HSAC regional adjudicators' original jurisdiction; the Commission has the statutory appellate role. The lesson asserts no confirmed 2027 PRC weights, dates or revisions. Current price ceilings and complete technical design tables need applicable issuances and dated project checks.

22 Essential terms

Gross area The entire stated project area before deductions; identify the relevant legal measurement basis.

Saleable area Land or units established as sale inventory after applicable restrictions and commitments.

Registration certificate Evidence of project registration; not a substitute for a license to sell.

License to sell Project authorization for the covered selling activity, within its verified scope and status.

Performance bond Regulatory guarantee supporting specified development obligations.

Sales warranty An enforceable development representation within the applicable buyer-protection rule.

Open space The broad reserved land category; distinguish roads and facilities from the park component.

Balanced housing The amended socialized housing obligation for covered proposed projects.

Cash surrender value The statutory refund in the qualifying RA 6552 cancellation category.

Due notice The notice condition relevant to the stated PD 957 noncompletion remedy.

Notarial cancellation notice The formal notice or demand required by the applicable RA 6552 cancellation provision.

Committed inventory Lots or units subject to existing buyer rights; distinct from uncommitted sale inventory.

Cost to complete A supported estimate for defined remaining work, distinct from a market-value adjustment.

DHSUD Department of Human Settlements and Urban Development.

HSAC Human Settlements Adjudication Commission.

23 Sources and 2027 preparation status

Bracketed numbers point to the statutory readings below. This lesson paraphrases selected public legal provisions and authors original explanations and exercises. Read unconsolidated historical statutes with amendments and the applicable judicial interpretations. PD 1216 and RA 10884 are expressly incorporated rather than treating older printed provisions as the current rule.

The statutory texts listed were reviewed through online legal repositories on 12 October 2026. The curriculum uses the previously verified 2026 PRC coverage as a provisional preparation baseline; this chapter does not confirm a 2027 program, topic weight, date or future amendment. No official endorsement is asserted.

Current detailed PD 957 and BP 220 design tables, socialized price ceilings, administrative compliance modes, filing requirements, later HOA rules and project-specific approvals require their own dated checks. The annex displayed on the BP 220 page is not represented here as a complete current technical schedule. The worked open-space calculations expressly apply the stated PD 1216 statutory scenario; they are not blanket rules for all BP 220 designs.

Actual legal interest on a claim, damages, loan-payment consequences and validity of a disputed cancellation require case-specific legal analysis. None of the numerical exercises fixes those issues. Before the 2027 examination, refresh the official PRC issuances and operative housing sources and record any changes in your revision notebook.

1 PD 957

Subdivision and Condominium Buyers' Protective Decree, 12 July 1976. Selected sections 2, 4–10, 17–30, 32–33. Read section 31 with PD 1216 and historical institutional references with later laws.

https://lawphil.net/statutes/presdecs/pd1976/pd_957_1976.html

2 PD 1216

14 October 1977. Sections 1–2 define open space and amend PD 957 section 31, including gross-area reservations, density categories, park components and donation restrictions.

https://lawphil.net/statutes/presdecs/pd1977/pd_1216_1977.html

3 BP 220

Economic and socialized housing standards authorization, 25 March 1982. Sections 1–5. The page also includes annexed implementing material, whose current operative version must separately be established.

https://lawphil.net/statutes/bataspam/bp1982/bp_220_1982.html

4 RA 7279

Urban Development and Housing Act of 1992. Selected sections 21–23 on basic services, livelihood and participation. Its section 18 must be read as amended by RA 10884.

https://lawphil.net/statutes/repacts/ra1992/ra_7279_1992.html

5 RA 10884

Balanced Housing Development Program Amendments, 17 July 2016. Section 2 amends RA 7279 sections 3, 18 and 20. Supports the 15% and 5% references, socialized-project exemption and statutory compliance options.

https://lawphil.net/statutes/repacts/ra2016/ra_10884_2016.html

6 RA 6552

Realty Installment Buyer Act, 26 August 1972. Sections 3–7 on coverage, paid-installment categories, grace, surrender value, notarial cancellation, assignment, reinstatement and advance payment.

https://lawphil.net/statutes/repacts/ra1972/ra_6552_1972.html

7 RA 11201

Department of Human Settlements and Urban Development Act, 14 February 2019. Selected sections 4–5 and 12, 15–16 on regulation, institutional changes and adjudicatory jurisdiction.

https://lawphil.net/statutes/repacts/ra2019/ra_11201_2019.html

REALEX

Lesson 15

Condominium Interests and REIT Structures

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

A condominium unit, an interest in common property and a REIT share can all relate to the same real estate market while giving their owners different rights. This lesson teaches you to identify those rights and connect them to the correct appraisal, income and investment calculation.

The chapter develops Lesson 14's buyer-protection framework into condominium ownership and corporate property investment. You will read the master deed and restrictions, examine parking and common areas, apply the checked voting amendments, investigate assessments and reject the assumption that condominium ownership automatically expires after fifty years. The second part follows property income and value through a REIT to the shareholder.

All maps, examples, cases, worksheets and questions are newly authored study material. Bayfront Court and Meridian Income REIT are fictional. The legal sources and verification notes are at the back. The 2026 REIT circular has been identified through the official SEC index, but its full detailed clauses were not accessible for this edition; they are explicitly reserved for further verification.

Your learning goals

- Identify separate units and the directly or indirectly attached common interests.
- Read title, master deed, restrictions, plans and parking evidence together.
- Distinguish use permission, physical condition and transferable rights.
- Apply the checked RA 7899 master-deed voting bases and procedural conditions.
- Investigate foreign participation using the actual appurtenant interest structure.
- Explain assessments, registered liens, maintenance and the fifty-year misconception.
- Calculate comparable unit rates and a simple rental-income indication.
- Distinguish condominium corporation membership from REIT shares.
- Bridge property income to distributable income and dividends.
- Compute NAV per share, market capitalization, dividend yield and total return.
- Recognize independent appraisal and transaction-governance requirements.
- Separate checked statutory baselines from current-rule and 2027 update tasks.

Study plan: Allow four to five hours in two sessions. Study sections 1–9 on condominium interests first. Study sections 10–16 on REITs next. Draw the two maps in your notes, complete the worked cases and worksheet, and answer the twenty-question test before reviewing the explanations.

1 Identify the investment before calculating its value

A buyer of a condominium and a buyer of REIT shares both invest in real estate-related interests, but they acquire different rights. The condominium buyer acquires the identified unit interest and its legally attached common interests. The REIT investor acquires securities issued by a corporation that holds income-generating real estate directly or through permitted structures. The investor does not receive a title to a particular apartment merely by buying the shares.

This distinction controls the appraisal assignment. A unit appraisal needs the unit identity, rights, physical condition, restrictions and relevant unit market. A valuation of an underlying REIT property needs the defined real estate interest and its leases and operating evidence. An equity valuation must also address the entity's assets, liabilities, ownership structure and financial rights. A listed share price records trading in the security at a particular time. These amounts can differ without any arithmetic error.

The fictional Harana group owns a commercial condominium unit in Bayfront Court and is considering an investment in Meridian Income REIT. The unit is advertised with parking, an allocated common interest and permission for office use. The REIT owns a portfolio of leased buildings. Harana asks whether an appraised unit value can be compared directly with the REIT's quoted share price. The answer starts by defining the subject and the unit of measurement, not by placing two peso amounts next to each other.

As you read, keep four labels visible: unit property value, property portfolio value, entity net asset value and security price. A fifth label, shareholder cash return, describes the investor's receipts and change in investment price. Do not use a single word such as value to hide which of these is being measured.

2 The condominium interest combines separate and common rights

RA 4726 defines a condominium as a real property interest combining a separate interest in a unit with an undivided common interest, directly or indirectly, in the land and other common areas. The unit can be in a residential, industrial or commercial building. The legal interest may be ownership or another recognized real property interest. Consequently, the physical description alone does not prove a perpetual ownership interest in the underlying land. Read the tenure documents. [1, secs. 2–3]

The common interest can be held through direct co-ownership or through a specially formed condominium corporation. In the corporate arrangement, unit holders become members or shareholders in proportion to their appurtenant common interests. The arrangement links the unit to the common property rather than giving the investor an independently tradable corporate stake detached from the unit.

Consider a 60-square-meter office unit with a documented two-percent common interest. The owner has the described separate interest and the attached common rights. Two percent does not mean the owner can select and fence off two percent of the lobby or the land. The common rights remain undivided and are exercised through the governing legal and management arrangements.

Nor does two percent automatically mean two percent of every property's market value can be added to the office value. A comparable sale of a condominium ordinarily already reflects the relevant attached rights. Adding a separate share of the land again can duplicate the same benefit. Analyze the valuation unit and the evidence before decomposing the transaction amount.

The default statutory provision concerning equal common shares per unit applies unless otherwise provided. Many projects define different fractional interests. Read the recorded documents before assuming that the floor area ratio, unit count ratio, voting entitlement and expense-allocation ratio are identical. A project can lawfully require more careful reading than a single percentage formula.

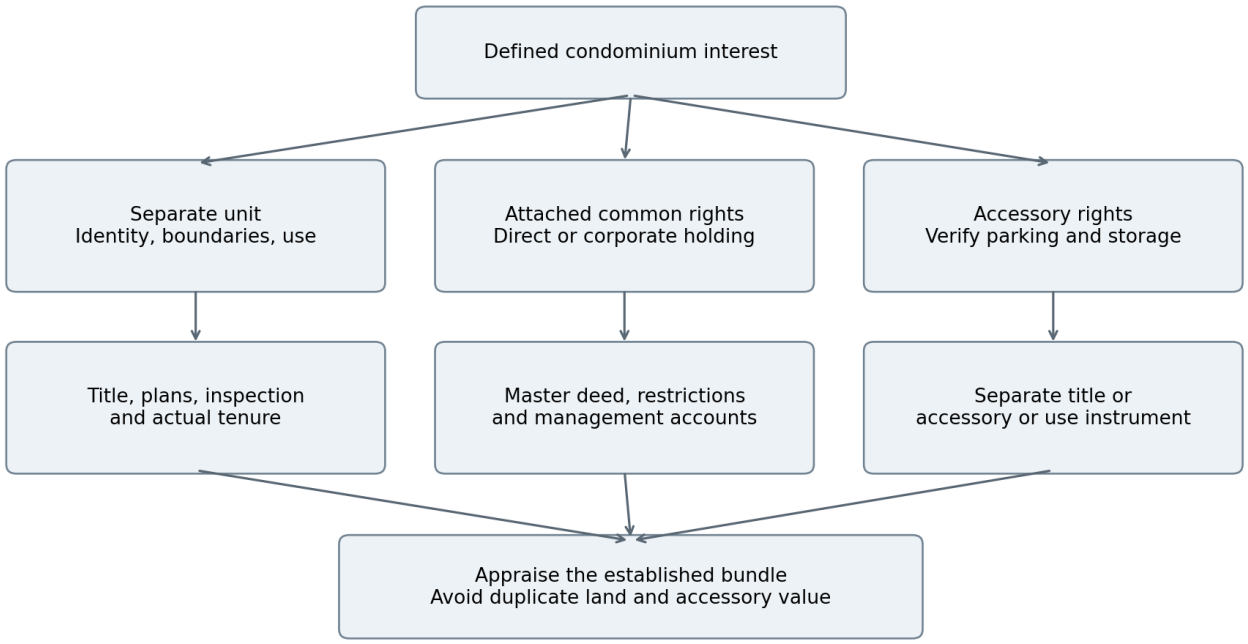


Figure 15.1 Original condominium interest map. Read each legal and evidence branch before combining the established rights in a valuation.

3 The master deed restrictions and title form the study file

The enabling or master deed identifies the land, buildings, units, common facilities, exact nature of the separate and common interests and the intended or restricted uses. Plans form part of the documentary framework. RA 4726 makes recording and annotation central to its application. An appraiser therefore reads the master deed with its registered amendments, rather than using a marketing brochure as the definitive statement of rights. [1, sec. 4]

The declaration of restrictions addresses management, voting rules, services, assessments and related matters. It is recorded and binds owners within the statutory framework. The condominium certificate of title, or CCT, assists in identifying the registered unit interest and relevant annotations. These documents answer related but different questions. The CCT's face is not a complete substitute for the master deed, restrictions, plans and amendments.

For Bayfront Court, request the CCT and registry verification, mother title where relevant, recorded master deed and plans, declaration of restrictions, condominium corporation documents, valid amendments, management certifications, dues statement, special-assessment notices and lease documents. Obtain the parking evidence separately. Match the unit number, level, area and boundaries across the file and the inspection.

If the title states 60 square meters while the broker's listing states 68, investigate the measurement basis and included areas. The extra eight square meters could be an erroneous listing, an included balcony, a separate accessory or a different gross-area convention. Dividing the price by whichever area produces the most attractive unit rate is not a defensible comparison.

The same caution applies to an assigned parking stall. It could be a separately titled interest, an accessory attached to the unit or a use right over a common area under a particular instrument. The painted number on

the floor proves physical identification, not the complete transferable right. Do not promise separate sale or mortgage capability without the corresponding legal evidence.

Record	Primary question
CCT and registry annotations	Which registered unit interest and encumbrances?
Master deed and plans	Which units, common areas, tenure and uses?
Declaration of restrictions	Which management and owner obligations?
Parking instrument	Which title, accessory or use right?
Management accounts and notices	Which dues, reserves, assessments and commitments?

4 Unit boundaries services and permissible alterations

Unless the master deed or declaration expressly provides otherwise, RA 4726 section 6 identifies the unit boundary through the interior surfaces of the perimeter walls, floors, ceilings, windows and doors. It distinguishes common structural elements, circulation areas, elevator equipment and central services from the separate unit. Physical location inside a room does not automatically make every pipe, structural column or service installation privately owned. [1]

An owner may have the right to decorate interior surfaces while lacking authority to cut a bearing wall, enclose a common corridor or interfere with central services. Investigate the structural and property boundaries, permits and governing documents. A contractor's statement that a wall is removable does not establish the legal right to alter it; an administrator's informal permission does not substitute for every technical approval.

Use restrictions can materially affect value. An office unit may not support the residential or short-stay rental use that gives the highest forecast income in a spreadsheet. A commercial permission may be limited by the recorded restrictions, local zoning, building occupancy, fire safety or lease terms. The highest and best use inquiry from Lesson 3 must apply legal permissibility to the identified unit interest, not merely to the larger neighborhood.

In comparing units, examine access, elevator reliability, floor level, view, light, layout, building systems, security and restrictions. A unit near a lift lobby might have stronger office access but less residential privacy. A view premium requires market support and may be affected by a proposed neighboring building. Avoid treating floor level or sea view as a universal fixed percentage adjustment.

Common facilities also affect operating usability. A gym, pool or centralized cooling system can create benefits and costs. Investigate actual availability, maintenance and charges. A sales statement that a building has complete amenities does not establish that all systems are functioning or financially funded.

5 Transfers mortgages and attached membership

RA 4726 section 5 links a unit transfer to the undivided common interest or the appurtenant membership or shareholding in the condominium corporation. Section 10 prevents that corporate membership from being transferred separately from the unit. A unit owner cannot ordinarily sell the unit while retaining its attached condominium corporation membership as a distinct speculative investment. [1]

Section 6 addresses the owner's ability to have the condominium appraised independently and to mortgage or otherwise encumber the interest. Read the actual unit and attached rights and any relevant restrictions. Independent appraisal does not mean the unit operates independently of common access, services, assessments or governance.

The master deed can include a requirement to offer the unit to other owners within a reasonable period before offering it outside. Investigate such a provision before assuming an unrestricted sale process. Determine who holds the right, the required notice, the permitted period and the effect of compliance. A vague reference to management consent should not replace reading the specific instrument.

For subsequent conveyances, section 18 requires the management body's certification that the conveyance complies with the declaration of restrictions. That certification does not replace the deed, registry process, tax documentation or verification of outstanding liabilities. It is one element of the transfer evidence. A broker's email saying the unit is clear is a different and less complete record.

An owner's outstanding mortgage is also distinct from the unit's market value. Suppose a defined condominium interest is valued at PHP 6 million and the owner owes PHP 2 million. The elementary PHP 4 million difference is a debt subtraction before other costs, not a revised property value of PHP 4 million. Label the owner's net position separately.

6 Foreign ownership requires the actual common-interest structure

The phrase foreigners can buy forty percent of a condominium is an incomplete study rule. RA 4726 section 5 distinguishes direct common-area co-ownership from the corporate arrangement. Where the owners directly co-own the common areas, the statute identifies permitted Filipino owners and qualifying corporations, with the stated hereditary-succession exception. Where a corporation holds the common areas, a unit transfer cannot validly cause the attached alien corporate interest to exceed legal limits. [1; 4]

The constitutional land restrictions and the corporate nationality test matter when Philippine land is involved. A unit-count percentage may be a poor proxy when appurtenant interests are unequal. Confirm the corporation's structure, share or membership allocation, existing foreign participation and the interest that the proposed transfer would add. Do not assume a corporate label creates an exception to land law.

In a stipulated teaching corporation, each of one hundred units has an equal one-percent appurtenant interest. If foreign interests currently equal thirty-eight percent, one additional equal unit produces thirty-nine percent; three additional units produce forty-one percent. The exercise illustrates the arithmetic on equal interests. It does not certify an actual nationality determination or authorize a transfer without checking the remaining legal requirements.

Now change the facts: the proposed unit carries a five-percent corporate interest while the unit count is only one of one hundred. Adding that interest to thirty-eight percent gives forty-three percent, not thirty-nine. Counting physical units can conceal the governing ownership allocation. In your answer, state whether the percentage measures units, stock, membership or another legal interest.

Leasehold and other tenure structures need their own analysis. A long lease can have value and expiry conditions without giving land ownership. Citizenship, corporate nationality, beneficial ownership and the nature of the property right are separate factual inquiries. An appraiser should describe the established interest and request a legal opinion where the ownership qualification is material and unresolved.

7 Amendments voting and common-area decisions

RA 7899 amends sections 4 and 16 of RA 4726. For the amended master-deed rule, it provides a simple majority of registered owners, measured per unit in an exclusively residential or exclusively commercial project and by floor area in a mixed-use project. It also requires prior notification and the statutory approvals before registration. Read the amended provision rather than repeating the original section 4 wording from an unconsolidated copy. [2]

The amended section 16 addresses common-area disposition and expansion or integration using its specified simple-majority and notice rules, with the stated final approval for expansion or integration. Do not conclude that every condominium decision uses the same vote or that a bare majority authorizes every possible action. Dissolution, assessments, restricted uses and other decisions require their own governing provisions and documents.

For an exclusive residential project with sixty registered units, the supplied simple-majority-per-unit teaching test requires thirty-one affirmative units. If only forty owners attend and twenty-one vote yes, that majority of those present does not by itself establish the stated majority of all sixty registered units. Notice and required approvals remain separate conditions.

For a mixed-use project with 12,000 square meters of registered ownership floor area, 6,000 square meters is exactly half. The affirmative area must exceed that amount for the stated simple-majority test. Six thousand one hundred square meters meets the numerical test; a count of small residential units alone may not. The result answers only the stipulated section 4 voting question.

Amended section 4 teaching case	Majority basis	Numerical example
Exclusive residential or commercial	Per unit ownership	60 registered units: 31 affirmative
Mixed use	Ownership floor area	12,000 sq m: more than 6,000 affirmative

RA 7899 names the historical HLURB. Read institutional references with the subsequent DHSUD and HSAC framework, and verify the current filing and approval route. A draft bill or committee report discussing newer thresholds is not proof of enacted law. The source notes identify the statutory text used here and the update check needed before final 2027 examination revision. [7]

8 Assessments reserves and the fifty-year misconception

Condominium ownership carries shared expenditure obligations. Under RA 4726 section 9, the restrictions may provide for reasonable assessments for authorized expenditures and their allocation, generally in proportion to common interests unless otherwise provided. Read the actual allocation. An owner's share of a lift replacement budget is not necessarily equal to a simple fraction based on the number of apartments. [1]

Section 20 distinguishes the owner's assessment obligation from the statutory lien created through registration of the required notice. It also addresses release and priority subject to specified exceptions and subordination. Do not assume an unpaid management invoice and a registered assessment lien are legally identical. Obtain the ledger and title annotations and determine how any claim will be treated in the proposed transaction.

For a PHP 10 million authorized replacement budget, a stipulated two-percent allocation gives PHP 200,000 for the unit. That cash obligation can matter to the buyer. But subtracting it mechanically from every comparable

sale is not always correct: investigate who pays, whether the comparable price already reflects the charge, payment timing and actual market behavior. A building reserve balance belongs within the common financial arrangements, not automatically as freely withdrawable cash owned by each unit holder.

The fifty-year claim confuses a statutory condition with automatic expiry. RA 4726 section 8(c) describes a partition-by-sale ground involving existence beyond fifty years, obsolescence and uneconomic condition, and opposition by owners holding more than fifty percent common interest to specified rehabilitation or modernization. Section 13(c) addresses a corresponding condominium-corporation dissolution ground with its own voting-interest description. Age alone does not satisfy all those conditions. [1]

Other statutory grounds include specified unrepaired damage, extensive untenantability, condemnation or expropriation and conditions in the registered restrictions. The mechanism and threshold depend on the ground and legal structure. A damaged project does not necessarily produce the same answer as an old but well-maintained project. Read which proceeding the question asks about.

A finite land lease, a deteriorating building and the condominium regime's duration are separate issues. A fifty-five-year-old building on owned land can remain usable; a much newer building can sit on an expiring lease. An appraisal should investigate remaining economic life, tenure, repair decisions, reserves and market response rather than inserting an automatic zero terminal value at the fiftieth year.

Question	What must be distinguished
Building is old	Age, condition and remaining economic life
Tenure is finite	Lease expiry, renewal and end obligations
Partition or dissolution sought	Specific statutory ground and its additional conditions
Owner predicts redevelopment	Lawful approvals, rights, costs and market evidence

9 Compare and value a condominium interest

Begin with verified comparable interests. Match use, building, unit area convention, included parking and accessories, tenure, date, condition, view and transaction terms. A furnished package can include personal property; an advertised amount is not a verified closing price. A sale with an unusual rent guarantee or seller financing may need separate interpretation before its unit rate is used.

Suppose a verified package price is PHP 6 million and a supported separately identified parking contribution is PHP 800,000. The remaining teaching unit component is PHP 5.2 million. On a consistent 52-square-meter unit-area basis, the rate is PHP 100,000 per square meter. This decomposition requires support for the parking component; it is not an invitation to choose a number that makes the comparable fit.

An income model should reflect permissible use and relevant operating responsibilities. For a rented unit, distinguish gross potential rent, vacancy or collection loss, expenses borne by the owner, debt service and special capital obligations. Determine whether dues are paid by the tenant or the landlord. Including the same dues in two expense lines understates income; omitting an owner's charge overstates it.

An illustrative unit rents for PHP 30,000 monthly. At eight-percent annual vacancy and collection loss, PHP 360,000 potential annual rent becomes PHP 331,200 effective rent. If owner expenses are PHP 75,000, the simplified NOI is PHP 256,200. Capitalizing at a supplied six-percent rate gives PHP 4.27 million. That model is only supportable if the income, expense treatment and rate correspond to the subject and market evidence.

If a one-time assessment is additionally payable, examine its timing and whether the stabilized model and market rate already reflect the condition. Reconcile comparison and income evidence by evaluating their relevance and reliability. Do not average two estimates solely because there are two. A residential owner-occupier market and an investor rental market may place different emphasis on the available evidence.

10 A Philippine REIT is a stock corporation

RA 9856 defines a REIT as a stock corporation principally formed to own income-generating real estate assets. The word trust is an internationally used description here, not the technical legal meaning of a trust under existing Philippine law. Investors subscribe to or purchase shares, which are subject to SEC registration and exchange listing requirements. [3, secs. 3–5]

The corporation can hold a portfolio with direct real estate interests and permitted indirect holdings. An investor's shareholding is an interest in the company and the rights attached to the security. It does not allocate an exclusive office, a surveyed parcel or a right to live in a particular building. Dividends are shareholder receipts; rents are receipts arising from property use under leases or other income rights.

A condominium corporation also uses a corporate structure, but its purpose and relationship to the unit are different. It holds or manages common interests appurtenant to unit ownership. Its membership follows the unit. A listed REIT share is a security investment; its owner need not also own a particular unit in the portfolio. The similarity of the word corporation should not hide this distinction.

The REIT framework can broaden access to property-related returns through smaller security investments. It also exposes investors to market prices, portfolio income, financing, governance and distribution decisions. Trading liquidity is not a guarantee of an immediate sale at the acquisition price. A share price can move while the appraisal date for the underlying property remains unchanged.

When studying a REIT plan, identify the assets, rights, income sources, sponsor, management arrangements, fees, leverage, material contracts and risks. Read the property evidence and the corporate evidence together. A glossy portfolio map does not establish that all assets are fully owned, fully leased or free of financing restrictions.

Interest	What the holder acquires
Condominium unit	Defined separate interest plus appurtenant common rights
Condominium corporation membership	Common-property arrangement attached to unit ownership
REIT share	Corporate security rights, not title to a chosen property
Underlying REIT real estate	Defined property interest held by the entity or structure

11 Income rights leases and holding structures

The statute's income-generating real estate concept concerns property held for a regular stream of income, such as rent or specified user-related receipts, with further definition by the SEC. The legal structure can include recognized real rights. A REIT is therefore not limited conceptually to one familiar office-building format, but each asset and holding arrangement must meet the applicable rules. [3, secs. 3(m), 8]

For appraisal, distinguish a property held for rental income from development inventory held primarily for sale. A developer's retail sales forecast does not automatically describe a REIT's sustainable property income. If a development is intended to be retained after completion, its risks, delivery costs and holding intention need to be established within the regulatory and valuation framework.

For leasehold assets, model the remaining enforceable term, renewal rights, rent reviews and end-of-term obligations. Do not give a finite right the same indefinite income stream as an otherwise similar perpetual ownership interest. Where a lessee has contractual obligations to reinstate or remove improvements, examine the cost and timing rather than treating the physical building as an unrestricted asset at expiry.

An indirect structure introduces another entity between the property and the REIT. Investigate the REIT's percentage interest, voting and control rights, liabilities, distribution restrictions and taxes at each level. A PHP 1 billion building held through a vehicle in which the REIT has a partial interest does not automatically become PHP 1 billion attributable equity for the REIT.

The SEC's official index confirms MC No. 1, series of 2026, dated 8 January 2026, revising the 2020 REIT rules. The primary full circular was not retrievable in this production run. This lesson therefore does not present specific 2026 SPV thresholds, sponsor reinvestment periods or revised shareholder definitions as clause-verified requirements. Those details belong on your mandatory update checklist, not in an unsupported answer key. [5]

12 From property income to shareholder distribution

Property NOI, corporate net income, distributable income and a dividend are different measures. NOI is a property operating measure defined for the analysis, commonly before financing and income tax. Corporate net income follows the applicable accounting framework. Distributable income under RA 9856 is a statutory adjusted-income measure. A dividend is the amount declared and distributed under the legal and financial requirements. [3]

Section 7 requires annual distribution of at least ninety percent of distributable income, subject to its retained-earnings condition, by the last day of the fifth month after fiscal-year close. Ninety percent applies to distributable income, not to gross rent, property value or the shareholder's purchase price. The rule does not promise a ninety-percent investment return.

The statutory definition adjusts net income for specified unrealized gains and losses, expenses and impairment items under the applicable accounting standards. For learning, a question may supply the verified distributable-income amount directly. If it instead supplies a bridge from net income, read every adjustment's sign and stated treatment. Do not assume every noncash entry is added back or every capital receipt is distributable.

The statute also distinguishes proceeds from a REIT asset sale reinvested within its specified period. That is not automatically the same issue as a sponsor's reinvestment of proceeds received in an asset transfer to the REIT. The taxpayer, recipient, transaction and operative rule must be identified. Avoid combining different reinvestment mechanisms merely because both use the word proceeds.

Measure	Meaning in this lesson
Property NOI	Defined property operating income before financing and income tax
Corporate net income	Accounting result under the applicable reporting framework
Distributable income	Statutory adjusted-income measure, not gross rent
Dividend	Lawful shareholder distribution on the applicable rights
Investor total return	Dividend plus security price change on the investment basis

For a supplied distributable income of PHP 100 million, the ninety-percent reference is PHP 90 million. If the exercise stipulates one hundred million equal participating shares and no preference or other allocation complication, the teaching dividend is PHP 0.90 per share. An investor with ten thousand such shares receives PHP 9,000 before any applicable withholding or transaction-specific treatment.

Corporate expenses, loan interest and fee arrangements can affect the income reaching the distribution level. High occupancy alone does not prove a strong dividend. Examine contract rent, incentives, collection, repairs, financing and reserves. A cash-rich quarter and an annual distributable-income calculation also answer different timing questions.

13 NAV per share market capitalization and returns

RA 9856 describes net asset value as total assets less total liabilities under the applicable implementing framework. In a simplified teaching bridge, property assets of PHP 5 billion plus PHP 200 million other assets less PHP 1.7 billion liabilities give PHP 3.5 billion NAV. On five hundred million equal shares, NAV per share is PHP 7. State whether the asset amounts are accounting figures, current valuation inputs or supplied exercise assumptions. [3, sec. 3(u)]

If the quoted share price is PHP 6.30, market capitalization is PHP 6.30 × 500 million = PHP 3.15 billion. Price-to-NAV is 6.30 ÷ 7 = 0.90, a ten-percent discount on that stated NAV basis. The exchange price does not mechanically revalue each building down by ten percent. Corporate expectations, financing, governance, liquidity, timing and the NAV measurement basis can contribute to the difference.

A property portfolio appraisal can support the asset side of an equity analysis, but it is not sufficient by itself. Add the other relevant assets and subtract the relevant liabilities without double counting. Where a parent has indirect holdings, consolidation and attributable interests must be reconciled. Book NAV is not automatically adjusted economic NAV, and adjusted NAV is not automatically the observed share price.

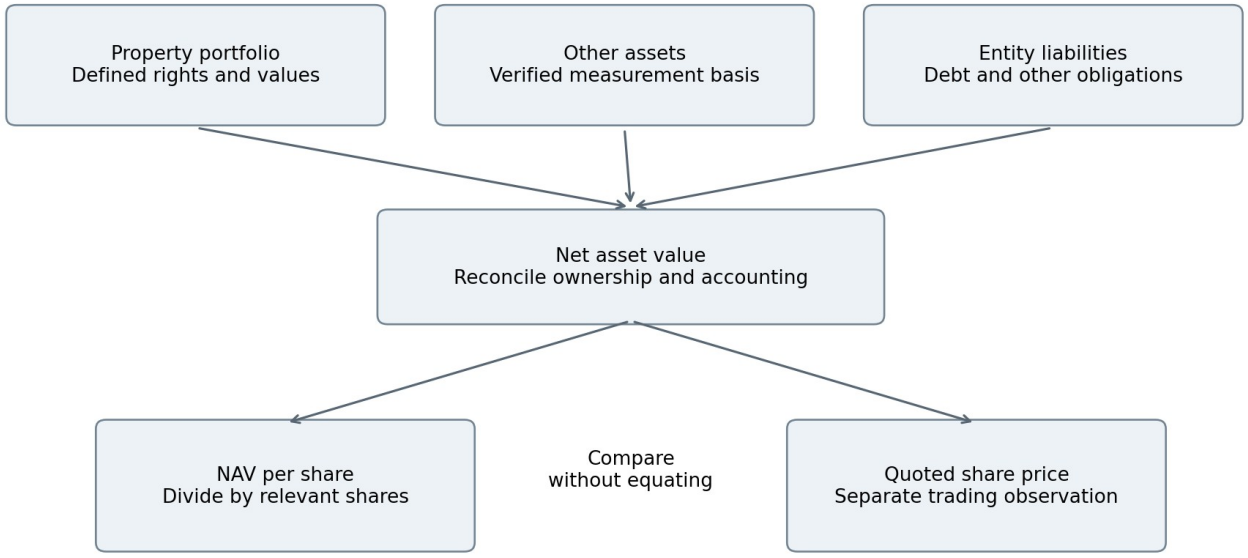


Figure 15.2 Original property-to-equity bridge. Measurement bases, attributable interests and share rights must be consistent. Quoted price is a separate observation.

Dividend yield divides a defined annual dividend per share by the selected price. A PHP 0.60 dividend on a PHP 10 purchase price gives six percent. The same dividend on a PHP 8 current price gives seven and one-half percent. The numerator has not grown; the denominator has changed. A rising quoted yield can accompany a falling investment price.

Gross holding-period total return adds the dividend and price change, then divides by purchase price. Buying at PHP 10, receiving PHP 0.60 and selling at PHP 9.20 gives (0.60 + 9.20 − 10) ÷ 10 = minus two percent. This illustrates why positive cash distributions do not guarantee a positive total return. Taxes, fees, timing of intermediate distributions and reinvestment require separate treatment when included in the question.

New shares can alter per-share results. A property acquisition financed through share issuance can increase total assets but reduce NAV per share if the consideration, liabilities and issue terms produce dilution. Count the post-transaction shares and costs, and compare like measurement bases. Bigger portfolio value is not the same as better value per share.

14 Governance management and the independent appraisal

The statutory fund manager organizes the investment strategy and coordinates acquisition, financial reporting, appraisals and other portfolio activities. The property manager administers the real estate, including tenants, leases, rent collection and physical operation. The functions can interact, but they answer different management questions. An appraiser provides an independent opinion within a specified assignment; the opinion does not itself authorize an acquisition or certify all corporate compliance. [3]

RA 9856 section 8.12 requires at least annual full valuation by an independent appraisal company duly accredited by the SEC under its prescribed rules. A licensed individual appraiser's general professional authority and the company's relevant SEC accreditation should not be treated as interchangeable credentials. Current accreditation categories, method requirements and reporting details need their operative issuances.

Section 8.11 addresses related-party safeguards, including disclosure, fair and reasonable terms, specified board approval and an independent-appraiser fairness opinion for the relevant property transactions. An acquisition from the sponsor is a prime situation for careful conflict and evidence analysis. The proposed price may express a negotiating position rather than establish market value.

An appraisal of property and a fairness opinion on a transaction are not simply the same report with a different cover. Identify the question and the scope. Transaction terms can include debt assumption, share consideration, contingent payments, fees and lease commitments. The real estate appraisal may be an important input while still leaving corporate and financial questions to appropriate specialists.

Suppose a sponsor offers a building for PHP 1.2 billion while the supported defined-interest appraisal is PHP 1.05 billion. The PHP 150 million difference prompts an explanation of included rights, transaction terms, dates and evidence. It should not be removed by silently changing the capitalization rate to reach the offered price. Seek relevant information, reconsider supported assumptions where warranted and maintain the independence taught in Lesson 10.

15 Review risk without inventing a discount

For a condominium, investigate the unit and the shared building. A sound interior does not eliminate roof, lift, fire-system or financing problems at project level. A well-funded replacement plan can be different from deferred maintenance with no reserves. Verify engineering evidence and legal obligations, then investigate the market response.

For a REIT property, examine tenants, lease expiry, credit quality, concentration, market rent, incentives, repair obligations and capital expenditure. Ninety-five-percent physical occupancy can coexist with arrears. A lease expiring next month does not carry the same income certainty as an otherwise comparable long agreement. Define whether occupancy means area leased, area occupied or another disclosed measure.

At entity level, add financing and governance questions. Variable interest, maturity concentration, covenant limits, related-party dealings and management fees affect investor outcomes. At security level, consider price volatility, trading liquidity and the shareholder's rights. A portfolio of several buildings can still be economically concentrated in one tenant, location or sponsor relationship.

Do not equate a statutory leverage ceiling with a prudent debt target or a lender's actual approval. The Act states baseline requirements and allows specified SEC regulatory treatment. A calculation question can stipulate the applicable ceiling and denominator; an actual current compliance conclusion needs the operative amended rules, defined deposited property and complete borrowings and deferred payments.

Use a visible input chain: observed fact, evidence source, consequence, model treatment and sensitivity. If market rent falls by ten percent, show the income effect under stated assumptions. If a lift assessment is due, determine who pays and when. Avoid deducting the same risk through a reduced cash flow, a separate cost and an unexplained discount rate increase.

16 Integrate the legal interest and the financial model

The central case ends with two separate decisions. Harana evaluates the Bayfront unit through title, master deed, restrictions, physical inspection, management accounts and comparable or income evidence. It evaluates Meridian REIT shares through the security rights, portfolio evidence, entity accounts, liabilities, distribution information and market price. Combining both decisions in one spreadsheet does not make their valuation subjects identical.

For a situational examination answer, write the subject first. Then identify the controlling document or law, the relevant date and the required evidence. State whether a vote is by units, floor area, common interest or corporate voting rights. For a financial question, write the measure's numerator and denominator before the result.

Remember the most frequent errors: treating parking permission as a separate title; adding land value again to a unit price; counting foreign ownership only by units despite unequal interests; applying the amended section 4 vote to every decision; assuming automatic expiry after fifty years; calling gross rent distributable income; reading the ninety-percent payout as a return; and equating NAV with a quoted share price.

Your revision sheet should show the condominium interest map on one side and the property-to-equity bridge on the other. Add a dated source checklist for the current SEC rules and any condominium-law amendments. The following ten cases and twenty questions test the verified statutory concepts and supplied financial assumptions; they do not test unverified clauses of the 2026 circular. Lesson 16 turns to agrarian legislation and land-conversion constraints.

17 Ten worked condominium and REIT cases

Attempt each question first. The supplied legal structures, payment inputs and rates are teaching assumptions. Explain the interest and conditions as well as the calculation. None of the cases tests unverified detailed 2026 circular clauses.

Case 1 Define the unit and parking

Question: A listing offers a 52 sq m unit for PHP 6m with parking. The parking contribution is independently supported as PHP 800,000. The governing documents confirm both transferable interests. Calculate the unit component and unit rate.

Solution: Unit component = PHP 6m − PHP 0.8m = PHP 5.2m. Rate = PHP 5.2m ÷ 52 = PHP 100,000 per sq m. Parking remains separately identified in this teaching decomposition.

Reasoning: Verify the price, area convention and rights. A painted parking stall number alone would not establish the stipulated transferable parking interest. Do not add the attached common land interest again. [1]

Case 2 Common interests are not private plots

Question: A unit has a recorded 2% common interest. The owner asks to fence off 2% of the landscaped grounds and sell attached corporation membership separately.

Solution: Neither request follows from the percentage. The common interest is undivided, and membership in the condominium corporation is appurtenant to the unit rather than separately transferable. [1, secs. 5–7, 10]

Reasoning: A proportional interest measures rights within the legal structure; it does not create an exclusive surveyed parcel. Read restrictions and any lawful arrangements for exclusive use.

Case 3 Vote on the correct denominator

Question: An exclusive residential project has 60 registered units. Under the stipulated amended section 4 per-unit test, 40 units are represented and 21 vote yes. Has the numerical majority of all registered units been achieved?

Solution: No. A simple majority of 60 requires 31 affirmative units on the supplied facts. Twenty-one is a majority of 40 present but not a majority of all 60. Required notice, approvals and registration remain separate. [2]

Reasoning: The question asks the amended master-deed rule, not every possible meeting resolution. For a mixed-use project, the stated section 4 denominator is ownership floor area.

Case 4 A fifty-five-year-old building

Question: A condominium is 55 years old, maintained, viable and without the stipulated opposition to rehabilitation. The broker says ownership automatically expired five years ago.

Solution: Age alone does not establish the statutory partition or dissolution ground. The relevant provisions include additional obsolescence, economic and opposition conditions. Verify tenure and restrictions rather than assuming expiry. [1, secs. 8(c), 13(c)]

Reasoning: A land lease with a fixed expiry would be a separate issue. The condominium regime, building condition and tenure duration must not be collapsed into one date.

Case 5 Calculate the special assessment

Question: An authorized common lift replacement budget is PHP 10m. The recorded expense allocation for the unit is stipulated as 2%. What is the allocation and how does it enter appraisal?

Solution: Allocation = PHP 10m × 2% = PHP 200,000. Verify the obligation, payment timing, legal status and who bears it. Investigate whether comparison prices or the income model already reflect it before any further adjustment.

Reasoning: An expense allocation does not by itself measure the exact market-value loss. A registered assessment lien and an unpaid invoice are also distinct evidence. [1, secs. 9, 20]

Case 6 Calculate condominium rental income

Question: Monthly potential rent is PHP 30,000. Annual vacancy and collection loss is 8%. Owner operating expenses are PHP 75,000, with no duplicate dues and no debt in NOI. Use a supplied 6% capitalization rate.

Solution: Annual potential rent = PHP 360,000. Effective rent = PHP 331,200. NOI = PHP 256,200. Illustrative capitalized amount = PHP 256,200 ÷ 0.06 = PHP 4,270,000.

Reasoning: The rate and expense treatment must be supported for an actual appraisal. One-time assessments, other income and special use restrictions need separate analysis where relevant.

Case 7 Check foreign participation by interest

Question: A landholding condominium corporation has stipulated foreign participation of 38%. A proposed unit transfer adds a 5% appurtenant corporate interest. For this exercise the legal limit is stipulated as 40%.

Solution: Resulting participation = 38% + 5% = 43%, exceeding the stipulated limit. One physical unit does not mean one percentage point where attached interests are unequal.

Reasoning: Verify the legal common-area structure, share allocation, nationality and beneficial ownership. This arithmetic does not certify an actual transaction. [1, sec. 5; 4]

Case 8 Distributable income is not rent

Question: A REIT exercise supplies verified distributable income of PHP 100m, 100m equal participating shares and no preference complication. Calculate the 90% reference and dividend per share at that distribution.

Solution: Dividend reference = PHP 100m × 90% = PHP 90m. Per share = PHP 90m ÷ 100m shares = PHP 0.90. A holder of 10,000 shares receives PHP 9,000 before any applicable deductions. [3, sec. 7]

Reasoning: The base is distributable income. It is neither gross portfolio rent nor 90% of the investor's capital. Actual lawful declaration and payment remain subject to the relevant requirements.

Case 9 Bridge assets to NAV and trading price

Question: A teaching entity has PHP 5bn property assets, PHP 200m other assets, PHP 1.7bn liabilities and 500m equal shares. The quoted price is PHP 6.30. Calculate NAV, NAV per share, market capitalization and price-to-NAV.

Solution: NAV = PHP 5bn + PHP 0.2bn − PHP 1.7bn = PHP 3.5bn. NAV/share = PHP 7. Market capitalization = PHP 3.15bn. Price-to-NAV = 0.90; discount to the stated NAV = 10%.

Reasoning: Specify the measurement basis. A share discount does not prove each building has lost 10% of its appraised value. Do not subtract debt twice or ignore attributable interests. [3, sec. 3(u)]

Case 10 Positive dividends and negative total return

Question: An investor buys at PHP 10, receives PHP 0.60 and sells after one year at PHP 9.20. Ignore fees, tax and reinvestment. Calculate yield on cost and total return.

Solution: Dividend yield on cost = 0.60 ÷ 10 = 6%. Price change = −PHP 0.80. Total gain = −PHP 0.20. Gross total return = −0.20 ÷ 10 = −2%.

Reasoning: The dividend is positive but smaller than the price loss. If current yield used PHP 9.20 as denominator, it would answer a different question from yield on the original purchase price.

18 Condominium and REIT worksheet

Suggested time: 45 minutes. Show the base, units, rate and calculation. Use the response lines for key points and a separate sheet for full answers. This is an original study aid, not an official conveyance or compliance form.

1 Create the legal interest file

Bayfront Unit 8B is advertised as 60 sq m with parking and a 2% common interest. Name the records needed to verify each element, permitted use, transfer restrictions and assessment liabilities.

_____

_____

_____

2 Calculate the mixed-use vote

A mixed-use project has 12,000 sq m registered ownership floor area. The proposed master-deed amendment receives votes representing 5,800 sq m. Apply the supplied RA 7899 section 4 majority test and state what further process is required.

_____

_____

_____

3 Separate building age and tenure

An owner says a 52-year-old project automatically expired, while another unit is on a lease with 12 years remaining. Explain why the legal and valuation questions differ.

_____

_____

_____

4 Allocate and interpret costs

A common replacement budget is PHP 8m. Your unit’s stipulated allocation is 1.5%. Compute the charge and explain why it is not automatically an exact market-value deduction.

_____

_____

_____

Condominium and REIT worksheet continued

5 Build the unit income model

Potential monthly rent is PHP 25,000, annual vacancy loss is 10% and owner operating expenses are PHP 60,000. Calculate effective annual income, NOI and the teaching capitalized amount at a supplied 6% rate.

_____

_____

_____

6 Compute the dividend reference

Supplied distributable income is PHP 80m. There are 120m equal participating shares and no preference complication. Use the 90% reference and find dividend per share and the amount for 5,000 shares.

_____

_____

_____

7 Bridge NAV and share price

Supplied assets total PHP 4.5bn, liabilities PHP 1.5bn and shares 600m. Price is PHP 4.50. Calculate NAV/share, market capitalization and price-to-NAV. State why this does not determine each property value.

_____

_____

_____

8 Review the original assignment

The sponsor seeks an appraisal solely to reach a PHP 1.2bn transaction price. The file lacks full 2026 REIT circular clauses. State the appropriate independent response and the current-rule verification steps before certifying regulatory compliance.

_____

_____

_____

19 Review and examination checks

Question	Essential check
What is the subject?	Unit, common interest, portfolio, entity or security
What does parking include?	Title, attached accessory or use right
What is the area basis?	Match legal identity and comparison measurement
Can use or transfer change?	Read restrictions and required process
Which ownership ratio?	Verify appurtenant allocation and nationality
Which voting rule?	Read the act, ground and prescribed denominator
Is the building fifty years old?	Age alone is not automatic legal expiry
Which assessment evidence?	Obligation, allocation, notice, timing and lien
What is the income base?	NOI, net income and distributable income differ
What does ninety percent mean?	Payout on distributable income, not return on capital
What does NAV measure?	Assets minus liabilities on the stated basis
What does share price measure?	A separate trading price for the security

An answer sequence that reveals your reasoning

Name the interest and date. Identify the legal document or rule. State the condition, denominator or evidence needed. Calculate only after those elements are clear. Finish by identifying the result as a charge, rate, income, property indication, NAV or return.

For a missed question, change one fact and explain whether the answer changes. Replace equal common interests with unequal interests, replace an exclusive residential project with mixed use, or replace a positive share-price change with a loss. This tests reasoning more effectively than memorizing the letter of the answer.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These questions are newly authored learning exercises, not actual, recalled or reproduced PRC items. Use the legal and financial assumptions expressly supplied.

1. Which best describes the statutory condominium interest?

A. A freely selectable piece of common land

B. Only a corporate dividend right

C. A unit interest with attached undivided common rights

D. An apartment automatically expiring at fifty years

2. A painted parking stall number is shown during inspection. What is the best next step?

A. Verify the instrument defining the parking right

B. Treat it as an independently transferable title

C. Ignore parking in every valuation

D. Assume it is included in the unit’s area

3. Which record principally describes units common areas and the exact granted interests?

A. A broker’s price list

B. An unverified building photograph

C. A tenant’s utility bill

D. The recorded master deed and its plans

4. A pipe serving multiple units runs inside one room. What is the sound conclusion?

A. It is private property solely because it is inside

B. Its legal classification requires the documents and statutory defaults

C. It can always be removed without approval

D. Its location proves separate title

5. An owner sells the unit and wants to retain its appurtenant condominium corporation membership. What rule matters?

A. The membership is always a listed share

B. The membership follows the unit and is not separately transferable

C. Only the broker decides membership

D. The membership survives every unit transfer independently

6. The statutory default mentions equal common shares per unit. What should an appraiser do?

A. Apply equality despite all recorded provisions

B. Assume area always supplies every allocation

C. Assume voting and dues must use one identical ratio

D. Read whether the governing instruments provide otherwise

7. A proposed unit carries 5% appurtenant corporate interest and existing foreign interest is 38%. On a stipulated 40% limit, what results?

A. 43% on the stated interest basis

B. 39% because it is one unit

C. 40% automatically

D. 5% total foreign participation

8. An exclusive residential project has 80 registered units. Under the supplied amended section 4 per-unit test, what is a simple majority?

A. 40 affirmative units

B. A majority of any five attendees

C. 41 affirmative units

D. 20 affirmative units

9. For the amended master-deed majority rule in a mixed-use project, which stated basis applies?

A. Only number of residential units

B. Only number of attendees

C. The sponsor’s share price

D. Ownership floor area

10. Which conclusion follows solely from a condominium being fifty-five years old?

A. Age alone does not establish the statutory partition ground

B. All unit rights ended five years ago

C. The land title has become public property

D. Every owner must sell immediately

11. A properly allocated authorized PHP 12m budget assigns 1% to a unit. What is the charge?

A. PHP 12,000

B. PHP 1.2m

C. PHP 120,000

D. PHP 12m

12. An unpaid management invoice is supplied. Which is best?

A. Every invoice automatically proves a registered statutory lien

B. Check the obligation and any registered assessment notice separately

C. No invoice can be relevant

D. It necessarily belongs to a REIT investor

13. A PHP 5.2m unit component uses a consistent 52 sq m area. What is the rate?

A. PHP 100,000 per sq m

B. PHP 10,000 per sq m

C. PHP 52,000 per sq m

D. PHP 5.2m per sq m

14. What does purchasing Philippine REIT shares normally acquire?

A. Title to a chosen office in the portfolio

B. A surveyed land portion per share

C. The corporate security and its shareholder rights

D. Automatic residence in any portfolio building

15. Which best describes the Philippine REIT's statutory form?

A. A homeowners association in every case

B. A traditional private trust in the technical sense

C. An individual appraiser's personal account

D. A stock corporation under the statutory REIT framework

16. Supplied distributable income is PHP 50m. What is the statutory 90% reference?

A. PHP 5m

B. PHP 45m

C. 90% return on purchase price

D. PHP 50m of gross rent

17. Assets are PHP 4bn and liabilities PHP 1bn, with 600m equal shares. What is simplified NAV per share?

A. PHP 5

B. PHP 6.667

C. PHP 1.667

D. PHP 3bn per share

18. A PHP 0.60 annual dividend and PHP 10 purchase price give what dividend yield on cost?

A. 90%

B. 6%

C. 60%

D. 0.6%

19. Buying at PHP 10, receiving PHP 0.60 and selling at PHP 9.20 gives what gross one-year total return?

A. 6%

B. 8%

C. 90%

D. Minus 2%

20. The official SEC index identifies a 2026 amendment, but the full circular has not been read. What is the best response?

A. Certify every 2020 procedural rule as current

B. Use a social-media summary as complete compliance evidence

C. Retrieve and check the current clauses before a compliance conclusion

D. Guess new thresholds from a prospectus headline

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	C
2	A	12	B
3	D	13	A
4	B	14	C
5	B	15	D
6	D	16	B
7	A	17	A
8	C	18	B
9	D	19	D
10	A	20	C

1. C RA 4726 combines separate unit and direct or indirect common interests. Their exact nature must be read in the recorded documents.

2. A A physical marking does not prove whether the interest is separately titled, appurtenant or merely a defined use right.

3. D The master deed provides the statutory project and interest description. Read amendments, title and restrictions together.

4. B RA 4726 distinguishes central services from the unit under its default rules. Physical location alone is insufficient.

5. B Section 10 links membership to unit ownership; section 5 addresses conveyance of the attached interests.

6. D The default is subject to other provisions in the documents. Different rights and allocation questions need their own evidence.

7. A 38% plus 5% equals 43%. A physical unit-count proxy can mislead where attached interests differ.

8. C A simple majority exceeds half of all eighty on the supplied facts. Notice, approvals and registration remain separate conditions.

9. D RA 7899 section 1 specifies floor area of ownership for mixed use. It is not a universal rule for every project decision.

10. A The cited statutory grounds require additional conditions concerning obsolescence, economics and opposition. Tenure is a separate inquiry.

11. C PHP 12m multiplied by 0.01 gives PHP 120,000. This allocates expenditure and does not alone establish a value loss.

12. B RA 4726 section 20 distinguishes the assessment obligation from the lien arising through the statutory registered notice.

13. A 5,200,000 divided by 52 is 100,000. Confirm the package decomposition and area convention before comparison.

14. C RA 9856 makes investment through shares. The property and the corporate security are distinct subjects.

15. D RA 9856 expressly identifies a stock corporation and explains the limited descriptive use of the word trust.

16. B The base is supplied distributable income: 50m × 0.90 = 45m. It is not the investor’s capital or gross revenue.

17. A NAV is PHP 3bn and divided by 600m shares gives PHP 5. State the supplied measurement basis.

18. B 0.60 divided by 10 equals 0.06 or six percent. A different denominator would answer a different yield question.

19. D The dividend plus price change is minus PHP 0.20; divide by PHP 10 to obtain minus two percent, ignoring stated excluded costs.

20. C Issuance identity is not full clause verification. Read the governing sources, dates and applicability before certifying current regulatory details.

Worksheet model responses

Response 1

Obtain registry-verified CCT and relevant annotations, the recorded master deed and plans, restrictions and valid amendments, parking title or accessory/use-right instrument, and the appurtenant common-interest allocation. Add corporation and management documents, dues and assessment records, management transfer certification and any lease. Verify area conventions and inspect the actual unit and building.

Response 2

5,800 ÷ 12,000 = 48.333%, below a simple majority of all ownership floor area. More than 6,000 sq m is required for the stipulated numerical test. Prior notifications, the approvals stated in the amended provision and registration are separate requirements. An ordinary count of units or attendees is not the stated mixed-use denominator.

Response 3

Age alone does not establish the additional statutory conditions for partition or dissolution. The 12-year lease raises enforceable-term, renewal, expiry and reinstatement questions whether the building is young or old. Read tenure, legal grounds and project documents separately, then model the actual interest rather than a presumed perpetual income stream.

Response 4

PHP 8m × 1.5% = PHP 120,000. Verify authorization, recorded allocation, timing, liable owner and any registered notice. Market response can differ from the nominal expenditure, and comparable prices or the existing model may already reflect it. Avoid duplicate treatment.

Response 5

Potential annual rent = PHP 300,000. Vacancy loss = PHP 30,000. Effective rent = PHP 270,000. NOI = PHP 210,000. At the supplied 6% rate, illustrative value = PHP 3.5m. Debt payments are not included in this property NOI. Actual use, expense responsibility and rate require support.

Response 6

Reference = PHP 80m × 0.90 = PHP 72m. Dividend/share = PHP 72m ÷ 120m = PHP 0.60. Five thousand shares receive PHP 3,000 before applicable deductions. This uses supplied distributable income and participating-share assumptions, not a derivation from gross rent or a guarantee of payment.

Response 7

NAV = PHP 3bn; NAV/share = PHP 5. Market capitalization = PHP 2.7bn. Price-to-NAV = 4.50 ÷ 5 = 0.90, a 10% discount to the supplied basis. Trading the security reflects entity and market considerations; the arithmetic does not revise each building's appraisal or determine corporate compliance.

Response 8

Define the property interest, basis, date and intended use; investigate relevant evidence and provide a supported conclusion without manipulating inputs to meet the target. Distinguish the property appraisal from a transaction fairness assignment. Retrieve the full current SEC circular, read it with the 2020 IRR and later issuances, verify effectivity, applicable clause and required accreditation and document any unresolved compliance matter.

22 Essential terms and formula review

Appurtenant interest A right attached to the unit, not an independently selectable common parcel.

Common area Project area other than separately granted, held or reserved units under the legal definition.

Master deed Recorded enabling instrument identifying the project and granted rights.

Declaration of restrictions Recorded framework for management, owner obligations and relevant restrictions.

Assessment An authorized common-expenditure charge allocated on the applicable basis.

NAV Total assets less total liabilities under the applicable measurement framework.

Distributable income The statutory adjusted-income measure used for the REIT distribution rule.

Market capitalization Security price multiplied by the relevant outstanding share count.

Yield on cost A defined dividend divided by the investor’s acquisition price.

Total return Income distributions plus price change on the stated investment basis.

Calculation	Teaching formula
Price per square meter	Comparable unit component ÷ consistent unit area
Unit assessment	Authorized budget × applicable allocation
NOI	Effective property income − owner operating expenses
Capitalized indication	Defined NOI ÷ corresponding capitalization rate
Dividend reference	Supplied distributable income × 90%
NAV per share	(Supplied assets − liabilities) ÷ relevant share count
Dividend yield	Defined annual dividend per share ÷ selected share price
Gross holding-period return	(Dividend + sale price − purchase price) ÷ purchase price

For the last two formulas, use matching per-share amounts. For NAV, complete the assets-minus-liabilities subtraction before dividing. State exclusions such as fees, tax and reinvestment. These review formulas do not substitute for the full applicable legal or valuation framework.

23 Sources and 2027 preparation status

Bracketed source numbers identify the primary readings below. Selected statutory provisions were reviewed on 12 October 2026. RA 7899 is incorporated so the original sections 4 and 16 are not presented as unamended current rules. The fifty-year discussion applies the cited statutory conditions and does not treat a proposed bill as enacted law.

The SEC official index confirms MC No. 1, series of 2026, dated 8 January 2026. The full circular could not be retrieved from the official page during production. This edition therefore teaches checked statutory concepts and supplied financial calculations, while reserving revised SPV/JV control and distributions, sponsor reinvestment, public-shareholder definitions, fee safeguards and detailed reporting clauses for full-primary-text verification. It does not certify all 2020 procedural rules as current.

Current tax rates and exemptions, detailed SEC accreditation, exchange listing rules and project-specific corporate nationality questions require separate operative sources. Corporate-law provisions must also be read with the Revised Corporation Code and applicable special law. No tax incentive is represented as automatic merely because the investment is called a REIT.

This is an original preparation lesson within the proposed curriculum, not an official PRC publication. No confirmed 2027 topic weight, date or syllabus change is asserted. Before the examination, recheck the official program, any later condominium legislation and the complete amended SEC framework.

1 RA 4726

The Condominium Act, 18 June 1966. Selected sections 2–10, 12–18 and 20. Read the original sections 4 and 16 with RA 7899. Supports unit and common interests, restrictions, transfers, assessments and conditional partition/dissolution grounds.

https://lawphil.net/statutes/repacts/ra1966/ra_4726_1966.html

2 RA 7899

23 February 1995. Sections 1–2 amend the master-deed and common-area provisions. Supports the stated majority bases, notice, approval and registration distinctions. Historical agency references need the later institutional framework.

https://lawphil.net/statutes/repacts/ra1995/ra_7899_1995.html

3 RA 9856

REIT Act of 2009, 17 December 2009. Selected sections 3–8 and 9. Supports corporate and securities structure, adjusted income, dividends, NAV, management, valuation and governance baselines. Read with current implementing rules.

https://lawphil.net/statutes/repacts/ra2009/ra_9856_2009.html

4 Philippine Constitution

1987 Constitution, Article XII, particularly sections 2–3 and 7 on land ownership qualification. Actual nationality and beneficial-ownership determinations require the relevant law and case-specific evidence.

https://lawphil.net/consti/cons1987.html

5 SEC 2026 REIT amendment identity

Official index entry for MC No. 1, series of 2026, dated 8 January 2026, revising MC No. 1, series of 2020. Index identity verified; full current operative clauses remain a verification task in this edition.

https://www.sec.gov.ph/mc-2026/sec-mc-no-01-series-of-2026/

6 Revised Corporation Code

RA 11232, 20 February 2019. Read corporate and dividend matters with applicable special-law provisions; this lesson does not replace every older corporate reference by assuming the special condominium rules have disappeared.

https://lawphil.net/statutes/repacts/ra2019/ra_11232_2019.html

7 RA 11201

14 February 2019. Selected sections 4–5, 12 and 15–16 supply the DHSUD/HSAC institutional framework for reading historical housing-agency references. Verify the current specific approval or adjudication route.

https://lawphil.net/statutes/repacts/ra2019/ra_11201_2019.html

REALEX

Lesson 16

Agrarian Legislation and Land Conversion

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

An agricultural property can have development potential while remaining subject to protected tenure, award conditions and land-use restrictions. This lesson teaches you to separate those issues before selecting an appraisal basis or calculating a development return.

The chapter develops the land-registration, family-property and development-law lessons into the agrarian framework. You will compare retention and awards, investigate agricultural leasehold, read CLOA and EP evidence, apply the debt-condonation update and distinguish zoning reclassification from conversion. Worked calculations show how area, rental references, proceeds obligations and timing fit the legal inquiry.

All properties, examples, maps, cases, worksheets and questions are newly authored study material. Malaya Farm, Sampaguita Parcel and Riverbend Estate are fictional. Numerical inputs are supplied teaching assumptions. Statutory and selected court sources are listed at the back; current detailed DAR filing procedures and unconfirmed 2027 examination requirements are expressly identified for further checking.

Your learning goals

- Read the agrarian legal history and identify the applicable award regime.
- Distinguish classification, agricultural use, coverage and acquisition exceptions.
- Separate five-hectare retention, conditional child awards and beneficiary ceilings.
- Investigate agricultural tenancy or leasehold from complete evidence.
- Apply checked amended rental, sale and dispossession concepts.
- Read agrarian-title restrictions and collective-award interests.
- Explain qualifying RA 11953 condonation and preserved restrictions.
- Distinguish reclassification, conversion and exemption or exclusion.
- Read partial conversion orders and implementation conditions.
- Separate actual agricultural value from conditional development scenarios.
- Recognize the specific agrarian just-compensation assignment and judicial role.
- Document remaining current administrative and 2027 verification tasks.

Study plan: Allow four to five hours in two sessions. Study sections 1–9 on agrarian rights first, then sections 10–16 on conversion and valuation. Draw the evidence map, complete the ten worked cases and worksheet, and answer twenty questions before consulting the explanations.

1 Start with the legal history of the land

Agricultural land can have valuable road frontage and strong demand for commercial use while still being subject to agricultural tenure, agrarian coverage or an award restriction. An appraisal must identify the actual interest and lawful use before pricing the development idea. A buyer's plan to build shops is not evidence that the land may already be used for shops.

The fictional Harana group considers three properties. Malaya Farm is an ordinary privately owned agricultural holding with a cultivator on the site. Sampaguita Parcel is described as former CLOA land and has a proposed commercial zoning classification. Riverbend Estate has a pending conversion application and a developer's subdivision sketch. These descriptions raise different inquiries. None is a sufficient legal opinion about sale, possession or development.

Build a chronology: original title or grant, agricultural use, tenancy evidence, coverage notice, retention or exemption decision, award and registration, payments or condonation, transfers, reclassification, conversion and project approvals. Each date should be tied to a document and an affected parcel. A chronology assembled only from the seller's recollection can miss the event that controls the rule.

Agrarian legislation also concerns people. Identify the owner, agricultural lessee, farmworker, awardee, heir, cooperative and prospective buyer separately. They can hold different rights over the same land. A deed signed by the registered owner does not necessarily erase protected tenure, and a person physically working on the land is not automatically its legal owner or agricultural tenant.

Your objective as an examinee is to recognize the controlling issue and the evidence needed to answer it. Your objective as an appraiser is to value the established interest within the assignment, disclose material unresolved matters and obtain appropriate legal or technical assistance. You are not being asked to decide every agrarian dispute from an inspection photograph.

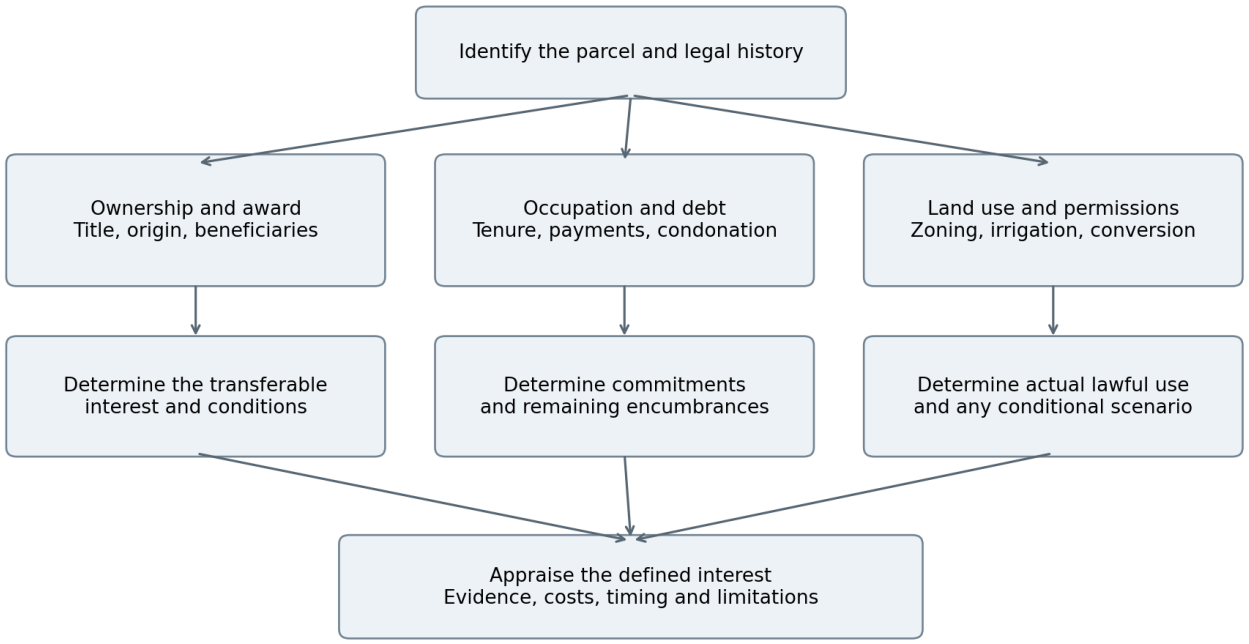


Figure 16.1 Original agrarian evidence map. The branches organize parallel inquiries; resolving one does not automatically resolve the others.

2 Read the agrarian laws as a sequence

RA 3844 established the agricultural leasehold framework and related rights. RA 6389 amended important provisions, including leasehold, rent and dispossession rules. PD 27 addressed tenant-farmers on private rice and corn lands under its specified arrangements. RA 6657 established the wider comprehensive agrarian reform framework. RA 9700 extended and amended that framework, and RA 11953 introduced qualifying debt condonation and related relief. [1–6]

Do not combine numbers from these laws without identifying the regime. PD 27's historical family-farm and retention figures are not the ordinary CARL retention rule. RA 6657's original beneficiary amortization language is not a complete description of a covered loan after RA 11953. An original online statute is a useful primary source, but it can be an unconsolidated historical text.

PD 27 applies to the described tenant-farmers of private land primarily devoted to rice and corn. Its original text describes family-size farms of five hectares if unirrigated and three if irrigated, and a conditional seven-hectare landowner retention. These are regime-specific historical provisions. Determine award origin and later applicable rules before applying them to a transaction. [3]

Under the ordinary CARL framework, the retention reference is five hectares, while the beneficiary award ceiling is generally three hectares. Three hectares for a qualified child under section 6 is a conditional award concept, not an automatic addition to the parent's unrestricted ownership. Statutory qualifications, actual holdings and the relevant determination matter. [1–2]

The CARPER timetable also does not mean every agrarian obligation ceased when a statutory acquisition phase date passed. RA 9700 section 30 provides for qualifying pending cases or proceedings at 30 June 2014 to continue to finality. Existing awards, tenure, disputes and conversion rules must still be investigated. A date in an old implementation schedule is not a blanket release of every parcel from agrarian law.

Framework	Core study role
RA 3844 with RA 6389	Agricultural leasehold and amended rights
PD 27	Specified rice/corn tenant-farmer regime
RA 6657 with RA 9700	Comprehensive coverage, retention, awards and conversion
RA 11953	Qualifying debt relief with restrictions preserved
RA 7160 section 20	Local reclassification within its statutory scope

3 Distinguish classification actual use and coverage

Public-domain land classification, local zoning and agricultural actual use answer different questions. A forest-land classification does not become privately transferable agricultural land because the site has crops or an agricultural tax declaration. A local commercial zoning designation does not by itself prove a valid conversion of agricultural land. A title description also needs to be read with the relevant legal history and official records.

CARL covers public and private agricultural lands within its statutory framework, subject to qualifications and exclusions. RA 9700's amended section 4 excludes landholdings of landowners with a total area of five hectares and below from acquisition and distribution to qualified beneficiaries. That does not declare every

such parcel exempt from agricultural leasehold, use conversion, ownership restrictions or other applicable law. [2, sec. 3]

Aggregate holdings matter. An owner with three hectares in one location and four elsewhere cannot establish the five-hectare acquisition-and-distribution exception by pointing only to the smaller parcel. Verify the owner and total relevant landholdings, including issues of direct and indirect ownership. Subdividing one holding into smaller titles does not automatically eliminate the legal inquiry.

Likewise, the absence of a tenant is not a universal exemption from CARP coverage. The comprehensive law is broader than a rule applying solely to tenanted rice and corn land. Distinguish whether the question concerns coverage and acquisition, a leasehold relationship, award qualification or conversion jurisdiction. One fact can be relevant to one issue without deciding the others.

A roadside strip may have a different physical suitability from the interior farm. However, treating it as a separate commercial valuation zone still requires evidence of the legal parcel or interest, access, permitted use and market support. A surveyor's proposed subdivision line does not create all required land-use permissions or eliminate the rights of existing users.

4 Retention beneficiary qualification and award size

Section 6 of RA 6657 supplies the ordinary five-hectare retention reference with stated exceptions and qualifications. It addresses the choice of a compact or contiguous retention area and the tenant's options where retained land is tenanted. Retention is therefore not merely a spreadsheet operation subtracting five from the holding area. Identify the recognized area and the rights that remain. [1]

The child-award provision describes three hectares for a child at least fifteen years old who is actually tilling or directly managing the farm. The qualifications must be established; being the owner's child alone is insufficient. A child award and landowner retention are different legal categories, even when both affect the area potentially available for redistribution.

Under amended section 25, the general beneficiary award ceiling is three hectares, which may consist of one tract or several parcels cumulated to the limit. Collective ownership has its own conditions and documentation. A twelve-hectare collective title listing four qualified beneficiaries does not necessarily give each a legally identified, separately transferable three-hectare physical parcel. [2, sec. 10]

For a simple teaching holding of twelve hectares with a recognized five-hectare retention and no other relevant exclusions or awards, the arithmetic leaves seven hectares. Call that the remaining area under the supplied assumptions, not a final DAR acquisition decision. If access, improvements or tenants are unevenly distributed, the economic consequences require more than the subtraction.

A beneficiary already owning 1.2 hectares illustrates the distinction between a ceiling and an automatic award. The arithmetic difference to three hectares is 1.8 hectares. Actual entitlement still depends on qualification, priority, available land and the applicable official determination. Never describe every resident below three hectares as automatically entitled to the balance.

Statutory concept	Ordinary reference	Essential condition
CARL retention	5 hectares	Applicable regime, recognized area and exceptions
Beneficiary award	3 hectares	Qualification, cumulative holdings and award process
Qualified child award	3 hectares	At least 15 and actually tilling or managing
PD 27 original figures	Regime-specific	Do not replace CARL figures without the legal basis

5 Establish tenure from facts rather than labels

Agricultural lessees, hired laborers, caretakers and tolerated occupants are not interchangeable categories. The agricultural relationship depends on its legal and factual elements. Supreme Court decisions require evidence of the parties' relationship, agricultural subject and purpose, consent, personal cultivation and the relevant harvest-sharing or lease consideration. Consent can be express or implied; the absence of a document called tenancy agreement is not conclusive. [4–5; 10]

Ask how the cultivator was installed, who directs the farming, who bears production inputs, who works the land and what is paid or delivered to whom. Examine receipts, crop records, agreements, testimony and relevant DAR records. Payment of wages can support an employment characterization, while fixed agricultural lease consideration supports a different inquiry. No single label should replace the complete evidence.

The six-element formulation in many tenancy cases uses sharing of harvests. Read it with the recognized agricultural leasehold arrangement involving a price certain or ascertainable in produce or money. Do not conclude that a fixed-rent lessee cannot have protected agricultural tenure merely because the payments are not a variable fifty-fifty crop split.

For Malaya Farm, the seller calls the resident a caretaker. The resident supplies annual harvest receipts showing payments to the owner and says the arrangement has lasted fifteen years. This warrants investigation of agricultural tenure; it does not allow the appraiser to certify either tenancy or its absence from the word caretaker. Record the contradictory evidence and obtain a proper determination if material.

The physical inspection remains useful. It can show active crops, houses, access, irrigation and occupation. But physical findings do not determine consent, the full payment arrangement or legal entitlement. Distinguish what you observed, what a party asserted and what an authoritative document establishes.

6 Leasehold rights survive ordinary changes in ownership

RA 3844 section 10 provides that the agricultural leasehold relationship is not extinguished by expiry of a stated period or by sale, alienation or transfer of legal possession; the succeeding acquirer is substituted to the lessor's rights and obligations. A purchaser's expectation of vacant possession therefore needs evidence beyond a signed deed. Protected tenure is a different inquiry from the registry owner. [4]

The amended provisions concerning pre-emption and redemption give agricultural lessees relevant rights in a sale situation, with notice and procedural conditions. RA 6389 describes the relevant 180-day periods from the specified written notices, along with conditions affecting the running of time. Do not use a generalized thirty-day rule copied from a different Civil Code redemption situation. [5, sec. 2]

Dispossession needs lawful grounds and process. The original RA 3844 text includes personal cultivation by the owner, but RA 6389 amended the provision and removed that ground in its amended framework. A current study answer should not quote the old paragraph without the amendment. Actual older disputes can raise temporal application questions; the facts and relevant dates matter. [5, sec. 7]

An agricultural tenant's protection is not identical to an urban residential renter's lease. A contract clause saying the farmer will leave immediately when the land is sold cannot automatically override statutory protection. Similarly, a private disturbance payment cannot be assumed to cure every defect in an unlawful eviction or conversion. Verify the right, authorized process and applicable compensation.

For the ground described in the amended section 36(1), RA 6389 states disturbance compensation as five times the average gross harvests during the five preceding calendar years. This differs from the original wording based on rental. If the exercise stipulates that the amended ground applies and gives an average gross harvest equivalent of PHP 200,000, five times gives PHP 1 million. Establish the qualifying legal ground and current applicable procedure before treating that arithmetic as an actual payable award.

For appraisal, separate the owner's interest subject to tenure from an assumed vacant-possession interest. If the assignment specifically asks for a special assumption that tenancy has lawfully ended, identify the changed premise and avoid presenting it as the actual condition. Use relevant market evidence for each interest rather than an arbitrary tenant discount.

7 Calculate the agricultural lease reference carefully

RA 3844 section 34 as amended by RA 6389 addresses a rental ceiling of twenty-five percent of the relevant average or estimated normal harvest after specified deductions. The base concerns the prescribed preceding agricultural years and includes deductions for seed and applicable harvesting, threshing, loading, hauling and processing. It is not automatically twenty-five percent of gross sales or net farm business profit. [5, sec. 5]

Suppose the stipulated relevant average normal harvest is valued at PHP 240,000, and the prescribed equivalent deductions total PHP 60,000. The net statutory teaching base is PHP 180,000. Twenty-five percent gives PHP 45,000. This exercise supplies consistent peso equivalents so the units match. An actual determination requires the relevant crop, normal-harvest evidence, deductions and official treatment.

Do not add every business expense to the statutory deduction list without authority. An owner's loan interest or a general administration charge is not automatically one of the specified harvest deductions. Conversely, using gross harvest and ignoring the listed deductions overstates the teaching reference. Show the base before multiplying by the percentage.

The landowner's lease receipts and an owner-operated farm's net business income are separate streams. A farm operator's income can include labor, management, machinery and crop risk that a passive land interest does not provide. Capitalizing the whole operation's profit as though it were pure land rent can materially distort land value.

Where improvements increase production, or there are fewer than three normal harvest years, the amended rule has further provisions. This lesson teaches the stated normal-harvest exercise rather than certifying every crop's current rent. Use the operative DAR determination and complete facts for an actual lease arrangement.

8 Read a CLOA or EP through the chain of award

A Certificate of Land Ownership Award, or CLOA, and an Emancipation Patent, or EP, identify agrarian-origin rights. They should not be treated as ordinary titles stripped of award conditions. Read the award, registration,

beneficiary identity, annotations, subsequent transfers and official records together. The original regime and transaction date can affect the applicable rule. [1–3]

Amended section 27 extends its transfer wording to lands acquired under CARL or other agrarian laws. During the stated ten-year period, the exceptions include hereditary succession, transfer to government or LBP, or to other qualified beneficiaries through DAR. The section also addresses unpaid land and prior DAR approval for specified transfers. A prospective developer is not automatically a qualified agrarian transferee merely because it can pay cash. [2, sec. 12]

Expiry of a stated restriction period is one fact to verify, not a complete clearance. Investigate the controlling start date, registered award, payment or applicable condonation, required approval or clearance, purchaser qualification, aggregate holdings, actual use and outstanding cases. Do not measure the period only from the date someone physically occupied the farm or began paying taxes.

Subsequent transfer titles must retain the agrarian-origin identification required by the amended provision. A newer-looking TCT does not necessarily remove the history. A seller's statement that the title has been cleaned requires scrutiny of the actual annotations and source documents. Registry verification should be paired with DAR information where material.

If the awardee died, hereditary succession is relevant, but identify the actual heirs, estate settlement and authority to convey. Permission for succession does not establish that one heir can sell the entire land without the others. Carry forward the ownership and representation checks from Lesson 13.

Collective titles require particular care. Identify listed beneficiaries, the legal ownership arrangement, pending parcelization and the approved survey. A private sketch assigning blocks among members does not by itself produce individually titled sale parcels. Parcelization for individual agrarian titles is also not the same as approval of a commercial residential subdivision.

9 Debt condonation under RA 11953

RA 11953, the New Agrarian Emancipation Act, addresses qualifying agrarian debt, including covered principal and related charges, and provides mechanisms for the identified government and direct-payment arrangements. Its scope depends on the beneficiary, award and indebtedness conditions. A newspaper statement that debts were erased is not complete evidence for a specific title and loan account. [6, secs. 2–4]

The Act provides for certificates or notices of condonation and title annotation, and for lifting the qualifying mortgage liens in favor of the National Government represented by LBP. Obtain the actual documents and reconcile them with the loan ledger and registry entries. A private crop-production loan, a disputed personal debt or another encumbrance is not automatically covered merely because the borrower is an agrarian beneficiary.

Most importantly, section 11 expressly preserves existing limitations on transfer, ownership and agricultural use, and the landowner's right to just compensation. Condonation is financial relief, not a universal conversion order or unrestricted sale authority. A debt-free awarded farm can still require transfer and land-use checks.

The Act also excludes the awarded land from the beneficiary's gross estate for estate-tax purposes. It encourages local tax amnesty through LGU action; that is not the same as a blanket automatic cancellation of all local real property and transfer taxes. Apply the relevant provisions and implementing requirements rather than saying all taxes vanish. [6, sec. 7]

Restoration of awards forfeited solely for specified nonpayment and the disqualification provisions also require careful reading. The statutory relief does not automatically cure every invalid transfer, abandonment finding or

other legal violation. Distinguish the specific reason for the earlier adverse action and whether the relevant conditions are established.

For an appraisal file, keep four separate entries: the qualifying debt status, the title annotation or lien status, the transfer restrictions and the permitted use. Resolution of one should not cause the other three to be marked resolved without evidence.

Question	What condonation does not decide
Debt is relieved	Whether every private lien is discharged
Title annotation completed	Whether a proposed buyer and transfer qualify
Transfer period passed	Whether the actual use may change
Estate-tax treatment applies	Whether local tax amnesty was enacted

10 Reclassification conversion exemption and exclusion

Reclassification identifies how land is allocated for specified uses within the planning framework. Conversion authorizes a change in actual use through the applicable legal process. An exemption or exclusion determination addresses whether land falls outside specified coverage or conversion requirements on its legal basis. These are distinct decisions, not different names for one permit. [7–8]

The Supreme Court distinguishes agricultural land lawfully reclassified before CARL's 15 June 1988 effectivity from reclassification on or after that date. The historic pre-effectivity inquiry needs the actual valid ordinance or other basis, its approval and the parcel's coverage. A present-day zoning certificate repeating an alleged old classification is not necessarily complete evidence of the historic legal act. [8]

For post-effectivity agricultural land, local reclassification alone does not establish authority to change actual use. The Court also explains that DAR conversion authority is not confined simply to parcels already awarded under CARP. A small ordinary private agricultural parcel can still raise conversion questions even where it is not to be acquired and distributed.

Exemptions and exclusions must be grounded in the operative law and actual facts. CARL's original exemption list has amendments, including RA 7881's fishpond and prawn-farm provisions. Do not assume every original 1988 commercial-farm category remains unchanged or that an owner can create an exemption by starting an unauthorized new use after coverage. [9]

Forest classification, protected areas, ancestral domains, agricultural safeguards and sector-specific restrictions may also require separate evidence. A DAR-related determination does not automatically confer a private land title or remove every other legal restriction. The appropriate agencies and legal basis depend on what right and use are being claimed.

11 Local reclassification has its own limits

RA 7160 section 20 requires an ordinance and public hearings and describes the economic circumstances for local agricultural reclassification. Its stated limits use the total agricultural land area at the time of ordinance passage: fifteen percent for highly urbanized and independent component cities, ten percent for component

cities and first- to third-class municipalities, and five percent for fourth- to sixth-class municipalities in the historical statutory wording. [7]

These percentages are not percentages of a particular owner's parcel. If the question supplies a qualifying ten-percent category and 2,000 hectares of total agricultural area, the ordinary ceiling reference is 200 hectares. A proposed five-hectare reclassification must be evaluated against the locality's applicable limits and prior use of its allocation; multiplying five by ten percent would answer the wrong question.

The section provides a route for presidential authority above the stated limits under specified conditions. It also expressly protects CARL and directs the conversion of distributed agrarian land to section 65. A local council's resolution cannot be assumed to release award restrictions or supply DAR authority.

Current income classification needs updating rather than copying an old municipal class label. RA 11964 establishes a revised five-class framework and periodic classification. This lesson quotes the section 20 bands as statutory wording, not as a certification that an actual municipality retains a 1991 or pre-2023 income class. Use the current classification schedule and applicable legal interpretation for an actual ordinance. [11]

The CLUP and zoning ordinance are also different from a site-specific project permit. Read the map, ordinance text, zone boundaries, allowed or conditional uses, setbacks and other controls. A map color cannot replace the full legal provisions, and an allowed use cannot replace required conversion, environmental or building approvals.

Decision	What it addresses	What it does not replace
Reclassification	Planning allocation of land use	Applicable DAR conversion
Conversion	Authorized actual-use change	Every project permit or selling license
Exemption or exclusion	Specific legal coverage/status issue	Ownership and all other restrictions
Debt condonation	Qualifying agrarian financial relief	Transfer and agricultural-use limitations

12 Conversion of awarded land under section 65

Section 65 as amended by RA 9700 describes application after five years from award under its stated economic or urbanization conditions, due notice and DAR authority. It includes the specified beneficiary or owner of a retained tenanted area, the investment of at least ten percent of qualifying conversion proceeds in government securities for the beneficiary case, and payment provisions. Read the provision with later relief such as RA 11953 where applicable. [2, sec. 22]

Five years here is not the ten-year transfer period. The two numbers address different legal inquiries. Neither means automatic approval on the anniversary date. A beneficiary's conversion application can have questions distinct from the validity of a proposed transfer, and financial relief does not erase the preserved use restrictions.

The amended statute states that irrigated and irrigable lands shall not be subject to conversion. A dry field at inspection does not establish that it is outside those legal categories. Obtain irrigation status, relevant agency records and the controlling factual and legal determination. Temporary disuse of a canal is not a substitute for checking the restriction.

The amended section also addresses failure to implement the conversion plan within five years from approval and violation of conversion-order conditions due to the applicant's fault, with the stated consequence of CARP coverage. A conversion order is therefore not a blank check to hold the land indefinitely under any alternative plan. Track the permitted use, area, implementation terms and relevant deadlines.

The ten-percent government-securities requirement uses qualifying proceeds, not automatically the appraised value of the whole parcel or the selling revenue of an entire later project. For a stipulated relevant proceeds base of PHP 4 million, ten percent gives PHP 400,000. The real account and operative requirements must establish the applicable base and treatment before using that calculation outside the exercise.

Number	Statutory inquiry	Avoid this shortcut
10 years	Transfer restriction wording	Universal unrestricted sale thereafter
5 years from award	Section 65 conversion conditions	Automatic permission on anniversary
5 years from approval	Conversion implementation condition	Indefinite approval for any project
10% proceeds	Stated beneficiary securities obligation	Apply to an unrelated value or revenue
25% harvest base	Amended agricultural lease reference	Apply directly to gross business sales

13 Examine the conversion order and the development approvals

Do not stop at the page headed approved. Verify the issuing authority, parcel and area, approved use, order date, conditions, finality or challenges and implementation status. Match the technical description to the title and survey. A partial conversion of a roadside portion does not necessarily authorize the same use on the entire farm.

A three-hectare parcel with an order covering 0.8 hectare illustrates the distinction. The authorized portion is 8,000 square meters. The remaining 22,000 square meters needs its own status analysis. A single commercial rate applied to all 30,000 square meters would ignore the legal and physical difference unless the assignment expressly uses a supported special assumption.

DAR administrative procedures have developed through the comprehensive 2002 rules and later 2019 and 2021 issuances. The official FOI record identifies the 2021 amendment family. This lesson does not certify a current exhaustive checklist, approval delegation, fee or processing deadline from an unread administrative attachment. Retrieve the applicable current rules and project-specific order for those details. [12]

Environmental clearance, drainage and access approvals, subdivision authorization and building permissions remain separate. A conversion order does not itself guarantee a license to sell under PD 957, a lawful road connection or a buildable footprint. Carry forward Lesson 14's project evidence checks when the proposed use is housing.

For a transaction, the buyer may negotiate conditions precedent tied to verified permissions, title and possession. The appraiser should describe the actual contract circumstances when relevant to evidence. A promised future approval affects the transaction's risk and timing; it is not equivalent to an approval already effective at the valuation date.

14 Agricultural value development scenarios and timing

Value the defined agricultural interest using relevant evidence of rights, location, productivity, access, water, tenure and market transactions. Crop yield can help explain economic utility, but farm business earnings must be separated from the land interest. Account for labor, management, equipment and other components rather than assuming all profit belongs to land.

An ordinary agricultural comparable and a lawfully converted commercial parcel are not automatically direct substitutes. Adjustments or a development analysis require evidence concerning the different permitted uses, costs and timing. The fact that both front the same highway does not eliminate conversion, access and project-approval differences.

Keep the actual-condition opinion separate from a conditional development scenario. An approved-conversion scenario may be useful if appropriately specified as an assumption, but the report should not imply that an unapproved development is presently lawful. A prospective opinion also differs from assuming an altered present condition. Identify the basis, date and changed premise as taught in Lesson 9.

Suppose a hypothetical completed-use receipt of PHP 12 million is due in two years, with PHP 3 million of stipulated costs paid today and a supplied twelve-percent annual discount rate. Present value of the receipt is PHP 12m ÷ 1.12 squared = PHP 9.566m. The simplified net scenario amount is PHP 6.566m. This model excludes other relevant costs and approval uncertainty unless expressly supplied; it is not a full market-value conclusion.

Adding a probability can help explore a sensitivity scenario, but a guessed approval percentage is not market evidence or a legal prediction. If a question supplies a probability and alternative outcomes, explain the expected-value calculation as a teaching scenario. For an appraisal, justify how market participants price uncertainty and avoid counting the same risk in a probability, discount rate and separate deduction.

15 Agrarian just compensation is a specific assignment

An appraisal for a proposed private sale is not identical to evidence for statutory agrarian just compensation. The amended section 17 identifies relevant acquisition cost, standing crops, comparable properties, nature, use, income, owner valuation, tax declarations and assessment, among other considerations. Applicable valuation formulas, inputs and taking dates require the governing rules and judicial context. [1–2]

The Special Agrarian Court has the statutory role in final determination of just compensation under section 57. An administrative valuation, a landowner's asking price and a court determination are different records. The appraiser should identify the purpose, parties, applicable methodology and date rather than inserting a general commercial-comparable rate into every compensation problem.

Amended section 17 includes seventy percent of BIR zonal valuation among the specified considerations, translated into a basic formula by DAR and subject to the proper court's final decision. Do not interpret that factor as a universal automatic compensation amount. A complete current formula exercise must supply or verify the operative DAR/LBP methodology and the factual inputs. This lesson does not invent a prescribed formula from memory.

Crop values and improvements can also be double-counted. If the comparable rate already includes mature trees and irrigation, adding the same improvements again requires justification. If the assignment values land and business separately, reconcile the components. An accurately measured hectare figure cannot rescue a model that values the wrong interest or uses unsupported productivity assumptions.

Administrative agrarian matters, tenancy disputes, title cancellation and just compensation do not all go to one interchangeable office. RA 9700's amended section 24 places the specified registered agrarian-title cancellation cases in the DAR Secretary's exclusive original jurisdiction. Forum, dates and governing procedure need legal analysis. An appraisal report should state unresolved matters without pretending to issue the adjudication. [2, sec. 9]

16 Build a complete evidence and revision file

For Harana's three properties, assemble a parcel-specific legal history, survey and site record, tenure file, payment or condonation evidence, planning record and any conversion order. Record which evidence is verified, which is supplied and which is unresolved. Do not let a clear tax receipt outweigh an unresolved award or tenure question merely because the receipt is easy to obtain.

An evidence matrix can be compact: issue, document, date, parcel coverage, decisive condition and valuation consequence. Use it to plan specialist input. Legal advice addresses rights and permission; a geodetic survey addresses identity and measurement; agricultural and engineering input supports productivity, irrigation and development works. The appraiser integrates relevant evidence into the defined valuation task.

For examinations, first classify the issue as coverage, retention, leasehold, awarded-land transfer, debt relief, reclassification, conversion or valuation. Then write the controlling source and condition. Distinguish the ordinary five-hectare retention reference, three-hectare award ceiling, ten-year transfer wording, five-year conversion conditions, twenty-five-percent lease reference and ten-percent conversion-proceeds requirement.

The most serious trap is answering a permissions question with arithmetic. A passed anniversary, positive development margin or attractive commercial asking price does not supply an approval. Equally, discovering an unresolved issue does not prove zero value. State the actual interest, evidence and limitations and use supportable methods.

The following cases and test develop these distinctions using supplied facts. They do not certify the status of an actual titled farm or an official 2027 examination weight. Keep the statutory source notes and administrative update tasks in your revision file. Lesson 17 develops planning and development controls more broadly.

17 Ten worked agrarian cases

Attempt each question first. Identify the regime, document, condition and interest before any arithmetic. The facts and rates are supplied assumptions; the cases do not determine the status of an actual farm or title.

Case 1 Look beyond the parcel size

Question: A seller owns an agricultural three-hectare parcel and another four-hectare holding. He says the first is outside acquisition and distribution because it is below five hectares.

Solution: The stipulated total is seven hectares. RA 9700's amended section 4 speaks of the landowner's total area of five hectares and below, so looking at the first parcel alone does not establish that exception. [2]

Reasoning: Coverage, recognized retention and other exclusions still require determination. Even an established acquisition exception would not automatically eliminate leasehold or conversion questions.

Case 2 Retention arithmetic is not adjudication

Question: A twelve-hectare teaching holding has a recognized five-hectare retention. There are no other relevant exclusions or awards in the exercise. Calculate the remaining area.

Solution: 12 − 5 = 7 hectares, or 70,000 sq m. This is the remaining area under supplied facts, not a final acquisition or beneficiary-allocation decision.

Reasoning: Identify the actual retained location and tenure. A three-hectare child award is conditional and should not be added merely because the owner has children. [1–2]

Case 3 A cultivator or a caretaker

Question: The resident called a caretaker personally grows crops, supplies harvest-payment receipts and asserts consent by the owner. No written tenancy agreement is shown.

Solution: Investigate the legal relationship and complete elements. Absence of a written document is not conclusive because agricultural leasehold can arise in the statutory manner and orally, expressly or impliedly. [4; 10]

Reasoning: Record crop, payment, consent and cultivation evidence. Do not certify either tenancy or its absence solely from the label, receipts alone or an inspection.

Case 4 Compute the lease reference

Question: The relevant average normal harvest is supplied in consistent peso equivalents as PHP 240,000. Specified seed and applicable postharvest deductions total PHP 60,000. Apply the stated 25% teaching ceiling.

Solution: Base = PHP 240,000 − PHP 60,000 = PHP 180,000. Reference = PHP 180,000 × 25% = PHP 45,000. [5, sec. 5]

Reasoning: Do not multiply gross harvest by 25% or deduct unspecified business costs. Verify the actual normal-harvest period and official rental determination outside the exercise.

Case 5 Ten years and condonation

Question: The file stipulates that the applicable ten-year restriction period has elapsed and qualifying debt condonation is documented. The buyer says the farm can immediately become shops.

Solution: Those facts do not supply conversion or all transfer clearance. RA 11953 expressly preserves limitations on transfer, ownership and agricultural use. Verify title, tenure, approvals, qualification and the actual use status. [2; 6, sec. 11]

Reasoning: Distinguish financial relief from permitted land use. The expiry fact is supplied for this exercise rather than determined from a seller’s recollection.

Case 6 Commercial zoning without conversion

Question: A valid 2020 ordinance reclassifies agricultural land for commercial use. The seller supplies no applicable DAR conversion or exemption determination.

Solution: Reclassification alone does not establish authority to change actual use. Investigate the applicable conversion process and legal status before valuing the entire parcel as already lawfully commercial. [7–8]

Reasoning: The date is after 15 June 1988. A drawing or zoning certificate does not replace the site-specific agrarian inquiry or other project permissions.

Case 7 Use the locality's denominator

Question: The question stipulates a qualifying 10% section 20 category and 2,000 hectares total agricultural area at ordinance passage. Compute the ordinary reference ceiling and compare a five-hectare request.

Solution: Reference ceiling = 2,000 × 10% = 200 hectares. Five hectares is 0.25% of the supplied denominator, but remaining capacity and the full ordinance conditions must be checked. [7]

Reasoning: This does not grant conversion. Current municipal classification and any special authority also require evidence for an actual case.

Case 8 Read a partial conversion

Question: A three-hectare title has an effective order approving the stated use on 0.8 hectare only. Find authorized and remaining areas.

Solution: Approved portion = 8,000 sq m. Remaining portion = 22,000 sq m. Total = 30,000 sq m. Match the order's technical description, use and conditions to the survey.

Reasoning: A single nonagricultural rate applied to all three hectares is unsupported without further evidence or an expressly stated special assumption. Conversion does not itself grant subdivision selling or building authority.

Case 9 Different five-year and ten-year rules

Question: A beneficiary says five years from award authorizes sale to anyone, while another says ten years authorizes conversion automatically. Correct both.

Solution: The five-year wording in amended section 65 addresses conversion under specified conditions and approval. The ten-year wording in section 27 addresses transfer restrictions and exceptions. Neither anniversary is automatic permission for every proposed act. [2]

Reasoning: Keep separate records for transfer, debt, tenure, actual use and approval. Irrigated or irrigable status and order implementation conditions also matter.

Case 10 Price a delayed scenario honestly

Question: A supplied conditional development receipt is PHP 12m in two years. Costs of PHP 3m are paid today. Use a supplied 12% annual discount rate, with other effects excluded.

Solution: Receipt PV = PHP 12m ÷ 1.12^2 = PHP 9,566,326.53. Simplified scenario net = PHP 6,566,326.53. If receipt slips to year three, net becomes PHP 5,541,362.97.

Reasoning: The extra-year timing difference is PHP 1,024,963.56. This is a stipulated sensitivity model, not approval probability, legal damages or a complete current market-value opinion.

18 Agrarian rights and conversion worksheet

Suggested time: 45 minutes. Show the statutory base, units and calculations. Use the lines for key points and a separate sheet for full responses. This is an original study aid, not an official DAR application or title-clearance form.

1 Build the chronology

Sampaguita Parcel is described as former CLOA land with commercial zoning. List the dates and records needed for award origin, registration, debt or condonation, transfers, tenure and proposed use.

_____

_____

_____

2 Separate retention and award

A stipulated fifteen-hectare holding has five hectares of recognized retention and no other relevant exclusions. Calculate the remaining area. Explain why a child's name alone does not create a three-hectare award.

_____

_____

_____

3 Investigate agricultural tenure

A resident is called a caretaker, but grows crops and pays a fixed amount to the owner. Identify the evidence needed and explain why neither the label nor absence of variable crop sharing settles the issue.

_____

_____

_____

4 Calculate the lease reference

Relevant average normal harvest is supplied as PHP 300,000 in consistent equivalents. Specified deductions are PHP 80,000. Compute the 25% reference and distinguish it from net farm-business income.

_____

_____

_____

Agrarian worksheet continued

5 Check condonation and taxes

A qualifying condonation certificate is supplied. Explain which mortgage-lien relief is relevant, what restrictions remain and why local taxes are not automatically all cancelled.

_____

_____

_____

6 Read a partial order

A four-hectare property has a conversion order over 1.25 hectares for a stated use. Calculate converted and remaining square meters and name four conditions or further permissions to check.

_____

_____

_____

7 Calculate proceeds and delay

The exercise stipulates qualifying conversion proceeds of PHP 5m for the stated beneficiary obligation. Compute 10%. Separately, discount a PHP 10m receipt due in two years at a supplied 10% rate and subtract PHP 2m costs paid today.

_____

_____

_____

8 Distinguish valuation and adjudication

Explain why a private-sale appraisal, an administrative compensation valuation and a final just-compensation determination differ. State which current administrative details need primary-source verification before an actual conversion filing.

_____

_____

_____

19 Review and examination checks

Question	Essential distinction
Which law and date?	Award origin and transaction history govern the inquiry
Below five hectares?	Total holding and acquisition exception differ from all-law exemption
Which three hectares?	Beneficiary ceiling differs from a conditional child award
Who works the land?	Tenant, lessee, employee and caretaker need evidence
Was the land sold?	Protected leasehold is not ended solely by sale
What is the rental base?	Amended normal harvest less specified deductions
Has ten years elapsed?	Period alone is not complete transfer or use clearance
Was debt condoned?	Financial relief preserves specified restrictions
Was zoning changed?	Reclassification and actual-use conversion differ
Does the order cover all land?	Read area, use, conditions and implementation
What does the model measure?	Agricultural interest and conditional development scenario differ
Who determines compensation?	Specific statutory methodology and court role matter

A reliable situational answer

Classify the issue, identify the source and date, name the condition and request the decisive evidence. For numbers, write the denominator and units before multiplying or subtracting. For valuation, name the actual interest and separate any changed premise or future-date scenario.

Keep an error log under coverage, retention and awards, leasehold, transfers, condonation, conversion and valuation. Change a fact in a missed question: add another holding, replace a hired worker with a proven lessee, or reduce a conversion order to part of the land. Explain why the conclusion changes.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These are newly authored learning exercises, not actual, recalled or reproduced PRC questions. Use the supplied regime, dates, legal conditions and numerical assumptions.

1. Which record best supports an appraisal chronology for former awarded land?

A. Only the newest tax receipt

B. Only a road-frontage photograph

C. Award title registry and official agrarian records tied to the parcel

D. Only the seller's recollection

2. The ordinary CARL landowner retention reference is what?

A. Five hectares, subject to applicable qualifications and exceptions

B. Seven hectares for every modern case

C. Three hectares of automatic child retention

D. Unlimited area if the owner subdivides the titles

3. Under the amended CARL framework, the general beneficiary award ceiling is what?

A. Five hectares for every beneficiary

B. Seven hectares

C. No ceiling for individual awards

D. Three hectares, subject to the governing provisions

4. A landowner owns agricultural parcels of three and four hectares. Which inference is sound?

A. Each parcel proves the total-area exception separately

B. The seven-hectare total must be investigated

C. All tenure and conversion laws disappear

D. Any parcel division creates unrestricted ownership

5. A child is seventeen but neither tills nor directly manages the farm. What is missing from the stated child-award provision?

A. The owner's advertising price

B. The tilling or direct-management qualification

C. A broker's commission

D. A commercial zoning color only

6. A hired person is called a caretaker. What best establishes the legal relationship?

A. The word caretaker always settles it

B. A single photo settles it

C. No writing means no agricultural leasehold

D. The complete cultivation consent and consideration evidence

7. A fixed agricultural rental is paid instead of a variable harvest split. Which is best?

A. Protected agricultural leasehold still requires investigation

B. Agricultural tenure is impossible

C. The cultivator automatically owns the land

D. The land becomes commercial

8. What does a sale ordinarily do to an established statutory agricultural leasehold relationship?

A. Automatically extinguishes it

B. Cancels it after a broker's notice

C. Does not alone extinguish it; the acquirer takes the applicable obligations

D. Transforms it into an ordinary monthly apartment lease

9. Which amendment must be read before treating owner personal cultivation as a present dispossession ground?

A. RA 6389's amendment to section 36(1)

B. The unit-owner voting law

C. The REIT dividend provision

D. Only the property tax receipt

10. Normal-harvest equivalent is PHP 240,000 and prescribed deductions PHP 60,000. What is the supplied 25% lease reference?

A. PHP 60,000

B. PHP 15,000

C. PHP 180,000

D. PHP 45,000

11. The applicable ten-year transfer period is stipulated as elapsed. Which additional matter remains?

A. No other issue can remain

B. Conversion is automatic

C. Title payment or condonation tenure and applicable transfer/use requirements

D. Every buyer becomes a qualified beneficiary

12. RA 11953 qualifying debt condonation does what concerning existing use and transfer restrictions?

A. Removes them universally

B. Expressly preserves them under section 11

C. Replaces every conversion order

D. Authorizes public subdivision sales

13. Which statement about local taxes under RA 11953 is best?

A. Every local tax is automatically cancelled

B. The buyer never needs local records

C. Only the landowner’s asking price matters

D. Encouraged LGU amnesty is different from an automatic blanket cancellation

14. Agricultural land was locally reclassified commercial in 2020. What does that alone establish?

A. Planning reclassification, with conversion and other legal issues still to check

B. A complete DAR conversion order

C. Automatic extinguishment of agricultural tenure

D. A license to sell every proposed lot

15. For the cited historic conversion distinction, what date is central?

A. 1 January 2027

B. 30 June 2014 for every issue

C. 15 June 1988, with valid historic evidence required

D. The latest advertising date

16. A stipulated 10% local category uses 2,000 hectares total agricultural area. What is the reference ceiling?

A. Five hectares

B. 200 hectares

C. Twenty hectares

D. Ten percent of each owner’s lot only

17. A three-hectare title has conversion approval on 0.8 hectare only. What remains outside that supplied order?

A. 8,000 sq m

B. 22,000 sq m

C. 30,000 sq m necessarily all converted

D. 800 sq m

18. Under the cited amended section 65, what matters about irrigated and irrigable land?

A. A dry inspection automatically permits conversion

B. Zoning overrides the restriction automatically

C. Only the asking price matters

D. The statutory conversion prohibition requires proper status evidence

19. The exercise supplies PHP 4m qualifying conversion proceeds for the stated beneficiary securities obligation. What is 10%?

A. PHP 400,000

B. PHP 4m

C. PHP 40,000

D. 10% of unrelated retail revenue

20. Which statement about agrarian just compensation is best?

A. It always equals the seller’s asking price

B. It automatically equals one tax factor

C. It uses statutory factors and applicable methodology subject to the proper court’s determination

D. It is decided solely by the inspecting appraiser

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	C
2	A	12	B
3	D	13	D
4	B	14	A
5	B	15	C
6	D	16	B
7	A	17	B
8	C	18	D
9	A	19	A
10	D	20	C

1. C Award origin, registration, conditions and later records matter. One easily obtained receipt does not settle the legal history.

2. A RA 6657 section 6 has the ordinary five-hectare reference. PD 27 and special statutory situations must be separately identified.

3. D Amended section 25 provides the three-hectare general ceiling, including cumulative parcels and collective-title rules.

4. B Amended section 4 refers to landowners' total area for the stated acquisition-and-distribution exception.

5. B Section 6 conditions the child provision on both age and actual tilling or direct management. Age alone is insufficient.

6. D Legal characterization requires the relevant facts and statutory elements. Agricultural leasehold may arise in the recognized unwritten manner.

7. A Leasehold consideration can be certain or ascertainable in produce or money. Do not use the harvest-sharing formulation to exclude every fixed-rent lessee.

8. C RA 3844 section 10 preserves the relationship through the stated changes in ownership or possession.

9. A The original RA 3844 text must be read with RA 6389, which removed personal cultivation in the amended ground.

10. D Deduct first: PHP 180,000. Multiply by 25% to obtain PHP 45,000; do not use gross harvest.

11. C A passed period alone is not a complete determination of transfer or development permissibility.

12. B The statute preserves existing limitations on transfer, ownership and agricultural use while providing financial relief.

13. D Section 7's local-amnesty encouragement must be distinguished from the statutory estate-tax treatment and actual local action.

14. A Post-effectivity local reclassification is distinct from conversion. It does not supply every permission or eliminate protected rights.

15. C The Supreme Court discussion uses CARL's effectivity date and the valid classification history. A bare assertion of an old use is not enough.

16. B The denominator is the locality's supplied total agricultural area at ordinance passage: 2,000 × 10% = 200.

17. B Three hectares is 30,000 sq m; subtract the 8,000 sq m approved portion to leave 22,000.

18. D The amended provision prohibits conversion of the stated categories. Temporary dryness alone does not establish absence of irrigated or irrigable status.

19. A Apply the supplied qualifying base: PHP 4m × 10% = PHP 400,000. The actual operative proceeds basis requires evidence.

20. C The amended section 17 identifies multiple factors and the judicial role. A private-sale appraisal and final compensation determination are different tasks.

Worksheet model responses

Response 1

Obtain original award and agrarian regime, registration and receipt or possession records, complete title chain and annotations, relevant debt/payment or condonation evidence, approved surveys, tenure and crop records, any cases, valid zoning ordinance and its date, and conversion or exemption orders. Match each record to the same parcel and identify the legal date controlling each separate inquiry.

Response 2

Remaining teaching area = 15 − 5 = 10 hectares, or 100,000 sq m. Actual acquisition, retention location and allocation need determination. The child-award provision requires age of at least fifteen and actual tilling or direct farm management, plus the applicable official process. Being a child does not itself create unrestricted additional retention.

Response 3

Investigate installation and consent, agricultural land and purpose, personal cultivation, rental or harvest payments, crop and input responsibilities, agreements, receipts, witnesses and official records. Leasehold can involve a fixed or ascertainable consideration in produce or money, and its establishment need not depend on a written instrument named tenancy agreement. Do not decide the legal issue from the label alone.

Response 4

Base = PHP 300,000 − PHP 80,000 = PHP 220,000. Reference = PHP 55,000. This applies the supplied section 34 harvest-and-deduction assumptions. Whole farm-business profit includes other factors and is not interchangeable with statutory rent or income attributable solely to the land interest.

Response 5

Verify coverage and the certificate or notice, ledger and registry annotation. The statute lifts qualifying mortgage liens in favor of the National Government represented by LBP, not every private encumbrance. Section 11 preserves transfer, ownership and agricultural-use restrictions. Awarded-land estate-tax treatment and encouraged LGU local amnesty are distinct; the latter requires applicable local action.

Response 6

Total area = 40,000 sq m. Approved part = 12,500 sq m. Remaining = 27,500 sq m. Verify technical coverage, approved use, implementation period, compliance and finality or challenges. Check access, environment, local planning, subdivision selling and building approvals where relevant. A partial conversion cannot simply be extended to the remainder by inference.

Response 7

Government-securities reference = PHP 5m × 10% = PHP 500,000 on the expressly stipulated qualifying proceeds. Receipt PV = PHP 10m ÷ 1.10^2 = PHP 8,264,462.81. Simplified net = PHP 6,264,462.81. These are separate calculations; the receipt scenario is not the statutory proceeds base unless expressly established.

Response 8

A private-sale appraisal values a defined interest for its stated basis and date. Agrarian compensation uses statutory factors and applicable methodology, with final determination in the statutory judicial framework. Verify current DAR orders, amendments, application requirements, decision authority, fees, technical restrictions, notice and implementation requirements. Do not supply exact present-day deadlines from an unread attachment.

22 Essential terms and calculation review

CARP Comprehensive Agrarian Reform Program; distinguish program components and the applicable law.

Retention Landowner area retained under the governing regime and recognized conditions.

Agricultural leasehold Protected cultivation relationship under the applicable statute and facts.

CLOA Certificate of Land Ownership Award; read agrarian origin and conditions.

EP Emancipation Patent; identify the applicable award history.

Collective award Ownership under the named co-owner or organizational structure; not an automatic private subdivision.

Condonation Qualifying financial relief under the operative law and documented account.

Reclassification Allocation of land use within the legal planning framework.

Conversion Authorized change in actual agricultural use under the applicable process.

Exemption or exclusion A determination addressing a specific coverage or status question.

Special assumption An expressly changed premise distinguished from actual conditions.

Just compensation The legally determined compensation in the specific taking and statutory framework.

Exercise	Teaching calculation
Area conversion	Hectares × 10,000 = square meters
Remaining area	Gross area − stipulated retained or approved portion
Lease reference	(Relevant normal harvest − specified deductions) × 25%
Proceeds requirement	Stipulated qualifying proceeds × 10%
Receipt present value	Future receipt ÷ (1 + supplied periodic rate) raised to periods
Simplified scenario net	Present value of supplied receipts − supplied present costs

Always identify the legal or model base. These calculations do not determine beneficiary qualification, transfer validity, conversion approval or final market value without the relevant evidence.

23 Sources and 2027 preparation status

The primary statutes and selected court readings below were reviewed on 12 October 2026. Bracketed numbers identify the sources. Original explanations and hypothetical exercises apply selected provisions; they are not a consolidated statement of every agrarian rule or a case-specific legal opinion.

RA 6657 is read with RA 9700 and the selected amendments. RA 3844 is read with RA 6389 for the rent, pre-emption/redemption and dispossession provisions taught here. RA 11953 is included so historical amortization obligations are not presented as universally outstanding after qualifying condonation. Its preservation of transfer, ownership and use limits is expressly taught.

Current detailed DAR conversion and transfer procedures, fee schedules, administrative delegation, crop-specific rental determinations, condonation implementation, individual-title parcelization and the full operative compensation formula need their current primary sources and actual records. The official 2021 FOI response identifies administrative amendments, but its full attachment and the cited 2019 PDF could not be retrieved for clause checking. No exact present-day processing promise is asserted.

This is an original examinee preparation lesson within the proposed curriculum. It does not assert an official 2027 PRC date, detailed topic weight or syllabus revision. Refresh those issuances and later laws before the examination. The locality classification bands are identified as the section 20 wording and must be read with the current classification framework and applicable interpretation.

1 RA 6657

Comprehensive Agrarian Reform Law, 10 June 1988. Selected sections 3–6, 12, 16–17, 22–27, 56–57 and 65. Read with amendments; original wording alone is not a consolidated current source.

https://lawphil.net/statutes/repacts/ra1988/ra_6657_1988.html

2 RA 9700

7 August 2009. Selected amendments to coverage, compensation, awards, transfer, conversion and jurisdiction; section 30 on qualifying pending proceedings.

https://lawphil.net/statutes/repacts/ra2009/ra_9700_2009.html

3 PD 27

21 October 1972. Original rice/corn tenant-farmer framework and regime-specific historical figures. Actual EP transfer analysis requires the complete applicable later law and history.

https://lawphil.net/statutes/presdecs/pd1972/pd_27_1972.html

4 RA 3844

Agricultural Land Reform Code, 8 August 1963. Selected sections 5–10, 13, 15 and 31. Read the provisions amended by RA 6389 in their amended form.

https://lawphil.net/statutes/repacts/ra1963/ra_3844_1963.html

5 RA 6389

10 September 1971. Selected sections 2, 5 and 7 amend pre-emption/redemption, harvest-based rent and dispossession provisions.

https://lawphil.net/statutes/repacts/ra1971/ra_6389_1971.html

6 RA 11953

New Agrarian Emancipation Act, 7 July 2023. Selected sections 2–4 and 7–11 on relief, annotations, restoration, disqualification and preserved restrictions.

https://lawphil.net/statutes/repacts/ra2023/ra_11953_2023.html

7 RA 7160

Local Government Code, 10 October 1991. Section 20 on reclassification; its legal categories and percentages are not a current classification certificate for any particular LGU.

https://lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

8 Reclassification and conversion

Chamber of Real Estate and Builders Associations v Secretary of Agrarian Reform, G.R. No. 183409, 18 June 2010. Selected discussion of conversion jurisdiction, historical classification and the 15 June 1988 distinction.

https://lawphil.net/judjuris/juri2010/jun2010/gr_183409_2010.html

9 RA 7881

20 February 1995. Selected amendments to agricultural definitions, exclusions, commercial farms and fishpond conversion. Conditions prevent treating the original exemption list as universally current.

https://lawphil.net/statutes/repacts/ra1995/ra_7881_1995.html

10 Evidence of agricultural tenure

Supreme Court, G.R. No. 167748, 8 November 2005. Selected discussion of tenancy elements and produce or money consideration under leasehold. Facts and later controlling decisions remain relevant.

https://lawphil.net/judjuris/juri2005/nov2005/gr_167748_2005.html

11 RA 11964

26 October 2023. Revised automatic LGU income classification framework. Use current official schedules and the applicable legal analysis for an actual locality.

https://lawphil.net/statutes/repacts/ra2023/ra_11964_2023.html

12 Administrative rules update record

DAR official FOI response, 13 December 2021, identifying AO 03-A and the AO 03 series 2021 amendments to the 2002 and 2019 conversion rules. Identity verified; full attachment not retrieved.

https://www.foi.gov.ph/requests/amended-land-conversion-rules-spus/

REALEX

Lesson 17

Planning Building Controls and Site Constraints

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

A proposed building can fit on a drawing and still exceed the site's lawful or practical capacity. This lesson teaches you to read the planning and building evidence, combine the constraints and connect the resulting space to an appraisal or development scenario.

The chapter develops the highest-and-best-use and agrarian-conversion lessons into zoning, building and occupancy approval, setbacks, coverage, FAR, height, parking, access and watercourse easements. It also covers the checked accessibility update, fire and environmental distinctions, hazard screening and existing-building evidence.

Harana Corner is fictional. Its dimensions, local controls, rents and rates are supplied learning assumptions rather than verified requirements for any municipality. The site diagram, cases, worksheet and questions are original. The source notes distinguish checked statutory and current-source concepts from detailed local and technical provisions requiring a site-specific check.

Your learning goals

- Distinguish the CLUP, zoning ordinance, conversion and building approvals.
- Verify the actual parcel, corridor boundaries and relevant permissions.
- Separate a building permit from the certificate of occupancy.
- Calculate a geometric envelope from supplied setbacks.
- Compare coverage, counted floor area, FAR, height and rentable efficiency.
- Overlay easements without deducting the same land twice.
- Explain why parking and access need a complete legal and physical layout.
- Apply the checked general accessibility ramp reference in a worked calculation.
- Distinguish fire inspection, environmental coverage and other approvals.
- Use hazard maps with coordinate and site limitations.
- Compare actual construction with the approved building and occupancy evidence.
- Translate provisional development capacity into a clearly labelled income scenario.

Study plan: Allow four to five hours in two sessions. Study sections 1–8 on approvals and area controls, then sections 9–16 on access, safeguards and valuation. Draw the site envelope and attempt the ten cases, two-page worksheet and twenty-question test before checking the answers.

1 The development envelope is a conclusion from evidence

A vacant lot does not carry a guaranteed number of floors, rooms or square meters of rentable space merely because the owner has a drawing. Its development capacity depends on the interest, permitted use, boundary, access, site conditions and interacting controls. The appraiser must distinguish what could be drawn, what could be approved and what the market would support.

This lesson uses the fictional Harana Corner project, an 18-meter-wide by 50-meter-deep rectangular site. It fronts an identified road and has a watercourse along its rear. Harana proposes retail at ground level and offices above. The teaching file supplies setbacks, coverage, floor-area and height assumptions so you can calculate an envelope. Those numbers are not a representation of the rules in any Philippine locality.

Start with the real question. An acquisition appraisal in the actual condition needs support for the legally available use at the valuation date. A feasibility study can explore a proposed use with identified permissions still outstanding. A completed-building scenario can assume a specified altered condition. These assignments require different evidence and should not all be described as the value of an approved project.

A useful distinction is entitlement versus capacity. Entitlement concerns the established legal permission and conditions. Physical capacity concerns what can actually fit and function. Economic capacity concerns demand, rents, costs and risk. A legal floor-area allowance does not establish physical efficiency or market absorption, and a profitable projection does not grant legal permission.

Carry forward Lesson 3's highest and best use tests and Lesson 16's conversion distinctions. Planning analysis supplies the legal and physical foundations; financial feasibility and maximum productivity still need their own evidence. A planning worksheet is an input to appraisal reasoning, not a substitute for the whole opinion.

2 Read the planning and approval layers together

The comprehensive land use plan, or CLUP, sets the locality's land-use framework. The enacted zoning ordinance and its maps supply enforceable local zoning provisions within their authority. National building law and its applicable implementing and referral rules address building design, construction, use, occupancy and maintenance. Additional agrarian, environmental, access, water, accessibility and fire rules can operate at the same site. [1–8]

These layers do not replace each other. Commercial zoning does not prove that agricultural conversion was approved. A building permit does not transfer ownership or establish a missing access right. An environmental document does not replace a building or occupancy permit. A property tax declaration is not a zoning authorization. Read the document's legal purpose before using it as evidence.

Record or control	Question it primarily addresses
Title and survey	Which interest and parcel?
Zoning ordinance and map	Which planning uses and controls?
Conversion decision where applicable	Is the actual-use change authorized?
Building permit and approved plans	Which construction work is authorized?
Certificate of occupancy	Which completed building or portion may be occupied?
Specialist and agency evidence	Which technical, safety and environmental conditions?

RA 7160 section 20 addresses local land reclassification and the CLUP and zoning framework while preserving CARL. RA 11201 supplies the current national housing and planning institutional framework. The local ordinance and the actual permit process remain necessary for a site-specific conclusion. Do not treat an old reviewer naming a historical housing authority as a current filing directory. [2–3]

Create an evidence register with the source, issuing body, version, effective date, geographic coverage, permitted act, conditions and status. A printed map can be superseded; an ordinance can have amendments; a permit can cover only a portion; a clearance can depend on facts that changed. An authentic record still has to be relevant to this parcel and proposal.

Where controls interact, do not assume an appraiser can resolve every conflict by selecting the strictest number. First determine legal applicability, definitions, authority and the approved interpretation. Applying the more restrictive valid applicable constraint is a sensible modeling step, but it cannot make an inapplicable rule legally binding or replace the authority's determination.

3 Read zoning as a document rather than a color

A zoning map identifies spatial categories, but its colors must be read with the ordinance text, legend, boundaries, permitted uses, conditional uses, prohibited uses and development controls. A commercial zone may contain restrictions on particular activities or building forms. An overlay can introduce additional requirements without changing the base-zone label.

Locate the actual parcel, not simply the nearest road or barangay. A commercial corridor can have a defined depth, distance measurement and boundary that cover only the frontage strip. If the site extends behind the corridor, establish whether the rear remains in another zone. Do not assume that one commercial entrance converts the entire deep lot's designation.

For Harana Corner, a supplied ordinance map depicts a commercial corridor along the road. The appraiser should verify the ordinance, amendments and boundary relationship through the actual survey and relevant planning confirmation. A hand-drawn circle on a broker's screenshot is insufficient to determine which part of the lot lies inside the zone.

Distinguish a use permitted as of right from a use needing a special approval or other conditions. A variance or exception is not automatically available because a narrow lot makes compliance difficult. Establish the legal criteria, authority and actual approval if the proposed value depends on it. A pending request should not be priced as already granted without an expressly identified scenario.

Existing use also does not prove unrestricted permission for expansion. A lawful nonconforming use may have limits on continuation, enlargement, change or reconstruction under the actual ordinance. An unauthorized use is a different matter. Obtain evidence of the legal status before projecting additional floors or a completely different business.

4 PD 1096 is a building framework with implementing rules

PD 1096, the National Building Code of the Philippines, establishes minimum standards for location, site, materials, construction, use, occupancy and maintenance. It covers the specified acts including construction, alteration, conversion and demolition within its scope. Detailed design requirements must be read with the applicable implementing rules, amendments and referral codes. [1]

Section 301 requires a building permit for the described work. Section 303 links permit processing to zoning and land use, lines and grades, structural, sanitary, environmental, electrical and mechanical requirements. The rule is broader than checking whether concrete and steel are strong enough. It integrates the building with its site and use.

Approved plans and specifications should not be changed without the required approval under section 304. A permit for two storeys does not necessarily authorize a third; approval for an office does not automatically approve a restaurant or assembly use. Compare the issued permit and approved plans with the actual construction and operation.

Section 305 provides that a permit does not authorize violations and can lose validity if the authorized work is not commenced within one year, or is suspended or abandoned after commencement for 120 days. This is the checked basic-code wording. Actual status, renewal, later applicable rules and facts must be confirmed rather than assuming a paper permit remains effective indefinitely.

The basic code also contains historical professional and technical references. They must be read with later professional legislation, operative implementing texts and referral standards. This lesson does not decide contested signing authority or reproduce a complete structural design code. An appraiser should verify that the relevant plans and specialist evidence come from the properly authorized professionals for the actual work.

5 Building approval and occupancy are different decisions

Section 309 requires a certificate of occupancy before use or occupancy, including the specified change in occupancy classification. The certificate follows completion and inspection within the applicable process. A building permit authorizes the approved work; it is not the same evidence as permission to occupy the completed structure. [1]

Examine the certificate's scope. It can be relevant to a building or a specified portion. An occupied ground floor does not prove that the unfinished upper floors have the same status. Match the approved occupancy, building identification, areas and conditions to what is being valued or leased.

Sections 701–703 address occupancy classification, change of use and mixed occupancy. A marketing label such as lifestyle hub is not a code classification. Restaurants, offices, dwelling units, storage and assembly areas can raise different life-safety and design issues. Mixed use needs the actual classification and separation analysis, including the applicable rules and exceptions.

For an existing house converted into a clinic, the owner may have residential plans and an old occupancy document. The proposed clinic still requires investigation of use permission, change of occupancy, access, sanitation, accessibility and fire requirements. An attractive location does not answer those questions.

An appraiser should separate absence of evidence from proven violation. If no occupancy certificate was supplied, record that fact, seek verification and assess material implications. Do not automatically certify illegality or compliance based solely on a missing photocopy. Equally, do not suppress a material unresolved matter because tenants have operated there for years.

6 Translate setbacks into a geometric envelope

A setback is a required separation from the relevant boundary or reference line under the applicable rule. The measurement reference matters. A road centerline, road-right-of-way boundary, property line and existing pavement edge can produce different positions. Obtain the correct survey and rule before subtracting dimensions.

The Harana teaching rectangle measures 18 by 50 meters, for a gross area of 900 square meters. Assume a three-meter front setback, two meters at each side and a five-meter rear setback. Before any other constraint, clear envelope width is 18 − 2 − 2 = 14 meters and depth is 50 − 3 − 5 = 42 meters. The resulting rectangle is 588 square meters.

This is a geometric upper envelope on supplied facts. It does not prove that every part can be covered by a building. Site coverage, required open areas, parking, access, courts, easements, terrain and building arrangement can further reduce the usable footprint. Irregular parcels also need a polygon analysis rather than the rectangle formula.

Different constraints can overlap. If a rear public-use easement is three meters measured from the same supplied rear line, while the rear setback is five, the larger five-meter band already contains the three-meter band. Do not deduct both separately as eight meters. If the bands use different baselines or lie in different positions, draw them and calculate their union instead.

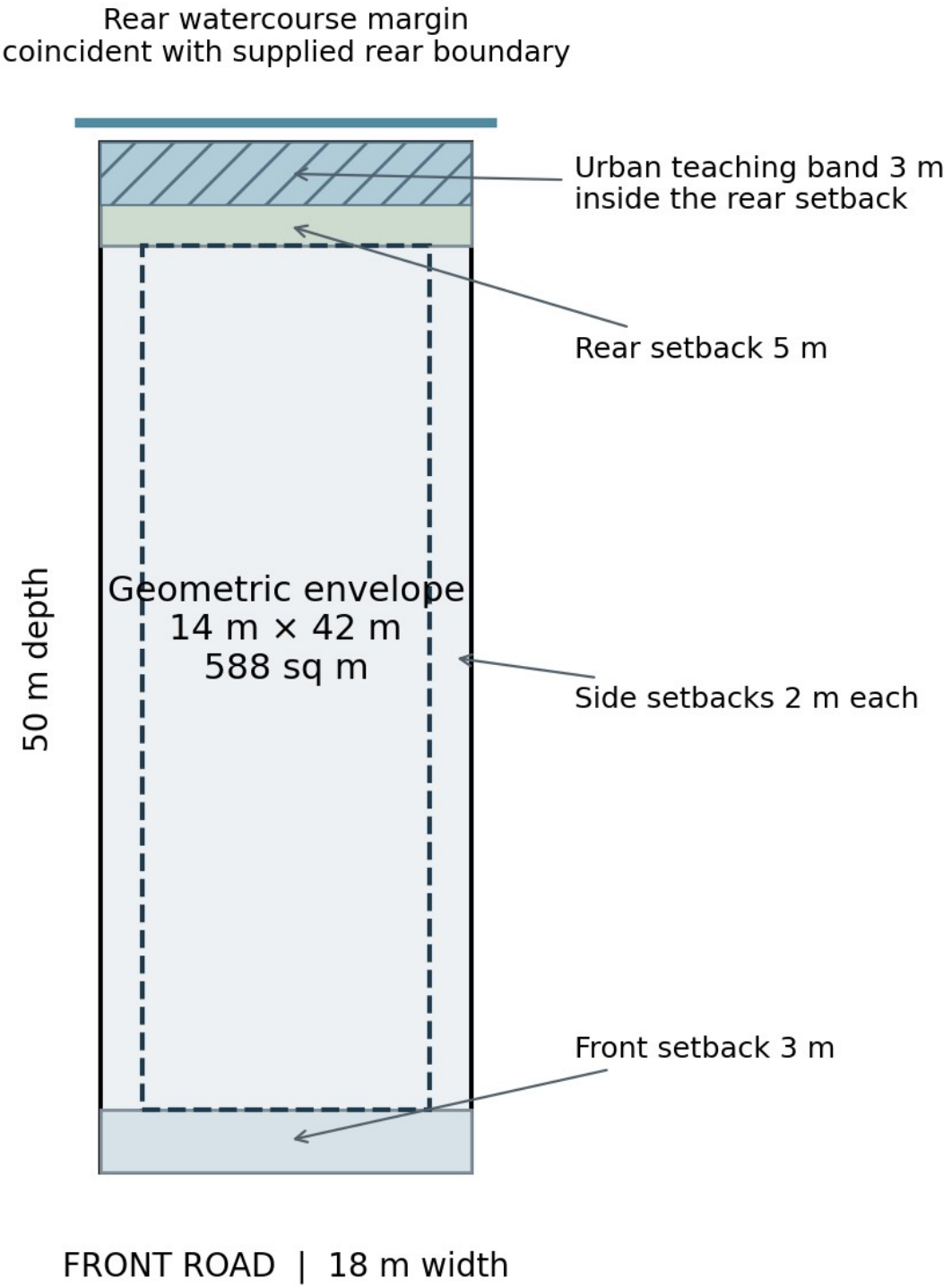


Figure 17.1 Original hypothetical envelope. Dimensions and bands are supplied assumptions. The 3 m band is within the 5 m rear setback; the sketch is not an approved design.

Projection rules, required openings and fire walls need separate technical review. A firewall is not universal permission to build to any boundary. A balcony or canopy that fits above a ground setback does not automatically satisfy projection, light, fire or public-space requirements. Keep the measured footprint definition consistent with the governing control.

7 Coverage open space and floor-area ratio measure different things

Site coverage concerns the defined building footprint relative to its specified site-area base. Floor-area ratio, or FAR, compares the defined counted floor area with its specified lot-area denominator. Open-space and permeable-area requirements can have their own definitions. The denominator and exclusions must be read from the actual rule, not chosen to maximize the result.

Assume Harana's teaching coverage limit is fifty-five percent of the 900-square-meter gross site. The coverage reference is 495 square meters. The setback rectangle gave 588, so the smaller 495-square-meter figure controls this simplified footprint comparison. It is still subject to the remaining constraints and design.

Assume the teaching FAR is 1.8 on the same gross-area base. The counted floor-area reference is 900 × 1.8 = 1,620 square meters. This figure is neither the ground footprint nor the rentable area. It describes the applicable counted floor area under the supplied definition.

For the teaching comparison, suppose three storeys are permitted and each can provide the full 495-square-meter counted floor plate. The resulting counted area is 1,485 square meters, below the FAR reference of 1,620. The three-storey footprint arrangement controls before the FAR cap is fully used. Do not calculate 1,620 per floor or assume FAR alone determines the number of storeys.

Actual floor-area definitions can treat parking, services, balconies, voids, basements and other spaces differently. A statutory or local excluded area is not automatically free construction space without height, access, fire and cost implications. Total built area, counted area and usable or rentable area should appear as separate fields in a development model.

Teaching quantity	Calculation	Meaning
Gross site	18 × 50 = 900 sq m	Supplied area base
Setback rectangle	14 × 42 = 588 sq m	First geometric envelope
Coverage reference	900 × 55% = 495 sq m	Footprint constraint
FAR reference	900 × 1.8 = 1,620 sq m	Counted floor-area cap
Three equal plates	495 × 3 = 1,485 sq m	Simplified built arrangement
80% efficiency	1,485 × 80% = 1,188 sq m	Supplied rentable output

8 Height storeys and space efficiency need their own tests

PD 1096 section 707 connects building height and storeys with occupancy, construction and site context through the governing rules. Actual height controls can also arise from zoning, airport or other restrictions. A stated three-storey allowance is not an assurance that every proposed roof, equipment enclosure or floor height fits a meter-based limit. [1]

For Harana, the exercise supplies a twelve-meter height cap and three permissible storeys. A schematic stack of three four-meter floor-to-floor heights already uses twelve meters before checking the legally defined measurement and other elements. Actual design must reconcile structure, roof, equipment, ground levels and the permitted measurement convention. The arithmetic is a prompt for review, not a final height certification.

The highest neighboring building is not a substitute for the applicable height allowance. Its permit, date, use or approvals may differ. Likewise, a tax record showing four floors does not prove that four floors are authorized on another parcel.

Space efficiency converts a defined gross or counted area into a usable output under explicit assumptions. If the simplified 1,485-square-meter teaching building has eighty-percent rentable efficiency, rentable area is 1,188 square meters. The remaining 297 square meters represents the assumed nonrentable component of that particular model, not a universal code allowance.

Lift shafts, stairs, lobbies, accessible circulation, toilets and plant space can alter efficiency and the feasible layout. A larger gross building can produce less rentable space than expected if circulation and service requirements grow. Use a supportable schematic design or comparable efficiency evidence rather than assuming every square meter within the legal envelope earns rent.

9 Parking loading and access can become the binding constraint

Parking needs the applicable occupancy and local requirements, bay dimensions, accessible spaces, circulation, entry and maneuvering. A parking count based only on the area of rectangular bays ignores aisles, ramps and turning. A road-frontage address does not prove that any chosen driveway is authorized or safe.

Use stipulated numbers for the teaching exercise. Suppose twelve spaces are required and a preliminary allowance of twenty-five square meters per space includes a supplied circulation provision. The reference area is 300 square meters. This is a planning assumption, not a verified Philippine parking standard or an engineered layout.

The gross site remaining outside a 495-square-meter footprint is 405 square meters. It would be wrong to declare parking feasible solely because 405 exceeds 300. Rear easements, landscaping, front access, fire access, pedestrian routes and unusable geometry may occupy some of the same land. Test their combined layout and legal compatibility.

For a basement, investigate ramp length, entry slopes, flood exposure, excavation, groundwater, ventilation, fire protection and structural cost. An off-site parking proposal needs an accepted legal arrangement and approval, not merely vacant land nearby. Removing parking from the model to improve profit does not remove an applicable requirement.

Legal access and physical access also differ. Review the road boundary, ownership or easement, restrictions, width and ability to provide the required connection. Delivery vehicles, emergency response and accessible pedestrian movement can have different needs. A visible track or a gate in an adjacent owner's fence is not a complete permanent access right.

10 Watercourse and coastal easements must be measured correctly

Water Code article 51 provides public-use easements along river and stream banks and sea and lake shores: three meters in urban areas, twenty in agricultural areas and forty in forest areas, along their margins. It also restricts staying and construction in that zone. These numbers are the checked statutory categories, not a universal three-meter setback for every water-adjacent property. [4]

Determine the actual water feature, legally relevant margin, classification and survey. A drainage ditch, riverbank, foreshore and private drainage easement can raise different legal questions. Do not measure from the center of the channel or the center of a road unless that is the correct applicable reference. Obtain specialist survey and agency evidence where material.

Article 51 category	Statutory reference width	Measurement inquiry
Urban	3 m	Relevant bank or shore margin
Agricultural	20 m	Relevant classification and margin
Forest	40 m	Relevant classification and margin

Other flood-control, protected-area, road or valid project restrictions can operate separately. The existence of an article 51 width does not prove that every larger claimed reservation is invalid or valid. Check its legal basis and authority. A local agency cannot simply invent ownership over a wider private strip without the proper legal foundation.

For a stipulated rear margin coincident with Harana's straight eighteen-meter boundary, a three-meter band occupies 54 square meters. It overlaps the supplied five-meter rear setback. Under those simplified matching baselines, no additional depth deduction is needed beyond the five-meter band. The area remains subject to the public-use restriction even though the setback arithmetic already accounted for the space.

Now change the teaching classification and assume a valid twenty-meter band along the same rear margin. Effective depth becomes 50 − 3 − 20 = 27 meters, while width remains fourteen. The geometric footprint envelope is 378 square meters. The fifty-five-percent coverage reference of 495 no longer controls; the smaller 378-square-meter geometry does. This demonstrates an interacting constraint, not permission to choose whichever classification gives more space.

11 Accessibility is a complete route and current standard

BP 344 establishes the accessibility requirement within its scope. NCDA publishes the 2024 revised implementing material, so older dimensional notes should not be treated as a complete current schedule. The accessible-ramp provision gives a minimum clear width of 1,200 millimeters and a general gradient not steeper than 1:20, with special-case treatment and further features that must be read together. [5–6]

A ramp alone does not establish accessibility. Review the continuous route from arrival or accessible parking through the entrance, doors, circulation, relevant floors and facilities. Landings, maneuvering space, handrails, surface conditions, tactile features and accessible toilets can all affect the design. A narrow door after a compliant ramp can still defeat the route.

For an original calculation using the general 1:20 slope, a 0.30-meter rise requires six meters of horizontal sloping run. A one-meter rise requires twenty meters of sloping run, before required landings and other features. Do not fit a twenty-meter route into a ten-meter strip by quietly reverting to an old remembered gradient.

Special-case gradients in the current source have their own conditions. They are not a universal entitlement for every constrained existing site. A professional design and the relevant approval must address applicability and all components. This chapter teaches the verified general ramp reference and a supplied calculation, not every dimensional accessibility provision.

For appraisal, accessibility can affect lawful use, customer reach, retrofit cost and design efficiency. A property marketed as a clinic or public-facing shop should not be analyzed only as a decorative interior. Verify the practical and legal route, identify material deficiencies and obtain a supported remedial scope rather than inserting a vague compliance contingency.

12 Fire safety environmental screening and services remain separate

RA 9514 is the Fire Code of the Philippines of 2008 and repeals the older PD 1185 framework. It assigns enforcement to BFP and provides fire-safety requirements and inspection conditions. A reviewer teaching PD 1185 as the current governing Fire Code needs updating. Technical application must use the operative implementing material and occupancy facts. [7]

The Act requires the specified fire-safety inspection certification before occupancy, business or operating permissions. Do not confuse design evaluation with a completed-building inspection. Verify the actual certification, project identification and current scope. The presence of extinguishers is not a complete fire-safety compliance determination.

Exits, travel, occupant load, alarms, suppression, separation, access and hazardous processes interact. A single staircase acceptable for one stipulated use cannot be assumed adequate for a restaurant, assembly space or a change in use. Obtain the specialist layout and requirements before a model converts all circulation area into rentable space.

PD 1586 establishes the Philippine environmental impact system. Coverage depends on the project and the environmental context under the applicable framework. An ECC addresses its environmental scope and conditions; a Certificate of Non-Coverage addresses the stated coverage determination. Neither establishes every other permit or removes other environmental obligations. EMB expressly cautions that CNC issuance does not exempt compliance with other environmental laws. [8–9]

Review wastewater disposal, storm drainage, solid waste, noise, water supply and utility capacity separately. A nearby power pole does not prove available capacity, and a pipe on the boundary does not prove an authorized connection. Upgrade and connection costs, reliability and delivery time can affect both feasible use and appraisal inputs.

13 Hazard screening requires coordinate and site verification

Hazard maps can identify issues requiring investigation, including flooding, liquefaction, ground rupture, landslide, storm surge and volcanic effects. HazardHunterPH uses official agency information but describes limitations involving data, boundaries and ground discrepancies. Its scenario maps are reference evidence rather than an absolute prediction. Use the correct site coordinates and supplement screening with appropriate records and field assessment. [10]

A parcel pin near a hazard boundary can be sensitive to a small coordinate error. Plot the survey-based site outline where available rather than relying only on a point at the barangay center. Record map layer, date, scale, position and source. A screenshot without those details can be impossible to reproduce or evaluate.

Hazard, exposure and vulnerability are different concepts. Hazard concerns the potentially damaging event or condition. Exposure concerns people or assets in its reach. Vulnerability concerns susceptibility to harm. A mapped hazard does not establish a fixed percentage value loss, while a visually dry site does not prove no flood exposure.

For a proposed basement in a flood-prone location, investigate groundwater, drainage, flood levels, pumping, access and failure consequences. A building's resilience and insurance conditions can differ from an undeveloped parcel's. A geotechnical investigation also addresses matters that a regional map cannot settle, such as bearing conditions and site-specific foundation requirements.

An appraiser should explain the chain from hazard evidence to a market implication. That can involve additional cost, use restriction, interrupted access, insurance, marketing or demand. Use supportable evidence and avoid deducting the same effect in the floor-area model, cost line and discount rate without reconciliation.

14 Existing buildings need an actual versus approved comparison

For existing property, assemble the permit, approved plans, amendments, completion records, occupancy certificate and relevant specialist and agency evidence. Compare them with measured or observed construction, present use and condition. An as-built drawing describes what was recorded as built; it does not alone prove that every deviation was authorized.

Identify extensions, enclosed balconies, added mezzanines, changed use, obstructed exits and equipment alterations. Determine what evidence is missing and obtain the relevant professional assessment. Do not use the tax assessment's floor area as a complete substitute for the approved and actual building areas.

Legal nonconformity, unauthorized construction, deterioration and functional obsolescence are different findings. A lawful old structure may be unsuitable for the current market. A new-looking addition may lack the required approval. A defect's effect on value depends on its actual legal and physical consequence and supported market response.

A cost-to-cure estimate can assist analysis, but it must have a credible remedial scope. Some changes require approval, demolition, reduced rentable space or changed operation; not every problem can be cured simply by paying a fee. The cost is not always identical to value loss, and a compliance reserve is not proof that a cure is lawful.

For a comparison sale, identify whether the price reflected the same defect or an agreement for the seller to cure it. An unexplained deduction from both the comparable and the subject model can double-count. Preserve the rights, conditions, dates and transaction terms as taught in Lessons 7 and 9.

15 Reconcile the envelope with development economics

The simplified Harana base case gives 495 square meters footprint, three storeys and 1,485 square meters counted floor area, with 1,188 square meters rentable at eighty-percent efficiency. Use supplied financial inputs only after labeling that provisional geometry. The model does not certify final parking, safety, structure or approvals.

Assume rent of PHP 450 per rentable square meter monthly, ninety-percent collection and occupancy realization, and owner operating expenses equal to twenty-five percent of effective income. Annual potential rent is PHP 6,415,200; effective income is PHP 5,773,680; simplified NOI is PHP 4,330,260. At a supplied eight-percent capitalization rate, the income indication is PHP 54,128,250.

In the alternative stipulated twenty-meter rear-band case, footprint is 378 square meters. Three equal storeys give 1,134 square meters counted and 907.2 square meters rentable. With the same supplied financial assumptions, NOI is PHP 3,306,744 and the indication PHP 41,334,300. The difference is PHP 12,793,950 under those assumptions, before other scenario differences.

That difference is not an observed market loss from an easement change on an actual site. The calculations deliberately change one binding constraint to show sensitivity. Real permissions, demand, operating ratios, rates, construction cost and timing require support. Reduced area can change layout and unit rates, and fixed expenses need not fall proportionally with rent.

A completed-property indication is not automatically residual land value. A development model must account for supported costs, timing, profit or required return and the selected method. Subtracting a single construction subtotal from capitalized completed income without the other components can overstate land value. Detailed development valuation is taught later in the curriculum.

Teaching scenario	Smaller rear band	Alternative 20 m band
Footprint	495 sq m	378 sq m
Counted area for 3 plates	1,485 sq m	1,134 sq m
80% rentable	1,188 sq m	907.2 sq m
Simplified NOI	PHP 4,330,260	PHP 3,306,744
Indication at supplied 8%	PHP 54,128,250	PHP 41,334,300

16 Answer planning questions in a reproducible sequence

Write the subject and proposed use. Confirm title, boundary, tenure and access. Read the actual zoning and relevant land-use decisions. Apply the correct national and local controls, then overlay easements and hazards. Test geometry, area, height, circulation, parking, services and technical feasibility. Finally, examine the market and economics under clear assumptions.

For calculations, write every base and unit: gross site area, footprint, counted floor area, rentable area, meters of rise and run, and the applicable measurement line. Use the smaller valid constraint where it applies to the same quantity, and use a drawn union for overlapping restrictions. Do not add unrelated percentages merely because they both appear in a code table.

Record uncertainty by issue and evidence, not only as one generic disclaimer. A missing ordinance amendment is different from an unknown soil condition or an unverified occupancy certificate. Identify what would resolve it and what implication it has for the assignment. A conditional scenario can be useful when it is clearly separated from established facts.

The most frequent examination traps are map color mistaken for permission, permit mistaken for occupancy, FAR mistaken for footprint, gross area mistaken for rentable area, overlapping bands deducted twice, parking bays mistaken for a complete parking layout, an old ramp rule mistaken for the current general reference, and a hazard map treated as a fixed valuation discount.

The worked cases, worksheet and twenty questions apply the checked concepts and supplied hypothetical controls. They are not an official local design manual or a confirmed 2027 PRC table of specifications. Lesson 18 develops local property assessment and tax principles, keeping valuation, assessment level and tax rate distinct.

17 Ten worked planning cases

Attempt the question first. Establish the document, applicable base and supplied conditions before calculating. These examples are not a permit decision, official engineering design or certification for an actual site.

Case 1 Read the commercial corridor

Question: The seller shows a map coloring the frontage commercial and assumes the entire fifty-meter-deep lot has the same classification.

Solution: Obtain the enacted ordinance, amendments, map legend and parcel overlay. Verify the corridor boundary and any site-specific interpretation; a frontage color alone does not establish the rear designation.

Reasoning: Planning designation, conversion and project permits remain separate. The exact locality and parcel determine the evidence needed. [2–3]

Case 2 Building permit or occupancy

Question: A building has a permit and completed ground-floor shops. The upper floors differ from approved plans and no occupancy certificate is supplied.

Solution: Verify the building permit, approved amendments, actual work and occupancy evidence by portion. A construction permit is not an occupancy certificate, and unverified upper work cannot be assumed authorized. [1]

Reasoning: Missing evidence warrants investigation and disclosure. It does not let the appraiser conclusively certify either violation or compliance from a photocopy file alone.

Case 3 Calculate the geometric envelope

Question: Use an 18 m × 50 m rectangle, front setback 3 m, rear 5 m and sides 2 m each. No other geometry constraints apply in this first step.

Solution: Gross area = 900 sq m. Envelope width = 14 m; depth = 42 m. Geometric envelope = 588 sq m.

Reasoning: These are supplied teaching controls, not national default setbacks. Actual footprint can be further limited by coverage, access, easements and technical design.

Case 4 Find the binding area constraint

Question: The same site has supplied coverage of 55%, FAR 1.8 and three permitted storeys with equal full floor plates. Compare the controls.

Solution: Coverage reference = 900 × 55% = 495 sq m, smaller than the 588 sq m geometry. FAR reference = 1,620 sq m. Three 495 sq m plates give 1,485 sq m, below FAR; the simplified floor arrangement binds.

Reasoning: Do not multiply FAR by each floor. Verify actual counted-area definitions and all remaining design and approval constraints.

Case 5 Do not deduct the rear band twice

Question: A stipulated 3 m article 51 band lies within a supplied 5 m rear setback. Both are measured inward from the same straight rear margin coincident with the boundary.

Solution: Use the combined band of 5 m, not 8 m. The 3 m band has area 18 × 3 = 54 sq m but is already geometrically inside the rear reservation.

Reasoning: The public-use restriction still applies. Different baselines or spatial positions would require a drawn union rather than automatically taking the larger number. [4]

Case 6 A different valid band changes capacity

Question: Assume the applicable rear band is instead stipulated as 20 m on the same margin. Retain the front 3 m and side 2 m setbacks, 55% coverage, FAR 1.8 and three equal storeys.

Solution: Depth = 50 − 3 − 20 = 27 m. Geometry = 14 × 27 = 378 sq m, now below coverage’s 495. Counted floor area = 1,134 sq m; at 80% efficiency, rentable area = 907.2 sq m.

Reasoning: This is an alternative supplied classification scenario, not a choice available merely to improve project feasibility. Actual land and water-margin status requires evidence.

Case 7 Parking arithmetic is not a layout

Question: The teaching building covers 495 sq m of a 900 sq m site. Twelve parking spaces use a supplied 25 sq m per-space preliminary allowance. Does the calculation prove feasibility?

Solution: Remaining gross area = 405 sq m; parking reference = 300 sq m. These figures alone do not prove the layout fits.

Reasoning: Check easements, access, landscaping, fire routes, accessible paths, geometry and approved parking standards. The same area cannot be allocated to incompatible uses twice.

Case 8 Use the current general ramp reference

Question: A 0.30 m entrance rise uses the checked 2024 accessibility general gradient of 1:20. Find the horizontal sloping run.

Solution: Run = 0.30 × 20 = 6 m. Add the applicable landings, width, handrails and other route requirements in actual design. [5–6]

Reasoning: A ramp calculation alone does not establish continuous accessibility. Special-case gradients need their own conditions and approval.

Case 9 Check environmental and hazard evidence

Question: A CNC and an online low-susceptibility map are supplied. The owner says all construction and safety permissions are resolved.

Solution: A CNC does not remove other environmental requirements or supply all permits. Verify its project scope. The map is screening evidence with limitations; confirm coordinates and obtain relevant site and specialist information. [8–10]

Reasoning: Neither record proves structural adequacy, permanent legal access, building approval or occupancy. Nor does the map establish a fixed percentage value adjustment.

Case 10 Connect area to a labelled income model

Question: The teaching base case has 1,188 sq m rentable area, PHP 450 monthly rent per sq m, 90% realization and expenses 25% of effective rent. Capitalize at a supplied 8%.

Solution: Potential annual rent = PHP 6,415,200. Effective rent = PHP 5,773,680. NOI = PHP 4,330,260. Indication = PHP 54,128,250. Alternative 907.2 sq m rentable area gives PHP 41,334,300 on the same assumptions.

Reasoning: The PHP 12,793,950 difference is a controlled sensitivity result. It is not observed market loss, a final approval or residual land value before supported development costs and timing.

18 Planning and site-envelope worksheet

Suggested time: 45 minutes. Use the lines for key points and a separate sheet for drawings and full explanations. Show all units and distinguish the supplied control from an actual local rule.

1 Build the planning evidence file

List the documents needed to establish the parcel, legal access, zoning, actual use, building approval, occupancy, easements and significant hazard constraints.

_____

_____

_____

2 Draw the envelope

Use a supplied 20 m × 40 m site with front 4 m, rear 6 m and side setbacks of 2 m each. Calculate gross area, clear dimensions and the first geometric envelope.

_____

_____

_____

3 Test coverage and FAR

For that 800 sq m site, assume coverage 50%, FAR 1.5 and three equal permissible storeys. Compare footprint and counted floor-area constraints, before remaining design tests.

_____

_____

_____

4 Overlay the rear margin

A stipulated 3 m rear band is wholly within the 6 m rear setback on the same margin. Explain the combined deduction. Then replace it with a valid supplied 10 m band and recalculate the footprint geometry.

_____

_____

_____

Planning worksheet continued

5 Check rentable and parking area

Use the original simplified three-storey area from task 3 and 75% rentable efficiency. Compute rentable area. Ten parking spaces have a supplied 28 sq m preliminary allowance; calculate that area and explain why it is not a certified layout.

_____

_____

_____

6 Calculate accessible slope

At the checked general 1:20 gradient, calculate the sloping run for a 0.45 m rise. State at least four further elements to inspect in a complete accessible route.

_____

_____

_____

7 Interpret existing and environmental evidence

A house used as a restaurant has old residential plans, a CNC and no supplied occupancy-change or fire-inspection evidence. State the appropriate appraisal investigation and avoid conclusively declaring compliance or violation from that file alone.

_____

_____

_____

8 Build the income scenario

Use the calculated 900 sq m rentable area from task 5, PHP 400 rent per sq m monthly, 85% realization, expenses 20% of effective income and a supplied 9% capitalization rate. Compute NOI and the indication and explain why it is not residual land value.

_____

_____

_____

19 Review and examination checks

Question	Essential distinction
Where is the parcel?	Survey relationship differs from a map pin
What does the zone permit?	Read text, boundaries, overlays and conditions
May the building be used?	Building approval differs from occupancy
Which area is controlled?	Site, footprint, counted floor area and rentable area differ
Which constraint binds?	Compare applicable limits on the same quantity
Do bands overlap?	Use their spatial union and correct baselines
Is parking possible?	Area and count do not establish a complete layout
Is the route accessible?	Check the current standard and continuous route
Which safety document?	Fire, environment and building scopes differ
What does the hazard map show?	Screening differs from site verification
Do plans match the building?	Actual, as-built and approved records differ
What does the value model represent?	Conditional completed indication differs from land residual

A reproducible answer sequence

Identify the interest, parcel, use and date. Name the document and applicable condition. Draw boundaries and restrictions on matching reference lines. Compute the quantity and label it. State the remaining constraints and whether the conclusion is verified or conditional.

When you miss a numerical question, identify whether you used the wrong base, added overlapping bands, confused FAR with footprint or applied efficiency twice. When you miss a legal question, identify which document’s scope you overstated. Revise the reasoning, not just the answer letter.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These are newly authored exercises, not actual, recalled or reproduced PRC items. Hypothetical local controls and financial rates are expressly supplied assumptions.

1. A site is colored commercial on a broker’s map. What should be checked first?

A. Only the proposed rent

B. Only the owner’s budget

C. The actual ordinance map boundaries amendments and relevant permissions

D. Only the tallest neighboring building

2. A commercial corridor covers a defined frontage strip. Which inference is sound?

A. The rear parcel’s designation must be verified separately

B. The whole lot is automatically commercial

C. All easements disappear

D. Agrarian conversion is automatic

3. Which best distinguishes a building permit and certificate of occupancy?

A. Both establish ownership

B. Neither concerns actual use

C. They are identical documents

D. One addresses approved work and the other the statutory occupancy decision

4. Under the checked basic-code section 305, which period matters for work not commenced?

A. Ten years

B. One year from permit date

C. Thirty years

D. Only the tenancy period

5. Approved plans show two storeys and the owner adds a third. What is needed?

A. Only a higher asking price

B. Verification of the required amended approval and actual compliance

C. Only the contractor’s preference

D. No approval because FAR is high

6. For an 18 m × 50 m site with 2 m sides, 3 m front and 5 m rear, what is the first geometric envelope?

A. 900 sq m

B. 495 sq m

C. 1,620 sq m

D. 588 sq m

7. The 900 sq m site has supplied coverage of 55%. What is the coverage reference?

A. 495 sq m

B. 588 sq m

C. 1,485 sq m

D. 55 sq m

8. FAR is supplied as 1.8 on 900 sq m gross area. What does 1,620 represent?

A. Rentable area guaranteed for each floor

B. Ground footprint

C. Counted floor-area reference under the supplied definition

D. A required parking count

9. Three supplied full floor plates of 495 sq m give what counted area?

A. 1,485 sq m

B. 1,620 sq m per floor

C. 495 sq m for the entire building

D. 900 sq m

10. At 80% efficiency, 1,485 sq m counted area gives what supplied rentable area?

A. 297 sq m

B. 1,620 sq m

C. 1,485 sq m

D. 1,188 sq m

11. A rear 3 m easement lies fully within a 5 m setback on the same reference line. What is the combined depth band?

A. Eight meters in every case

B. Three meters only

C. Five meters on the supplied nested geometry

D. Fifteen meters

12. Which is the Water Code article 51 agricultural-area reference?

A. Three meters for every site

B. Twenty meters in the stated agricultural category

C. Forty meters in every private title

D. No public-use easement

13. A 20 m rear band replaces the smaller rear reservation. With the supplied front and side setbacks, what is Harana's geometry?

A. 588 sq m

B. 495 sq m

C. 900 sq m

D. 378 sq m

14. Twelve spaces use a supplied preliminary 25 sq m per-space allowance. What follows from 300 sq m?

A. It is an area reference requiring a complete layout test

B. It guarantees legal parking compliance

C. It replaces access approval

D. It removes easements

15. What general accessible-ramp gradient is stated in the checked 2024 NCDA material?

A. 1:5 universally

B. Any gradient an owner chooses

C. Not steeper than 1:20, with special cases subject to conditions

D. Only a remembered old rule without edition checking

16. At 1:20, a 0.30 m rise requires what horizontal sloping run?

A. 0.60 m

B. 6 m

C. 20 m

D. 3 m

17. A ramp meets its slope but the required route is blocked by a narrow doorway. What is best?

A. Accessibility is automatically complete

B. The whole route and facilities still require review

C. Only the slope can matter

D. The blocked doorway increases lawful capacity

18. Which Fire Code reference should replace a reviewer treating PD 1185 as the current basic statute?

A. Only the zoning map

B. Only the tax code

C. Only the lease contract

D. RA 9514 with its applicable implementing framework

19. A CNC is issued for a project. What does it not establish alone?

A. Exemption from all other environmental and project approvals

B. A coverage determination within its stated scope

C. The identity of the proposed project in the record

D. A document to be checked for relevance

20. A hazard map marks susceptibility near a property. What is the sound appraisal response?

A. Apply a universal 25% loss

B. Ignore the map always

C. Verify coordinates and limitations and investigate actual implications

D. Declare structural compliance

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	C
2	A	12	B
3	D	13	D
4	B	14	A
5	B	15	C
6	D	16	B
7	A	17	B
8	C	18	D
9	A	19	A
10	D	20	C

1. C A color is incomplete evidence. The enacted text, parcel location and applicable approvals must be established.

2. A A corridor has boundaries. Frontage designation does not by itself establish the entire deep lot's status.

3. D PD 1096 distinguishes construction approval from occupancy. Match actual scope, use and portions.

4. B The basic code states one year to commence, with a separate 120-day suspension/abandonment condition. Actual current status needs verification.

5. B An area allowance does not authorize departure from approved work. Section 304 and the operative process matter.

6. D Width is fourteen and depth forty-two; multiply for 588. Other controls remain separate.

7. A 900 × 0.55 = 495. Compare this footprint control with the relevant geometry and remaining requirements.

8. C FAR times the specified lot-area base gives the counted floor-area reference, not footprint or guaranteed rentability.

9. A 495 multiplied by three is 1,485, subject to the stated equal-plate assumption and remaining controls.

10. D 1,485 × 0.80 = 1,188. The efficiency assumption must be supported in an actual model.

11. C Use the union of overlapping restrictions, not their simple sum. The legal restriction still applies to its zone.

12. B Article 51 distinguishes three urban, twenty agricultural and forty forest meters. Classification and margin require evidence.

13. D Depth = 50 − 3 − 20 = 27; width = 14; area = 378. Do not subtract the nested five-meter band again.

14. A The area reference is not a certified arrangement. Circulation, geometry and other requirements still matter.

15. C The source gives the general 1:20 reference and conditional special-case treatment. Apply the complete requirements.

16. B 0.30 × 20 = 6 m, before required landings and other route features.

17. B Accessibility is continuous-route analysis, not a single ramp feature.

18. D RA 9514 supplies the later Fire Code framework. Technical requirements depend on operative rules and facts.

19. A EMB notes that CNC issuance does not exempt compliance with other environmental laws; it is not every project permit.

20. C Use map evidence with appropriate site and specialist information. It does not itself prove a fixed valuation adjustment or structural adequacy.

Worksheet model responses

Response 1

Obtain verified title and survey, road or easement instruments, zoning ordinance and maps with amendments, relevant conversion or exemption records, building permit and approved plans/amendments, completion and occupancy evidence, applicable fire and accessibility records, environmental screening documents, water-margin and hazard evidence, utility capacity and specialist site reports. Tie each to this parcel, proposal and date.

Response 2

Gross area = 20 × 40 = 800 sq m. Clear width = 20 − 2 − 2 = 16 m. Clear depth = 40 − 4 − 6 = 30 m. First geometry = 480 sq m. These supplied controls do not establish every allowable building footprint or final design.

Response 3

Coverage reference = 800 × 50% = 400 sq m, below the 480 sq m geometry. FAR reference = 800 × 1.5 = 1,200 sq m. Three full 400 sq m counted plates reach 1,200, so the supplied area references coincide. Parking, height, technical design and counted-area definitions can still reduce the actual outcome.

Response 4

Use 6 m for the union of the nested 3 m and 6 m bands, not 9 m. With the alternative 10 m rear band, depth = 40 − 4 − 10 = 26 m; width = 16 m; geometry = 416 sq m. On the supplied 50% coverage reference, 400 sq m remains the smaller footprint constraint.

Response 5

Original counted area = 1,200 sq m. Rentable at 75% = 900 sq m. Preliminary parking = 10 × 28 = 280 sq m. Neither an area allowance nor the gross uncovered balance establishes an approved layout. Test circulation, entry, accessible routes, fire access, overlapping restrictions and actual standards.

Response 6

Sloping run = 0.45 × 20 = 9 m. Review applicable width, landings, turning/door space, handrails, slip resistance, tactile features, connections and accessible facilities. The complete route and special-case conditions need the current source and appropriate design, not just a slope calculation.

Response 7

Verify the actual use and legal change-of-use/occupancy status, current zoning, approved amendments, structure and sanitation, accessibility, exits and the relevant BFP certification. Verify CNC scope and other environmental obligations. Record missing supplied evidence, obtain official verification and assess the material valuation consequence instead of assuming an old residential file proves present restaurant authority.

Response 8

Potential annual rent = 900 × PHP 400 × 12 = PHP 4,320,000. Effective income = PHP 3,672,000. Expenses = PHP 734,400. NOI = PHP 2,937,600. At 9%, indication = PHP 32,640,000. This is a supplied completed-income scenario; land residual needs supported development costs, timing and return within the selected method.

22 Essential terms and formula review

CLUP Comprehensive land use plan; read it with the enacted zoning framework.

Development envelope Space remaining under identified interacting controls, not a final permit.

Setback Separation from the correct legally defined boundary or reference line.

Site coverage Defined footprint divided by its specified site-area base.

FAR Defined counted floor area divided by its specified site-area base.

Rentable efficiency Defined rentable area as a proportion of its stated gross or counted base.

Occupancy The actual or proposed use classification and statutory occupancy status.

Public-use easement The legally defined restricted strip for the stated public-use purposes.

Accessible route Continuous usable connection through relevant arrival, circulation and facilities.

CNC Certificate of Non-Coverage within the environmental coverage framework.

Hazard screening Initial map evidence requiring relevant verification and interpretation.

Cost to cure Supported remedial scope and cost; not necessarily identical to value loss.

Exercise	Teaching formula
Rectangular envelope	(Width − side bands) × (Depth − front/rear bands)
Coverage reference	Specified area base × applicable coverage percentage
FAR reference	Specified area base × applicable FAR
Equal floor plates	Permitted plates × supported plate area
Rentable area	Defined base area × supplied efficiency
Ramp sloping run at 1:n	Rise × n, before landings and other features
Annual rent	Rentable area × monthly rate × 12
Income indication	Defined NOI ÷ corresponding capitalization rate

Use the correct area conventions and spatial union for restrictions. A formula result does not establish legal permission, structural suitability, accessibility, parking or final market value.

23 Sources and 2027 preparation status

Bracketed numbers identify the primary sources below. Statutory provisions and official-source concepts were reviewed on 12 October 2026. The study explanations, diagram and assessments are original. Hypothetical setbacks, coverage, FAR, storeys, efficiency, parking allowances, rents and rates are expressly supplied inputs, not verified nationwide requirements.

PD 1096 statutory text was verified through official Senate and Supreme Court repository indexed text, including the selected permit, occupancy and area-control provisions. Direct full-page retrieval was unreliable. This edition does not claim a clause-by-clause audit of the complete current NBC implementing and referral standards, professional signing authority or locality-specific controls.

The 2024 NCDA accessibility source and its Official Gazette attachment were located; selected accessible-ramp provisions were readable on the official page. The general 1:20 calculation is not a complete ramp design and special cases are not automatically granted. Current technical fire, environmental screening, easement demarcation, road, airport and structural requirements need their operative sources and actual site evidence.

The curriculum uses a provisional preparation baseline and does not assert confirmed 2027 PRC dates, detailed weights or revisions. Before examination and professional use, recheck the applicable local ordinance, updated national rules and official examination issuances. Keep historical statutory wording and current site approval status separate.

1 PD 1096

National Building Code, 19 February 1977. Selected sections 102–105, 301–305, 309, 701–707 and 802–803. Official Senate statutory text and Supreme Court repository indexed extracts; complete current IRR tables remain a separate check.

https://issuances-library.senate.gov.ph/legislative%2Bissuances/Presidential%20Decree%20No.%201096%2C%20s.%201977

2 RA 7160

Local Government Code, 10 October 1991. Section 20 supplies the reclassification and CLUP/zoning context, preserving the agrarian-law inquiry. Actual zoning controls require the specific enacted local text.

https://lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

3 RA 11201

14 February 2019. Selected sections 4–5 supply the DHSUD planning and regulatory framework; local and other agency functions remain relevant.

https://lawphil.net/statutes/repacts/ra2019/ra_11201_2019.html

4 PD 1067

Water Code, 31 December 1976. Article 51 supplies the stated public-use easement categories; selected articles 53–55 address flood-control considerations. Actual margin and legal status need verification.

https://lawphil.net/statutes/presdecs/pd1976/pd_1067_1976.html

5 BP 344

Accessibility Law, 25 February 1983. Statutory scope and requirements, read with current implementing material.

https://lawphil.net/statutes/bataspam/bp1983/bp_344_1983.html

6 NCDA 2024 accessibility material

Official revised-IRR page and linked Official Gazette PDF. Selected accessible-ramp provisions: 1,200 mm minimum clear width, general 1:20 gradient and additional route features and conditional special-case treatment.

https://ncda.gov.ph/revised-2024-rules-and-regulations-implementing-batas-pambansa-344/

7 RA 9514

Fire Code of the Philippines of 2008, 19 December 2008. Selected sections 5 and 7 and repeal provision. Detailed fire designs require the applicable current implementing text.

https://lawphil.net/statutes/repacts/ra2008/ra_9514_2008.html

8 PD 1586

11 June 1978. Selected sections 2 and 4–5 provide the environmental impact system foundation. Current project coverage and procedures require operative issuances.

https://lawphil.net/statutes/presdecs/pd1978/pd_1586_1978.html

9 EMB environmental coverage

Official CNC project-checker statement that issuance does not exempt compliance with other environmental laws. Screening must correspond to the actual project and location.

https://cnconline.emb.gov.ph/projectchecker/

10 HazardHunterPH limitations

Official map methods and disclaimers address source data, boundaries, coordinate discrepancies and scenario-based hazard evidence. Use with relevant field and specialist information.

https://hazardhunter.georisk.gov.ph/index.php/map

REALEX

Lesson 18

Local Property Assessment and Tax Principles

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Market value, assessed value and the annual tax bill are different amounts. This lesson teaches you to connect them correctly, identify the evidence behind each step and distinguish a valuation disagreement from an exemption claim, payment protest or assessment appeal.

The chapter follows the canonical curriculum objectives on the assessment ladder, actual-use classification, exemptions and procedural distinctions. It reads the Local Government Code together with RA 12001 and later tax-court legislation. It also connects recurring property tax with an appraisal and development model.

Harana Assessment File and all exercises are fictional original teaching work. Supplied component values, local levels, rates, discounts and financial assumptions are not verified requirements for a specific locality. Source notes distinguish checked law from detailed procedures and site-specific evidence requiring further verification.

Your learning goals

- Distinguish market value assessed value assessment level and tax rate.
- Reproduce a component assessment and basic plus SEF computation.
- Separate statutory ceilings from enacted local levels and rates.
- Explain actual use alongside zoning and highest and best use.
- Distinguish a special class from a tax exemption.
- Identify the documentary support for an exemption claim.
- Compare basic RPT SEF idle-land tax and public-works special levy.
- Reconcile installments discounts credits and simple delinquency interest.
- Identify the assessment-notice and payment-protest trigger events.
- Explain why an assessment appeal does not itself suspend collection.
- Recognize the later CTA review framework and date-specific reform rules.
- Connect recurring tax and historic arrears with their different appraisal roles.

Study plan: Allow four to five hours over two sessions. Read sections 1–8 for the assessment and evidence framework, then sections 9–16 for dates, remedies and valuation consequences. Attempt the ten worked cases, two-page worksheet and twenty-question test before checking the model responses.

1 The assessment ladder

Real property taxation begins with identifying the property and its taxable status. It then requires a supportable value, the applicable assessment level and the tax rate. These are separate decisions. A percentage that reduces market value to assessed value does not describe the annual tax rate. A tax payment does not establish the property's selling price. Keep each amount on its own step of the assessment ladder.

RA 12001 defines assessed value as market value multiplied by the corresponding assessment level. Its definitions and reform purposes separate valuation from tax policy and administration. Read the surviving Local Government Code provisions together with the later law. The original wording in an old reviewer may remain useful historical material, but it is not automatically the operative rule for a present transaction. [1, 2]

For a single taxable component, write AV = MV × AL, where AV is assessed value, MV is the applicable market value and AL is the assessment level expressed as a decimal. Then write basic RPT = AV × r, where r is the applicable basic tax rate. The result is an annual basic tax before any other levy, relief, discount, delinquency interest or adjustment. If a levy has a different base or a special statutory computation, calculate it separately.

The original Harana Assessment File supplies land market value of PHP 6,000,000 and a 50% assessment level. Assessed land value is PHP 3,000,000. The file separately supplies a building market value of PHP 8,000,000 and a 75% level, giving assessed building value of PHP 6,000,000. Total assessed value is PHP 9,000,000. At a stipulated city basic rate of 2%, basic RPT is PHP 180,000. A stipulated 1% SEF levy is PHP 90,000. The combined annual amount is PHP 270,000 before other items.

This example uses expressly supplied rates and classification. It does not establish any actual locality's assessment or tax policy. Its effective combined burden on the PHP 14,000,000 component market-value total is 270,000 ÷ 14,000,000 = 1.9286%. That percentage is an analytical ratio for this file, not a statutory rate that may be applied to every property.

Component	Market value PHP	Level	Assessed value PHP
Land	6,000,000	50%	3,000,000
Building	8,000,000	75%	6,000,000
Total	14,000,000	Separate	9,000,000

The sequence matters when reviewing an assessment. An incorrect market value can produce the wrong tax even if both percentages are correct. An incorrect actual-use class can produce the wrong assessment level even if the unit market value is supported. A correctly calculated assessment can still require an exemption inquiry or date-specific relief. Identify the disputed step before proposing a remedy.

Step	Question	Harana exercise
1 Identify	Which parcel components use and date?	Land and building separately
2 Value	What is the applicable market-value base?	PHP 6m land and PHP 8m building
3 Assess	Which level applies to each component?	50% land and 75% building
4 Levy	Which tax rate applies to assessed value?	2% basic and 1% SEF
5 Reconcile	Which relief credits and payment terms?	Investigate separately

2 Valuation evidence and the tax record

A tax declaration is an assessment record. Read its parcel identity, declared person, land and building descriptions, actual-use class, market-value entries, assessment levels, assessed values and effectivity information. Match these with the survey, title where available, permits, leases and actual inspection. A tax declaration can contain an obsolete description or omit a later improvement; its official form does not remove the need to check its facts.

A private appraisal and an assessor's record can show different figures because they concern different dates, property conditions, interests or valuation inputs. Investigate the cause rather than concluding that the lower figure must be the true value. A historical assessment entry is not necessarily current market evidence. Conversely, an independently supported current appraisal does not itself revise an assessment roll or cancel a tax bill.

Tax declarations and realty-tax payments are evidence relevant to a claim of ownership or possession, but they do not by themselves conclusively prove title. The Supreme Court has repeatedly distinguished their evidentiary role from conclusive proof. Their significance depends on the other evidence and the legal issue. A buyer should not treat years of receipts as a substitute for resolving the ownership interest and exact parcel. [3]

Consider a fictional roadside building advertised at PHP 25,000,000, with an older assessment market-value entry of PHP 7,000,000 and a taxable value of PHP 3,500,000. These figures answer different questions. The asking price is the seller's proposal, the assessment entry belongs to its administrative valuation regime and date, and the taxable value reflects the assessment percentage. None alone proves the price at which informed market participants would transact today.

A tax clearance also has a defined scope and date. Verify which parcel and improvement declarations it covers, which tax periods were checked and whether other assessments or pending revisions exist. A receipt for the land declaration may not prove payment for a separately declared building. A current installment receipt may not establish that earlier arrears have been settled. Request the treasurer's itemized account when the history is material.

For an appraisal file, retain the tax documents as evidence of identification, recorded attributes and potential obligations. Explain unresolved discrepancies and their effect on the assignment. Avoid adopting assessed value as market value simply because it is readily available. The purpose of a valuation is to analyze the defined interest, date and basis using relevant evidence, not to reproduce an administrative subtotal.

3 Who values who sets policy and who collects

The assessor discovers, lists, classifies, appraises and assesses property within the relevant administrative framework. The local sanggunian adopts tax policy through the applicable ordinances, subject to statutory powers and limits. The treasurer collects taxes and handles collection functions and the relevant payment protest. BLGF leads the implementation of RA 12001's valuation reform; the Secretary of Finance has the statutory certification role for the SMV. These functions interact without becoming interchangeable. [1, 2]

Section 198 of RA 7160 includes actual-use classification, uniform classification within each LGU and equitable appraisal and assessment among the fundamental principles. It also states that the public appraisal, assessment, levy and collection functions shall not be let to a private person. Private appraisers may provide professional opinions or support within an authorized role; their reports do not confer the assessor's or treasurer's statutory authority. [1]

In an ordinary municipality outside Metropolitan Manila, do not assume that a municipal collection counter makes the city-style basic-rate ceiling applicable. Section 233 distinguishes the provincial regime from cities and municipalities within Metropolitan Manila. Local offices may receive payment within the provincial framework. Locate the property's taxing jurisdiction and the operative ordinance before selecting a rate.

Harana's exercise stipulates a city jurisdiction. If the same assessed total of PHP 9,000,000 were instead subject to a supplied provincial basic rate of 1% and a supplied SEF levy of 1%, the annual sum would be PHP 180,000. The difference from the city exercise is a rate-policy result; it does not imply that the land or building suddenly lost market value.

For a disputed unit value, begin with the assessor's valuation evidence and notice. For a wrong credit allocation or claimed delinquency, obtain the treasurer's ledger and receipts. For an alleged illegal ordinance, examine the ordinance and its distinct challenge route. Sending every issue to the same office without identifying the decision can waste time and leave the relevant period running.

A sound public assessment system preserves a record of how facts become values, classifications, assessed amounts and bills. A reviewer should be able to reproduce the computation and identify its authority. An unexplained figure or missing effective date is a reason to obtain the underlying documents, not a reason to invent a convenient assumption.

4 Actual use and property classes

RA 7160 identifies residential, agricultural, commercial, industrial, mineral, timberland and special property classes for assessment. Section 217 requires classification, valuation and assessment by actual use regardless of location, ownership or user. Its actual-use definition concerns the purpose for which the property is principally or predominantly utilized by the person in possession. [1]

Actual use for assessment is related to, but distinct from, zoning permission and highest and best use. Zoning asks which uses and controls the planning framework permits. Highest and best use evaluates legally permissible, physically possible, financially feasible and maximally productive alternatives. Actual-use assessment concerns the property's relevant present utilization under the governing rules. An appraiser should not silently substitute one test for another.

Suppose a parcel in a commercial corridor is still principally used for crop production. The corridor designation does not alone establish commercial actual-use assessment. Inspect the activity and obtain the assessor's operative classification guidance. If the owner opens a commercial storage facility, the use and date must be

investigated. A change in the tax declaration does not itself authorize agrarian conversion or cure missing building and occupancy approvals.

Ownership labels can also mislead. A corporation may own a house used as a dwelling; a private individual may own an industrial facility. Ask what the property is used for and whether a special statutory treatment applies. The owner's profession, corporate name or intended future business is not an adequate substitute for the physical and legal evidence.

Mixed-use property requires careful identification of components and the relevant classification rules. A building with shops below and residential units above should not automatically receive a blended level invented by the appraiser. Obtain the assessor's applicable method, descriptions, floor-use evidence and valuation allocation. The principal or predominant use inquiry and any permitted separate assessment must be grounded in the operative framework.

An original simplified exercise can expressly supply a separated schedule: residential component MV PHP 4,000,000 at 40% and commercial component MV PHP 3,000,000 at 70%. The assessed components are PHP 1,600,000 and PHP 2,100,000, totaling PHP 3,700,000. This demonstrates component arithmetic only. It does not establish that an actual mixed-use building may be divided in precisely that manner without the relevant assessment rules.

5 Assessment levels and statutory ceilings

An assessment level converts the relevant market value into taxable value. The operative local ordinance determines the applicable level within statutory limits and the later reform framework. Do not describe every percentage printed in section 218 as a mandatory nationwide rate. Its introductory provision expressly sets maximum levels rather than a command that every LGU use the maximum. RA 12001 also addresses the continued observation of the maximum levels in its transition provision. [1, 2]

For ordinary land classes, the section 218 reference ceilings are residential 20%, agricultural 40%, commercial 50%, industrial 50%, mineral 50% and timberland 20%. A commercial land level of 50% is not a commercial basic tax rate. A local level below the ceiling can produce a lower assessed amount without altering the market-value estimate.

Ordinary land class	Section 218 reference ceiling
Residential	20%
Agricultural	40%
Commercial	50%
Industrial	50%
Mineral	50%
Timberland	20%

Building ceilings depend on class and the applicable whole-property value bracket. For residential structures, the statutory bands range from 0% at values not over PHP 175,000 to 60% above PHP 10,000,000. Commercial and industrial structures range from 30% at values not over PHP 300,000 to 80% above PHP 10,000,000. The residential and commercial tables are different, and land does not use the building bands.

Where the applicable local schedule adopts the statutory residential brackets, a residential building valued at PHP 500,000 falls in the band over PHP 300,000 but not over PHP 500,000, at 20%. A value of PHP 500,001 moves into the next band at 25%. The level applies to the building's relevant whole value rather than progressively taxing the slices as income-tax brackets. At the supplied levels, assessed values are PHP 100,000 and PHP 125,000.25. Read the boundary words exactly.

This threshold effect does not authorize manipulating the valuation to obtain a preferred tax outcome. A supported market-value estimate should come from evidence. If a bracket creates a policy concern, that is a separate tax-policy issue. Valuation and taxation are distinct functions under the reform, so a tax target cannot justify an unsupported value.

Residential building value PHP	Reference ceiling
Not over 175,000	0%
Over 175,000 to 300,000	10%
Over 300,000 to 500,000	20%
Over 500,000 to 750,000	25%
Over 750,000 to 1,000,000	30%
Over 1,000,000 to 2,000,000	35%
Over 2,000,000 to 5,000,000	40%
Over 5,000,000 to 10,000,000	50%
Over 10,000,000	60%

Table note: The upper endpoint is included in each bounded band; the lower endpoint is excluded. These are statutory reference maxima for residential structures, not proof of an actual LGU's adopted levels. Commercial, industrial and other classes have separate schedules. [1, 2]

Special-class and machinery levels require their own rules. A building that qualifies for a special class is not automatically exempt, and machinery is not automatically assigned the land's percentage. For a supplied industrial machinery value of PHP 1,500,000 at 80%, assessed value is PHP 1,200,000. Add that amount to the correct components only after establishing taxable status and avoiding duplication.

6 Exemption and special classification

A tax exemption removes liability within its lawful scope; a reduced assessment level merely lowers the taxable base. Section 216's special classes and section 234's exemptions must therefore be read separately. Hospitals, cultural or scientific properties and relevant public-service entities have specific special-class provisions. A hospital classification does not mean that every hospital property is exempt from RPT. [1]

The religious, charitable and educational exemption calls for the statutory actual, direct and exclusive use inquiry. An institution's name or registration does not establish that every parcel and every part of its building qualifies. Investigate the actual activities, occupiers, leases, floor allocation and dates. An exemption claim

involving different uses requires the applicable legal treatment and factual evidence, rather than a whole-property assumption.

Consider a fictional institution with classrooms in one building and a separately leased retail warehouse on another parcel. Its educational activity does not by itself answer the retail parcel's exemption status. The retail use needs its own analysis. Do not convert this exercise into a legal ruling on a real organization without its governing laws, records and current jurisprudence.

Government ownership also requires attention to beneficial use. Section 234(a) contains an exception where beneficial use is granted to a taxable person, for consideration or otherwise. A privately operated commercial facility on public land is therefore not resolved solely by reading the government owner's name. Examine the rights granted, use, taxing provisions and applicable decisions.

Section 206 requires sufficient documentary support for an exemption claim within thirty days from the declaration. Its stated examples include charters, title evidence, incorporation documents, contracts, affidavits and certifications. If evidence is not submitted within the period, the property is listed as taxable; the provision also permits correction when exemption is proved. Keep the proof and the administrative action in the file rather than relying on a verbal assurance. [1]

RA 12001 section 14 requires valuation of taxable and exempt real properties based on prevailing locality market values in conformity with PVS. Exempt does not mean valueless or absent from the property inventory. Exemption affects the tax treatment, while valuation still supports administration, reporting and other purposes. Preserve that distinction in both legal and numerical examination answers. [2]

7 Basic tax and additional levies

Section 233 provides a basic RPT ceiling of 1% of assessed value for provinces and 2% for cities and municipalities within Metropolitan Manila. Section 235 authorizes an additional annual 1% levy on assessed value for the Special Education Fund. Verify the operative local levy instead of assuming that the combined 2% or 3% shorthand is universally applicable. [1]

In the Harana city exercise, the basic and SEF amounts use the same stipulated assessed total. The combined 3% of assessed value produces PHP 270,000. It does not mean 3% of the PHP 14,000,000 market-value total. The latter erroneous computation would give PHP 420,000, overstating the exercise by PHP 150,000.

Idle-land tax is a separate additional levy, authorized at a rate not exceeding 5% of assessed value. Its coverage tests, ordinance, exemptions and notice must be investigated. An unbuilt parcel is not automatically a taxable idle parcel. Agricultural and nonagricultural criteria differ, and individually owned residential subdivision lots have a separate coverage rule. [1]

As a learning example, a nonagricultural parcel of 1,500 sq m is stipulated to meet the coverage and notice requirements, with assessed value PHP 2,000,000 and an enacted idle levy of 3%. The additional annual levy is PHP 60,000. It should be displayed beside the basic and SEF amounts rather than hidden inside a supposed universal rate. If the file only says "vacant," the classification and liability remain unproved.

The special levy for land especially benefited by LGU-funded public works is different again. Section 240 limits the levy to 60% of the actual project and improvement cost, including relevant land acquisition. The percentage is a limit on the recoverable project-cost amount, not an instruction to tax each benefited parcel at 60% of its market value. The ordinance, benefited district, assessment allocation and installment provisions govern the parcel's charge. [1]

For a stipulated PHP 10,000,000 qualifying project, the aggregate statutory ceiling is PHP 6,000,000. If the exercise states that PHP 4,000,000 is lawfully apportioned across benefited land and that Harana's assessed-

value share is 5%, its total allocated levy is PHP 200,000. At five equal annual installments stipulated by the ordinance, each is PHP 40,000. The actual statute requires the ordinance's installment span to be between five and ten years. Do not add this total allocation to a single annual bill without checking timing.

8 Discovery declarations and changes

The assessment process includes identifying land, buildings, improvements and potentially taxable machinery. An undeclared improvement can still be discovered and assessed. Failure to declare is not an exemption. Section 203 requires the person acquiring real property or making an improvement to file the specified sworn statement within sixty days after acquisition or upon completion or occupancy of the improvement, whichever occurs earlier. [1]

Separate the acquisition event from the title-registration event. Do not assume the duty begins only when the buyer finally collects a new certificate of title. For improvements, an occupied but unfinished structure also raises an evidence issue: occupancy can precede final completion. Identify the relevant event and the operative forms, rather than postponing the record update indefinitely.

An assessment roll can list property in the name of the owner, administrator or another person with legal interest. Section 205 addresses estates, undivided co-ownership and taxable beneficial use. Those listing provisions facilitate administration; they do not independently settle every ownership dispute. A name on the roll should be matched with conveyance, estate and title evidence before an appraisal defines the interest.

New or revised assessment also involves written notice. Section 223 requires notice within thirty days when a property is first assessed or its existing assessment is increased or decreased. Preserve the actual receipt date, notice contents, envelope or acknowledged service and underlying worksheets. A document's issue date and the taxpayer's receipt date can differ, which matters for a receipt-triggered appeal period. [1]

Section 221's ordinary rule makes assessments or reassessments after January 1 effective on January 1 of the succeeding year. Its specified abnormal-cause exceptions include destruction and major actual-use change, with reassessment and quarterly effectivity rules. Do not force every change into the ordinary annual rule. The operative cause, reassessment date and applicable exception must be identified.

RA 12001 expressly repeals the old section 219 general-revision provision and establishes its own general-revision framework. This means the familiar "every three years" answer needs its correct surviving source and context. A periodic-revision cycle does not forbid all intervening recognition of new improvements or actual-use changes. The later law, relevant notice and specific change rules must be read together. [2]

9 Dates payment and delinquency

RPT accrues on January 1 under section 246. Accrual is not identical to the last date for each permitted installment. Section 250 allows the basic and SEF amounts to be paid without interest in four equal installments due by March 31, June 30, September 30 and December 31. Other levies can have different ordinance-based payment schedules. [1]

Harana's stipulated annual combined basic and SEF amount of PHP 270,000 gives four installments of PHP 67,500. A taxpayer who follows the authorized schedule should not be charged interest merely because the whole year's amount was not paid on January 1. Conversely, the fourth-quarter due date does not allow all earlier installments to remain unpaid without consequences.

Section 251 permits a local ordinance to grant an advance-payment discount not exceeding 20% of annual basic and SEF tax due. The discount is not automatic. Check the enacted percentage, covered taxes, qualifying

payment date, delinquency conditions and procedure. A sign advertising an old discount does not establish its application to a current payment.

If the exercise supplies a lawful 15% discount on the entire PHP 270,000 combined amount and states all conditions are met, the discount is PHP 40,500 and payment is PHP 229,500. If only a particular item is eligible, apply the discount to that item. Do not discount arrears, interest or a special levy without express authority.

Section 255 imposes delinquency interest at 2% per month or fraction thereof on unpaid tax, with total interest limited to thirty-six months. For the simple supplied interval of four chargeable months on an unpaid PHP 67,500 installment, interest is 67,500 × 2% × 4 = PHP 5,400. The principal plus interest is PHP 72,900, before any separately supported expenses. This is simple statutory interest in the exercise, not monthly compounding. [1]

An actual arrears account needs installment-specific aging, applicable due dates, payments, credits and any lawful relief. Applying one number of months to every year or installment can overstate or understate the bill. Section 250 also directs payments first to prior delinquencies, interests and penalties before the current period. Reconcile receipts to the ledger rather than assuming the taxpayer's intended label controls allocation.

10 Notices and the type of dispute

A valuation disagreement, an assessment appeal, a payment protest, a refund claim and an ordinance challenge are different inquiries. They can arise from the same property file, but they concern different acts and triggers. An appraiser's first contribution is to explain which fact or computation is disputed and preserve the relevant evidence. [1]

A written assessment notice may assert the value, class and assessed amount. A treasurer's bill may add the levy calculation, outstanding periods and payment history. A delinquency notice concerns overdue amounts and collection consequences. A sale advertisement involves enforcement against the property. Do not call them all "the assessment" and then select a deadline from memory without identifying the document.

Harana receives a new assessor notice showing building area of 1,400 sq m. Its approved and measured evidence instead supports 1,000 sq m, subject to final verification of area conventions. This is a property-fact and valuation issue. Harana separately receives a bill that ignores an earlier credited payment. That is a ledger or collection issue. The evidence needed for each objection differs.

A market-value report can support an assessment appeal where its scope, date, assumptions and evidence are relevant. It is not an order directing the assessor or treasurer to amend the records. State whether the opinion addresses the operative assessment date and property condition. An unrelated refinancing report with assumed completion may be poor evidence for the actual assessed property.

Do not import section 195's general local-tax protest route into every RPT case. Title II has specific real-property assessment and payment provisions. A question about the legality of the LGU's authority can also differ from a disagreement about an assessment made under that authority. Actual litigation requires the proper route under the applicable laws, procedural rules and jurisprudence. The chapter's comparisons teach distinctions rather than deciding every jurisdictional exception.

The best examination answer usually identifies the challenged act, responsible office, written-notice or payment trigger and the appropriate statutory route. Preserve the dates while the evidence is obtained. A request for explanation or an informal conversation should not be assumed to stop a statutory filing period.

Document or event	Primary inquiry
Assessor notice	Value class assessed amount and effectivity
Treasurer bill and ledger	Levies periods payments credits and arrears
Payment under protest	The paid disputed tax and statutory protest
Exemption evidence	The legal and factual exemption claim
Ordinance	Authority scope policy and effective date
Private appraisal	Independent value evidence for the defined scope

11 Assessment appeals and payment protests

Under section 226, an owner or person with legal interest dissatisfied with the assessor's action may appeal to the LBAA within sixty days from receipt of the written assessment notice. The provision requires a petition under oath in the prescribed form, with tax declarations and supporting affidavits or documents. A bare letter saying "too high" is not the complete evidentiary model contemplated by the provision. [1]

Section 229 provides a thirty-day period after receipt of the LBAA decision for appeal to the CBAA. Although the original Code describes the CBAA decision as final and executory, this must not be taught as the elimination of judicial review under later law. RA 9282 gives the Court of Tax Appeals exclusive appellate jurisdiction over CBAA decisions in its amended section 7. The current procedural rules govern the judicial step. [1, 4]

Section 231 states that an assessment appeal does not suspend collection of the assessed realty taxes, without prejudice to adjustment after the outcome. An appeal is not an automatic permission to stop payment. Keep the collection obligation and the challenge procedure distinct, and consider the payment-protest requirements relevant to the actual issue.

Section 252's ordinary payment-protest route requires first paying the tax, annotation of the receipt as paid under protest and a written protest within thirty days from payment to the specified treasurer. The treasurer has sixty days from receipt to decide. Denial or lapse of that period leads to the remedies referred to in the assessment-appeals chapter. The thirty-day payment trigger differs from the sixty-day assessment-notice trigger. [1]

Section 253 separately addresses a written claim for refund or credit when an assessment is found illegal or erroneous and adjusted. Its two-year period runs from entitlement to the reduction or adjustment; it is not safely replaced with a universal "two years from any payment" formula. The section provides a sixty-day treasurer decision period and a referred remedy on denial. Identify the provision and facts before counting.

For study purposes, build a chronology with separate rows for assessment-notice receipt, tax payment, written protest receipt and decision receipt. Enter each applicable statutory period against its own event. Do not add the periods into one long automatic waiting allowance. The existence of multiple possible routes does not justify missing the earliest applicable action.

Route or act	Statutory trigger	Basic period
LBAA assessment appeal s226	Written assessment-notice receipt	60 days
CBAA appeal s229	LBAA decision receipt	30 days
Written payment protest s252	Tax payment	30 days
Treasurer protest decision s252	Written protest receipt	60 days
Refund claim s253	Entitlement to reduction or adjustment	2 years

The routes are not one combined waiting period. Specific facts, jurisdiction and current procedure must be checked. CTA review of CBAA decisions is recognized by RA 9282. [1, 4]

12 Exemption and classification case evidence

An exemption claim should identify the exact property or portion, the legal source and the factual use supporting it. An actual-use classification objection should identify the use evidence and the disputed classification entry. A market-value objection should identify the valuation defect. These grounds may overlap, but each needs a clear explanation rather than an unsupported conclusion that all taxation is unfair.

For a fictional clinic, obtain the title or lease, operating evidence, room-use plans, entity documents and applicable tax records. Ask whether the claim concerns special hospital classification, charitable-use exemption, a particular machinery exemption or another statutory provision. The word “clinic” does not establish which treatment is correct.

A church-owned parcel leased as a commercial parking business requires a specific inquiry into actual use and relevant rights. A public university parcel with private commercial concessions also requires the applicable exemption and beneficial-use analysis. Neither example should be answered solely by the owner’s institutional identity. The operative law may provide distinctions that depend on actual facts.

Unused land introduces another distinction. Nonuse may matter to idle-land coverage and its exceptions, but it does not automatically establish exemption from basic RPT. A legal prohibition on improvement can require investigation under the idle-land exception framework. A difficult access road or weak demand is not, without the relevant evidence and authority, an automatic waiver of taxes.

Assessment classifications do not cure land-tenure or planning defects. An agricultural tax declaration cannot by itself prove that DAR restrictions apply or have expired; a commercial tax declaration cannot by itself prove conversion approval. Carry the Lesson 16 and Lesson 17 document distinctions into the tax file. Fiscal records, property rights and development approvals each have a defined function.

A useful professional evidence note states the present recorded class, inspected use, known permissions and outstanding verification. It then explains whether a change is requested, assumed or already approved. This prevents a reader from mistaking a provisional calculation for an operative reassessment or official exemption determination.

13 Applying the reform without inventing its rollout

RA 12001 promotes a common market-value base and standards-based valuation while separating valuation from tax policy. Its SMV preparation, review, certification, publication and general-revision provisions form the later framework. Lessons 20–22 examine those institutions, processes and transition provisions in depth. Here the essential task is to avoid using superseded provisions or assuming every LGU has completed the same stage. [2]

For an actual property, obtain the applicable SMV, certification and effectivity evidence, the operative assessment-level and levy ordinances, and the assessment notice. An old schedule, a draft consultation schedule and an effective certified schedule are not interchangeable. A national implementation target is not proof that the new values have become operative for the parcel in question.

Section 29 contains a first-year limit on increases in real property taxes under the approved SMV framework, with its specified prior-tax baseline. The cap applies to each type of RPT, including SEF, idle-land tax and other special levies. It is a tax-increase cap, not a cap on market-value appreciation or an instruction to reduce all values by 6%. The LGU may enact a cap for succeeding years. [2]

A simplified eligible first-year exercise stipulates prior basic tax PHP 100,000, prior SEF PHP 50,000 and raw revised amounts PHP 140,000 and PHP 70,000. At a 6% maximum increase for each type, the capped exercise amounts are PHP 106,000 and PHP 53,000, totaling PHP 159,000. The raw revised total of PHP 210,000 is not payable under those stipulated cap conditions. Establish eligibility and baseline before using this model in an actual file.

The original section 30 amnesty concerns penalties, surcharges and interest on covered pre-effectivity unpaid RPT and specified levies; it does not cancel their principal. It also excludes the specified auctioned properties, compromise-agreement delinquencies and pending court cases. The original two-year availment window was identified by official implementation material as ending July 5, 2026. [2, 5, 6]

This chapter is researched on October 12, 2026, after that original window. No extension is assumed. A historical case can ask what qualifying relief would have done during timely availment, but a current taxpayer needs authority for any presently available relief. RPT amnesty is also distinct from estate-tax amnesty, which concerns a different tax. Do not confuse an estate-tax announcement with an extension of section 30.

14 Tax liens and transaction review

Sections 246 and 257 give RPT and related levies a lien on the property with the statutory priority and collection consequences. A change of owner does not by itself erase an outstanding property-tax obligation. A sale contract can allocate the economic burden between buyer and seller, but that allocation does not bind the LGU to abandon its lawful collection rights. [1]

Before a purchase, reconcile the land and improvement identifiers, certified tax records, treasurer’s account, current notices, pending changes and title annotations. A single receipt or seller’s assurance may leave unresolved arrears, undeclared additions or another component declaration. State which evidence is missing and how it affects the acquisition decision.

A sale agreement may prorate current annual tax at closing. If an original exercise supplies annual tax PHP 120,000 and assigns five months to the seller, the seller’s share is PHP 50,000 and the buyer’s seven-month share is PHP 70,000. This contractual allocation does not change the statutory annual assessment or erase prior arrears. Identify whether the current tax has already been paid and who receives the corresponding reimbursement.

Arrears, redemption costs, interest and recurring annual taxes have different economic roles. Historic arrears can require settlement at closing or a contractual holdback. Future recurring tax belongs in the relevant property cash-flow analysis. A supported legal defect or enforcement risk may require more than subtracting the face amount of a bill. The property interest, scope of valuation and market evidence govern the conclusion.

Tax enforcement can involve levy, advertisement, auction and statutory redemption. These procedures are not equivalent to an ordinary voluntary sale. A low auction price alone is not automatically a market-value comparable. Investigate the rights conveyed, procedural compliance, redemption status and exposure conditions before using the transaction as evidence.

The chapter does not supply a complete auction or redemption practice manual. For a real enforcement event, obtain the notices, warrant, advertisement, sale documents and current procedural advice. For examination purposes, remember that nonpayment can affect the interest itself and that an ordinary valuation opinion does not stop enforcement.

15 Taxes in an appraisal and development model

Recurring property tax can influence the net operating income of an income-producing property. Its treatment must match the leases, cash-flow definitions and capitalization-rate evidence. An owner-borne tax deducted from NOI should not also be deducted again from the resulting value as if it were a second annual liability. Separate recurring expense from a one-time arrears settlement.

A fictional property generates PHP 1,500,000 of annual operating income before owner-borne RPT. At recurring tax PHP 180,000, simplified NOI is PHP 1,320,000. At a supplied 8% capitalization rate consistent with that NOI, the indication is PHP 16,500,000. If a supported recurring tax assumption rises to PHP 240,000 with all other exercise inputs fixed, NOI becomes PHP 1,260,000 and the indication PHP 15,750,000. The difference of PHP 750,000 equals the PHP 60,000 annual change divided by 8%.

This sensitivity holds the rest of the simplified model constant. An actual market response may also involve rent recovery, reassessment timing, temporary caps, lease provisions, investor expectations and capitalization-rate changes. It is not a universal rule that every tax increase reduces price by precisely the capitalized amount.

If a lease requires tenants to reimburse taxes, analyze the legal recovery terms, collection risk and relevant market practice. A reimbursable expense should be reflected consistently in both revenue and expense. Do not delete the expense while retaining its recovery income or deduct both a net expense and the gross tax without reconciliation.

A development feasibility model should distinguish holding-period land tax, completed-building tax, taxable machinery, timing of new assessments and any documented relief. Taxes on the existing site may differ from those after development. A constant historical bill carried across every forecast year can understate future costs. Use clear scenarios where rollout, classification or values remain uncertain.

For a cost engineer or appraisal reviewer, trace forecast changes to observable events: acquisition, improvement, occupancy, actual-use change, operative schedule and lawful levy. Link the estimate to the responsible evidence owner. A model is more useful when a reader can see which inputs are verified, provisional or supplied for sensitivity analysis.

16 A complete assessment review

Begin the file with the parcel, interest, valuation or assessment date and decision to be supported. List each component and identify the records supporting its area, use, value and taxable status. Establish the effective schedule and local policy before computing the annual bill. Keep the original notice and date evidence beside the calculation.

For each taxable component, show market value, assessment level and assessed value. For each levy, show its base, rate or allocation method and amount. Then reconcile qualifying relief, advance-payment discounts, credits, installment timing, unpaid principal, interest and expenses. The final payable amount should be explainable from the records rather than a single unexplained total.

If an objection is necessary, identify whether it concerns property facts, actual use, valuation, exemption, levy authority or collection accounting. Name the challenged act and route, preserve the relevant event date and assemble evidence suited to that issue. An independent appraisal may assist with valuation, but it does not replace a statutory protest or appeal.

Harana's core file therefore has at least three different outputs: an assessment computation, an evidence and discrepancy note, and a procedural chronology. A fourth output may be an appraisal or development sensitivity using recurring tax. None should be relabeled as the others. This separation allows another professional to review both the calculation and its practical consequences.

For examination revision, explain why each wrong answer is wrong. Did it apply the tax rate to market value, use the land level on the building, assume exemption from ownership, ignore the local ordinance or start the period from the wrong event? A correct letter without that diagnosis is less useful for a new scenario.

Lesson 19 moves to national real-property transaction taxes. Carry forward the distinction between a value base and a tax rate, but do not transfer the RPT assessment ladder mechanically to CGT, VAT, withholding, documentary stamp, estate or donor taxes. Each tax has its own category, taxable event, base and operative rules.

17 Ten worked assessment cases

Attempt each question first. Show the component base, applicable percentage and relevant event. Local levels, rates and eligibility are supplied exercise facts, not official determinations for a real property.

Case 1 Separate land and building

Question: A city file supplies land MV PHP 6,000,000 at AL 50%, building MV PHP 8,000,000 at AL 75%, basic rate 2% and SEF 1%. Compute the annual basic and SEF amounts.

Solution: Land AV = 6,000,000 × 50% = PHP 3,000,000. Building AV = 8,000,000 × 75% = PHP 6,000,000. Total AV = PHP 9,000,000. Basic = PHP 180,000; SEF = PHP 90,000; combined = PHP 270,000.

Reasoning: The two assessment levels apply before either levy rate. The PHP 14,000,000 market-value total is not the direct base for these rates. The local inputs are stipulated for the exercise.

Case 2 Read the boundary correctly

Question: An adopted residential-building schedule supplies 20% for values over PHP 300,000 but not over PHP 500,000 and 25% for values over PHP 500,000 but not over PHP 750,000. Compare buildings valued at PHP 500,000 and PHP 500,001.

Solution: The first AV is 500,000 × 20% = PHP 100,000. The second is 500,001 × 25% = PHP 125,000.25.

Reasoning: The value band selects a level applied to the whole relevant building value. This is not a marginal income-tax calculation. A supported valuation must not be manipulated to avoid a threshold.

Case 3 Recorded zone and inspected use

Question: A parcel lies in a commercial zone but is principally used for crop production. An owner asks the appraiser to select commercial actual-use assessment solely from the zoning map. What should the appraiser do?

Solution: Document the actual activity, review the applicable assessment classification and obtain the assessor’s supporting records. Keep zoning permission, actual-use assessment and agrarian conversion separate.

Reasoning: Section 217 requires actual-use assessment. A future permitted or proposed use does not by itself prove the present tax class; neither tax classification nor a map replaces required development approvals.

Case 4 Special does not mean exempt

Question: A privately owned for-profit hospital requests zero RPT because hospitals appear in the special-class provision. No separate exemption is supplied. Is zero tax established?

Solution: No. Investigate the actual, direct and exclusive hospital use for the special class, the operative level and any separately supported exemption. Do not infer zero liability from the special-class entry.

Reasoning: Special classification concerns assessment treatment. Exemption requires its own legal and factual basis. Ownership and the word hospital do not alone decide every relevant tax issue.

Case 5 Discount and installments

Question: Use the stipulated annual basic plus SEF amount of PHP 270,000. A valid 15% discount covers both items and all conditions are met. Compare discounted advance payment with four equal undiscounted installments.

Solution: Discount = PHP 40,500; advance payment = PHP 229,500. Each undiscounted installment = PHP 67,500.

Reasoning: The discount is supplied as lawfully adopted and applicable. It is not an automatic nationwide entitlement. The exercise does not discount arrears or other levies.

Case 6 Delinquency aging

Question: An unpaid installment of PHP 67,500 has four chargeable months under the stipulated section 255 computation. No relief or other expense applies. Compute principal plus simple interest.

Solution: Interest = 67,500 × 2% × 4 = PHP 5,400. Principal plus interest = PHP 72,900.

Reasoning: Age the particular unpaid installment from its correct due date. The exercise uses simple interest, not compounding. An actual bill needs all payments, credits, periods and lawful relief reconciled.

Case 7 Identify two procedural clocks

Question: A taxpayer disputes the assessor's revised value and later pays a disputed tax under protest. Which events trigger the basic section 226 and section 252 filing periods? Does the assessment appeal itself stop collection?

Solution: Section 226: sixty days from receipt of the written assessment notice for the LBAA petition. Section 252: thirty days from tax payment for the written payment protest to the specified treasurer. Section 231 says the assessment appeal does not suspend collection.

Reasoning: The challenged acts, offices and trigger dates differ. Preserve both event records and comply with the applicable routes; an informal request should not be assumed to stop either period.

Case 8 Eligible first-year tax cap

Question: Assume the RA 12001 first-year cap applies, with the correct prior-tax baselines supplied as basic PHP 100,000 and SEF PHP 50,000. Raw revised basic is PHP 140,000 and SEF PHP 70,000. Calculate the capped exercise amounts.

Solution: Basic maximum = 100,000 × 1.06 = PHP 106,000. SEF maximum = 50,000 × 1.06 = PHP 53,000. Capped combined amount = PHP 159,000, versus raw PHP 210,000.

Reasoning: The statutory cap concerns increases in each tax type under its qualifying first-year conditions. It does not restrict market value to a 6% increase or automatically apply in every later year.

Case 9 Historic amnesty and current claims

Question: A historical timely applicant has covered pre-effectivity tax principal PHP 120,000 and covered interest PHP 48,000, with no excluded circumstances. A different owner first asks to avail on October 12, 2026. No extension is supplied. Explain both.

Solution: For the eligible historical case, principal of PHP 120,000 remains while the covered PHP 48,000 interest is relieved. For the October request, the original July 5, 2026 deadline has passed; present relief requires verified authority.

Reasoning: Section 30 is relief on covered penalties, surcharges and interest, not principal cancellation. Timeliness and exclusions matter. An estate-tax amnesty announcement does not establish RPT relief.

Case 10 Recurring expense and one-time arrears

Question: Annual income before owner-borne RPT is PHP 1,500,000. Recurring RPT is PHP 180,000 and the supplied compatible cap rate is 8%. The seller also has PHP 300,000 historic arrears. Compute the income indication and explain the arrears.

Solution: NOI = PHP 1,320,000. Indication = 1,320,000 ÷ 8% = PHP 16,500,000. The arrears require a separately stated settlement or contractual treatment, supported by the actual interest and transaction scope.

Reasoning: Recurring RPT is already reflected in NOI and should not be deducted again as another annual charge. Historic arrears are a distinct obligation; do not automatically treat a net-proceeds reconciliation as the property's market value.

18 Assessment and tax worksheet

Suggested time: 45 minutes. Use the lines for key points and a separate sheet for full calculations and explanations. Distinguish the legal rule from the exercise's supplied local inputs.

1 Build the component ladder

A provincial exercise supplies land MV PHP 3,000,000 at 40%, building MV PHP 2,000,000 at 50%, basic rate 1% and SEF 1%. Compute each assessed component and annual levy.

_____

_____

_____

2 Choose the classification evidence

An agricultural tax declaration, commercial zoning map and inspected retail warehouse describe the same parcel. Identify the distinct questions these records answer and the checks needed.

_____

_____

_____

3 Test an exemption claim

A religious institution owns a worship building and a separate commercial rental parcel. Outline the actual-use and documentary inquiry; distinguish exemption from special classification.

_____

_____

_____

4 Reconcile payment

Annual basic plus SEF is stipulated at PHP 44,000. A lawful 10% advance discount covers both. Alternatively four installments apply. Compute both choices and state what an actual ordinance must establish.

_____

_____

_____

Assessment worksheet continued

5 Age the unpaid installment

The PHP 11,000 installment has five chargeable months under the supplied simple 2% monthly rule. No relief or expenses apply. Compute interest and total; identify records needed for a real ledger.

_____

_____

_____

6 Separate the challenge routes

List the triggers and basic periods for LBAA assessment appeal, LBAA-to-CBAA appeal and the written payment protest. State the collection effect of the assessment appeal and whether CBAA has no possible judicial review.

_____

_____

_____

7 Apply the conditional cap

Assume an eligible first-year file has prior basic PHP 40,000 and prior SEF PHP 20,000. Raw revised amounts are PHP 60,000 and PHP 30,000. Compute the capped amounts by tax type and explain what has not been proved for an actual file.

_____

_____

_____

8 Explain the appraisal impact

Income before owner-borne RPT is PHP 900,000. Compare recurring tax PHP 100,000 with PHP 140,000 at a supplied compatible 8% cap rate. Explain why this sensitivity is not a universal price prediction.

_____

_____

_____

19 Review and examination checks

Distinction	Check before answering
Market and assessed value	Which amount is before the assessment percentage?
Assessment level and tax rate	Which converts value and which levies tax?
Land and building	Are separate levels and classes required?
Ceiling and enacted rate	What does the actual ordinance adopt?
Actual use and zoning	Which question is the record answering?
Special class and exemption	Is there a separate exemption basis?
Value opinion and administrative action	Has the proper authority acted?
Notice and payment trigger	Which event starts this period?
Appeal and collection	Collection is not automatically suspended
Recurring tax and arrears	Which is annual expense and which is a settlement?
Reform target and parcel rollout	Is the applicable SMV actually effective?
Historical and current relief	Does the authority cover the requested date?

Use a reproducible answer sequence

Identify the parcel and component. State its actual use and taxable status. Establish the operative value schedule and local policy. Compute assessed value before the levy. Reconcile payment items. For a dispute, identify the challenged act and the event that starts the relevant route.

When revising an error, name the mistaken base, class, percentage, date or authority. Rework the reasoning instead of merely memorizing an answer letter. Use an official current source when a question depends on a procedure, rollout or newly enacted relief.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored exercises are not actual or recalled PRC items. Use the facts, dates and expressly supplied local policy in each question.

1. Which expression calculates assessed value for a single taxable component?

A. Market value × basic tax rate

B. Market value × assessment level

C. Assessed value ÷ assessment level

D. Annual tax ÷ market value

2. A land component has MV PHP 4,000,000 at AL 50% and a building MV PHP 3,000,000 at AL 70%. What is total AV?

A. PHP 7,000,000

B. PHP 4,900,000

C. PHP 3,500,000

D. PHP 4,100,000

3. An exercise supplies AV PHP 4,100,000, basic city rate 2% and SEF 1%. What is combined annual basic and SEF tax before adjustments?

A. PHP 123,000

B. PHP 41,000

C. PHP 82,000

D. PHP 210,000

4. A commercial zoning map covers land still principally used for crops. Which conclusion is best?

A. The zoning map proves commercial actual use

B. Agricultural ownership automatically exempts it

C. Actual use and its operative assessment treatment must be verified

D. A tax declaration supplies conversion permission

5. Which statement correctly describes section 218 assessment percentages?

A. They apply only to property sales

B. They are annual basic RPT rates

C. Every LGU must always use every maximum

D. They are statutory ceilings to be read with operative local policy and later law

6. A supplied adopted residential schedule sets 20% for values over PHP 300,000 but not over PHP 500,000. What is AV at exactly PHP 500,000?

A. PHP 100,000

B. PHP 125,000

C. PHP 50,000

D. PHP 500,000

7. A for-profit hospital claims zero RPT solely because hospitals are a special class. What is the best response?

A. Special classification always means zero tax

B. Any private hospital is exempt

C. Investigate special-class treatment and a separate exemption basis

D. Use the commercial basic rate as its assessment level

8. Which fact most directly defeats an automatic exemption conclusion based only on government ownership?

A. The property has a survey

B. Beneficial use may have been granted to a taxable person

C. Its market value is high

D. The tax bill is annual

9. A taxpayer supplies a tax declaration and receipts as its only proof of ownership. Which statement is sound?

A. They are relevant evidence but do not by themselves conclusively prove title

B. Payment always creates Torrens ownership

C. The tax record replaces all survey evidence

D. A receipt settles every competing claim

10. How should a private appraiser's report supporting a lower value be treated?

A. It automatically cancels the tax bill

B. It grants an exemption without filing

C. It can support the proper process if its scope and evidence are relevant

D. It suspends every appeal period

11. Annual basic plus SEF is PHP 80,000. A lawful applicable 15% discount is supplied. What is the qualified advance payment?

A. PHP 12,000

B. PHP 68,000

C. PHP 65,000

D. PHP 92,000

12. An unpaid PHP 20,000 installment has three chargeable months at simple 2% monthly interest. What is principal plus interest?

A. PHP 20,400

B. PHP 1,200

C. PHP 21,224.16

D. PHP 21,200

13. What starts the section 226 sixty-day assessment appeal period?

A. The last day of the tax year

B. The appraiser's inspection date

C. Receipt of the written assessment notice

D. The date of acquiring the property in every case

14. What is the basic section 252 period for the written payment protest?

A. Sixty days from assessment-notice receipt

B. Thirty days from tax payment

C. Two years from inspection

D. Thirty days from zoning approval

15. What does an assessment appeal itself do to collection under section 231?

A. It always cancels the tax

B. It suspends collection until the next revision

C. It transfers collection to the private appraiser

D. It does not suspend collection, subject to subsequent adjustment

16. Which statement about CBAA review avoids reliance only on old Code wording?

A. RA 9282 provides CTA appellate jurisdiction over relevant CBAA decisions

B. The assessor alone can reverse any CBAA decision

C. Every CBAA case goes straight to the Supreme Court as a first appeal

D. All judicial review is forbidden

17. An eligible first-year cap exercise has prior basic tax PHP 50,000 and raw revised basic PHP 80,000. At maximum 6% increase, what is the capped basic amount?

A. PHP 84,800

B. PHP 80,000

C. PHP 3,000

D. PHP 53,000

18. A qualifying historical timely amnesty case has covered principal PHP 90,000 and covered interest PHP 30,000. What does the original section 30 relief do?

A. Erases the entire PHP 120,000

B. Cancels principal and keeps interest

C. Relieves covered interest while principal PHP 90,000 remains

D. Creates a permanent exemption for the parcel

19. A current October 12, 2026 request relies only on the original July 5, 2026 RPT amnesty deadline. No extension is supplied. What should be concluded?

A. The original window has passed and current relief needs verified authority

B. An estate-tax announcement establishes RPT relief

C. Every owner can still avail automatically

D. No real property tax will ever be due again

20. A property has annual income before owner-borne RPT PHP 900,000, recurring RPT PHP 100,000 and a compatible supplied cap rate 8%. What is its simplified income indication?

A. PHP 11,250,000

B. PHP 10,000,000

C. PHP 9,900,000

D. PHP 800,000

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	B
2	D	12	D
3	A	13	C
4	C	14	B
5	D	15	D
6	A	16	A
7	C	17	D
8	B	18	C
9	A	19	A
10	C	20	B

1. B Assessment level converts the relevant market value to assessed value. The basic levy rate is applied at the following step, while division by the level reconstructs a value base.

2. D Land AV is PHP 2,000,000 and building AV PHP 2,100,000. Their sum is PHP 4,100,000. Apply the component levels separately.

3. A Basic is PHP 82,000 and SEF PHP 41,000. Their combined amount is PHP 123,000, computed from assessed value rather than market value.

4. C Actual-use assessment, zoning permission and agrarian conversion are different questions. A proposed or permitted commercial use does not by itself establish present commercial actual use.

5. D Section 218 authorizes local levels within its stated maxima. An assessment percentage is neither a levy rate nor automatically the level enacted by every LGU.

6. A Exactly PHP 500,000 remains in the stated band. Apply 20% to the whole relevant value to obtain PHP 100,000.

7. C A special class and exemption have different functions. The particular property needs use evidence, operative assessment policy and any separately established exemption.

8. B Section 234(a) includes the taxable-beneficial-use exception. Ownership alone does not resolve that factual and legal inquiry.

9. A Tax records can support a claim of ownership or possession but need evaluation with other evidence. They do not automatically resolve title, boundaries or competing rights.

10. C A valuation opinion can supply evidence, but the statutory decision and challenge route remain necessary. Match its date, condition and purpose to the disputed assessment.

Answer explanations continued

11. B Discount is 80,000 × 15% = PHP 12,000. Qualified payment is PHP 68,000. Do not assume this discount where its ordinance and conditions are not supplied.

12. D Simple interest is 20,000 × 2% × 3 = PHP 1,200, giving PHP 21,200. The compounded figure does not match the supplied computation.

13. C The statutory trigger is receipt of the written assessment notice. Keep the actual receipt evidence; do not substitute an issue or inspection date.

14. B Section 252 requires prior payment, receipt annotation and the written protest within thirty days from payment. It has a different trigger from section 226.

15. D Section 231 keeps collection operating despite an assessment appeal, without prejudice to adjustment after the final outcome. Do not infer a payment holiday.

16. A Read the Local Government Code together with later law. RA 9282 provides CTA appellate jurisdiction over CBAA decisions in the stated real-property cases; the governing procedure must still be followed.

17. D Apply 1.06 to the stipulated correct prior basic baseline: PHP 53,000. The cap concerns the tax amount under qualifying conditions, not the market value.

18. C The original relief covers specified penalties, surcharges and interest; principal remains payable. Eligibility, timely availment and exclusions must also be satisfied.

19. A The original window ends before the request date. Do not assume an extension or confuse estate-tax amnesty with RPT amnesty.

20. B NOI is PHP 800,000 and capitalization gives PHP 10,000,000. Recurring tax is already deducted from NOI and should not be deducted again as another annual charge.

Worksheet model responses

Response 1

Land AV = 3,000,000 × 40% = PHP 1,200,000. Building AV = 2,000,000 × 50% = PHP 1,000,000. Total AV = PHP 2,200,000. Basic tax = PHP 22,000 and SEF = PHP 22,000. Annual combined = PHP 44,000. The levels and levies are expressly supplied exercise policy, not an actual provincial assessment.

Response 2

The tax declaration records an administrative class and values at its operative date. The zoning map concerns planning controls. Inspection supplies evidence of present use. Verify the warehouse's actual activity, dates, permissions, operative assessment guidance and notice. Do not treat a commercial tax entry as proof of agrarian conversion or a zoning map as sufficient evidence of actual use.

Response 3

Identify each parcel and use, including leases, occupiers and relevant portions. Examine the statutory actual, direct and exclusive religious-use inquiry with documents supporting the claim. The separate commercial parcel needs its own analysis. Submit relevant proof through the assessor's process. A reduced assessment class and a statutory exemption have different effects; institutional ownership alone does not settle every parcel.

Response 4

Discount = 44,000 × 10% = PHP 4,400. Qualified advance payment = PHP 39,600. Four equal undiscounted installments = PHP 11,000 each. Check the ordinance's eligibility date, percentage, covered items, arrears conditions and payment procedure. The statutory discount ceiling does not itself grant the maximum discount.

Response 5

Interest = 11,000 × 2% × 5 = PHP 1,100. Principal plus interest = PHP 12,100. A real ledger needs the installment due date, chargeable month or fraction count, payment dates, credits, prior arrears, applicable cap and any lawful relief or expenses. Do not compound this exercise or age every installment from a single date.

Response 6

Section 226: sixty days from receipt of written assessment notice for the LBAA petition under oath with supporting records. Section 229: thirty days after receipt of the LBAA decision for CBAA appeal. Section 252: thirty days from payment for a written payment protest, with prior payment and receipt annotation; treasurer decision within sixty days from protest receipt. Section 231 does not suspend collection. RA 9282 supplies CTA appellate jurisdiction over CBAA decisions, subject to the governing procedure.

Response 7

Basic limit = 40,000 × 1.06 = PHP 42,400. SEF limit = 20,000 × 1.06 = PHP 21,200. Combined = PHP 63,600, rather than raw PHP 90,000. Actual application still needs the qualifying approved-SMV first year, proper statutory baselines, component continuity and operative implementation. It is a tax-increase cap, not a market-value cap.

Response 8

At tax PHP 100,000, NOI = PHP 800,000 and indication = PHP 10,000,000. At tax PHP 140,000, NOI = PHP 760,000 and indication = PHP 9,500,000. Difference = PHP 500,000. The exercise holds income, recovery terms, timing and rate constant. Actual market reaction can differ because leases, expected relief, rents and investor pricing can change.

22 Essential terms and formula review

Assessment Discovery listing classification appraisal and determination of taxable value.

Assessment level Percentage converting the applicable market value into assessed value.

Assessed value The relevant taxable value before the levy rate is applied.

Ad valorem A levy determined by reference to a defined value base.

Actual use Principal or predominant utilization under the governing assessment rules.

Special class A statutory classification with specific assessment treatment.

Exemption Relief from tax within an established legal and factual scope.

SEF Special Education Fund additional real-property levy.

Idle-land tax A distinct additional levy with specific coverage and exception rules.

Special levy A charge against land specially benefited by qualifying public works.

SMV Schedule of market values under the applicable valuation framework.

Payment under protest Payment and written protest through the specified statutory procedure.

LBAA and CBAA Local and Central Boards of Assessment Appeals.

Tax lien A legally recognized claim against the taxed property with collection consequences.

Exercise	Formula or relationship
Assessed component	MV × assessment level
Total assessed value	Sum of supported assessed components
Basic RPT	Relevant AV × enacted basic rate
SEF exercise	Relevant AV × applicable SEF rate
Eligible advance payment	Covered annual tax × (1 − discount)
Simple delinquency exercise	Unpaid principal × monthly rate × chargeable months
Conditional 6% cap	Compare raw revised type with prior baseline × 1.06
Income sensitivity	Recurring tax change ÷ compatible cap rate

A formula does not establish classification, exemption, local ordinance validity, first-year eligibility or the proper procedural route. Label all supplied assumptions and preserve date evidence.

23 Sources and 2027 preparation status

Bracketed references identify the primary legal and official sources below. Selected statutory provisions were directly reviewed on 12 October 2026. All explanations, cases, worksheets and examination questions are original. Fictional values and supplied local levels, rates, discounts and financial assumptions do not certify an actual LGU's policy or an actual parcel's liability.

RA 7160 is used with RA 12001 rather than as an unamended current code. In particular, the repealed section 219 is not the operative general-revision source. Later tax-court legislation is included so the older description of CBAA finality is not presented as the elimination of judicial review.

The official BLGF IRR publication and selected indexed text were located, including the original July 5, 2026 amnesty deadline. Direct full-document retrieval returned an access error; this chapter does not claim a comprehensive current-IRR or procedural-rules audit. The official Cebu notice corroborates the original window. No later nationwide extension was established in the reviewed sources, and none is assumed for October 2026 or 2027.

No specific locality's ordinance, effective certified SMV, actual-use allocation, exemption decision, tax ledger or rollout status was examined. An actual assessment requires those documents and applicable current rules and jurisprudence. Detailed reform governance, SMV process and transition are developed in Lessons 20–22; national transaction taxation begins in Lesson 19.

This is a provisional 2027 preparation edition, not a statement of confirmed PRC dates, future topic weights or official endorsement. Recheck later examination programs and tax issuances before examination and professional application.

1 RA 7160 Local Government Code

10 October 1991. Book II Title II selected sections 197–218, 220–226, 229, 231–253 and 255–260. Assessment, actual use, exemption, levy, payment and basic remedies. Original statutory text must be read with later amendments, including RA 12001.

https://lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

2 RA 12001 Real Property Valuation and Assessment Reform Act

13 June 2024. Selected sections 3–5, 13–19, 29–31, 35 and 38. Definitions, valuation reform, SMV framework, first-year cap, original amnesty and repealed provisions. Parcel-level rollout and applicable ordinances remain separate verification tasks.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

3 Heirs of Alejandra Delfin v Rabadon

Supreme Court, G.R. No. 165014, 31 July 2013. Used for the narrow evidentiary distinction that tax declarations and receipts do not conclusively prove ownership or replace the proper title and parcel inquiry. It is not a complete title or possession case-law survey.

https://lawphil.net/judjuris/juri2013/jul2013/gr_165014_2013.html

4 RA 9282 Court of Tax Appeals jurisdiction

30 March 2004. Selected amendments to RA 1125 sections 7 and 11 establish the stated CTA review of CBAA decisions. Governing current court procedures and case-specific route still require checking.

https://lawphil.net/statutes/repacts/ra2004/ra_9282_2004.html

5 BLGF official RPVARA implementing material

Memorandum Circular 001-2025 dated 6 January 2025 attaches the IRR signed 10 December 2024. Official indexed text identifies the original amnesty deadline. Direct PDF retrieval failed; no full clause-by-clause IRR audit is asserted.

https://blgf.gov.ph/wp-content/uploads/2025/03/BLGF-MC-No.-001.2025-IRR-of-RA-No.-12001-or-the-RPVARA-Reform-Act-6-Jan-2025-Approved-3.pdf

6 Cebu Province original amnesty notice

Official provincial notice dated 15 September 2025. Corroborates the original July 5, 2024 to July 5, 2026 window and covered pre-effectivity penalties, surcharges and interest. It does not establish a post-window extension or another locality's procedure.

https://www.cebu.gov.ph/3823/cebu-capitol-launches-real-property-tax-amnesty-until-2026-for-delinquent-property-owners/

REALEX

Lesson 19

National Real Property Transaction Taxes

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

A real-property transfer can create final tax, a withholding credit, output VAT, document tax or estate and donor liabilities. Identify the event, taxpayer and asset classification before selecting a percentage. A correctly calculated number can still be the wrong tax.

This lesson develops capital and ordinary asset distinctions, operative valuation bases, qualifying CGT relief, CWT, VAT, DST, estate and donor principles. It compares local transfer tax and explains the different filing clocks and economic roles of price, credits and net proceeds.

The Harana Transfer File, cases, worksheet and twenty questions are original teaching work. Values and accepted tax bases are fictional supplied inputs. The chapter includes the RA 12001 valuation transition, 2024 VAT threshold and invoice changes, the EOPT withholding veto and the 2025 section 24 citation update. Actual parcel rollout and 2027 adjustments still require their operative sources.

Your learning goals

- Classify the transferred property in the relevant seller's hands.
- Distinguish a final CGT charge from ordinary income tax and CWT.
- Select a tax base under an expressly established valuation regime.
- Keep assessor market value separate from assessed value.
- Apply qualifying partial principal-residence relief to supplied facts.
- Extract VAT correctly from an expressly inclusive price.
- Recognize the residential-dwelling threshold and its date limitations.
- Compute deed DST using the prescribed fractional units.
- Aggregate annual gifts for the donor's tax allowance and credit.
- Compute a stipulated net estate using valid deductions.
- Separate local transfer tax annual RPT and non-tax closing costs.
- Reconcile deadlines authority records eCAR and transaction proceeds.

Study plan: Allow four to five hours over two sessions. Read sections 1–8 for classification, income tax and VAT, then sections 9–16 for DST, gratuitous transfers and closing review. Attempt the ten cases, two-page worksheet and twenty-question test before checking the model responses.

1 Begin with the transaction and taxpayer

A real-property transfer does not have one universal tax percentage. Identify the transaction, the taxpayer, the property's classification in that taxpayer's hands and the relevant date before calculating. A sale by an individual of a personal capital asset, a developer's sale of inventory, a donation and a transfer at death are different taxable events. Similar land or buildings can therefore follow different tax paths.

This lesson covers the principal national taxes encountered in property transactions: final capital gains tax on qualifying Philippine real-property capital assets, ordinary income taxation and creditable withholding, VAT, documentary stamp tax, estate tax and donor's tax. It also compares local transfer tax with those national taxes. Annual RPT was covered in Lesson 18; it is not a substitute for the transaction taxes studied here.

The National Internal Revenue Code must be read with its amendments and applicable regulations. TRAIN changed estate, donor and documentary stamp provisions; CREATE changed relevant income-tax and VAT provisions; the Ease of Paying Taxes Act changed important administration and invoicing rules; RA 12001 changed the valuation-base framework, and the 2025 Capital Markets Efficiency Promotion Act reorganized relevant section 24 references. A form or reviewer issued before those changes can be useful evidence of its period without being a complete present-day instruction. [1–3, 8, 9, 12]

The original Harana Transfer File concerns a Philippine parcel sold by an individual. For its core capital-asset exercise, classification is expressly established, no exemption applies, consideration is PHP 6,000,000, the applicable transitional zonal value is PHP 7,000,000 and the assessor schedule market value is PHP 5,500,000. Its assessed value for annual RPT is PHP 2,750,000. These numbers are fictional teaching inputs, not an actual parcel's tax records.

The higher applicable transaction base is PHP 7,000,000 in this stipulated transitional example. Assessed value of PHP 2,750,000 is not the assessor's market-value entry, and it must not replace that entry in the comparison. The tax path, valuation regime and chosen base must all appear in the solution. Writing only "6%" is insufficient.

Build a transaction note that records the transferor, transferee, interest, transaction type, date, capital or ordinary classification, VAT status, valuation regime, exemptions and filing responsibilities. Once these entries are supported, the arithmetic becomes reproducible. If a material entry is unknown, show the conditional branches rather than silently choosing the cheapest tax result.

Tax inquiry	Core distinction
Final real-property CGT	Qualifying capital asset and presumptive base
Ordinary income tax	Taxable income under the relevant taxpayer regime
CWT	Advance credit where withholding is required
VAT	Separate business scope exemption and output tax
DST	Covered document with its own base and rate units
Estate or donor	Death-date or lifetime-gift event and applicable deductions
Local transfer	Separate enacted local levy and event

2 Capital assets and ordinary assets

Section 39(A)(1) defines capital assets by excluding certain categories. Ordinary-asset categories include stock in trade or inventory, property primarily held for sale to customers in the ordinary course of business, relevant depreciable business property and real property used in trade or business. The label “capital asset” in everyday financial language or an accounting fixed-asset account does not decide the tax classification. [1, 4]

A developer’s lots held for sale to customers are generally ordinary assets. A building used by a manufacturer in its business can also be an ordinary asset even though the manufacturer is not a real-estate dealer. Business property is not limited to property sold frequently. A real-estate lessor’s income-producing property also requires the business-use classification inquiry.

A personal house or investment parcel outside the ordinary-asset exclusions can be a capital asset in the individual seller’s hands, subject to the actual facts. Do not infer classification solely from the tax declaration saying “residential” or “commercial.” That record concerns local assessment use, while capital or ordinary status concerns the seller’s national income-tax treatment.

RMC 99-2023 restates ordinary-asset categories and specifically addresses bank properties acquired through foreclosure. It also distinguishes certain government-seized properties sold in the exercise of regulatory functions from ordinary business inventory. These examples show why transaction history and the seller’s role matter. They do not authorize treating every foreclosure or auction in the same way. [4]

An asset’s classification can differ in the hands of seller and buyer. An individual may sell a capital asset to a developer who acquires it for inventory. The buyer’s intended development does not automatically convert the seller’s prior asset into business inventory. Conversely, an individual purchaser’s personal use does not convert a developer’s inventory sale into the seller’s capital-asset sale.

For a previously used business property, obtain the relevant use history and the operative classification rules. Mere vacancy, cessation of business, a change in the bookkeeping label or an owner’s declaration does not establish the applicable conversion treatment. Any regulatory conditions and supporting proof must be checked. This chapter does not turn a brief period of nonuse into a universal capital-asset rule.

3 Final capital gains tax on real property

For the ordinary qualifying individual capital-asset case under the real-property provision historically numbered section 24(D), the final CGT rate is 6% on the higher applicable gross selling price or market-value base. The statutory tax concerns gains presumed realized on the transfer of Philippine real property; it is not simply 6% of the seller’s actual accounting profit. Domestic corporate capital-asset land and building dispositions have their separate section 27(D)(5) provision. Do not extend one taxpayer’s provision to every foreign entity without analysis. RA 12214 lists the individual real-property capital-gains provision under section 24(B)(4); older statutes, forms and reviewer citations use section 24(D). This renumbering must be tracked rather than mistaken for abolition of the tax. [1, 3, 7, 12]

In Harana’s stipulated transitional capital-asset file, the selected base is PHP 7,000,000, so CGT is PHP 420,000. Historical acquisition cost of PHP 4,000,000 does not reduce that base to the PHP 2,000,000 actual price difference. Nor does the difference between the PHP 7,000,000 tax reference and PHP 6,000,000 price itself become the taxable gain. The correct exercise computes the prescribed final tax from the prescribed base.

The distinction also matters on a loss. Suppose the same property had a supported historical cost of PHP 8,000,000 and was sold for PHP 6,000,000, with the applicable transaction base still PHP 7,000,000. Under the

stipulated taxable capital-asset treatment, the final CGT remains PHP 420,000. A loss compared with cost does not by itself remove this presumptive tax.

Classification comes first. An ordinary business asset does not become subject to final 6% real-property CGT merely because its buyer withholds 6%. The same numerical rate can belong to a different tax mechanism. The return, credit treatment and final income-tax computation remain different.

The CGT rate also differs from the assessment level in Lesson 18. A local commercial-land assessment level of 50% is not inserted before the 6% transaction tax. Annual RPT starts from assessed value; the transaction tax uses its own applicable value base. Always state the amount before the rate is applied.

Harana transitional input	PHP	Use in this exercise
Actual price	6,000,000	Cash consideration
Zonal reference	7,000,000	Applicable official tax reference
Assessor schedule FMV	5,500,000	Applicable market-value comparison
Assessed value	2,750,000	Annual RPT base not transaction FMV
Selected CGT base	7,000,000	Highest applicable transitional reference
CGT at 6%	420,000	Final qualifying transfer tax

Special provisions, exemptions and government-acquisition options require their own conditions. A sale to a government agency is not an automatic zero-tax event. The principal-residence exception is also conditional. When a problem supplies only an ordinary taxable sale, apply that supplied path; when it supplies a special circumstance, identify and verify the relevant rule before using the standard formula.

4 Selecting the valuation base under the operative regime

A transaction tax base is a legal measurement rule, not necessarily the independently appraised market value of the interest. The deed consideration, applicable official valuation entries and their operative dates must be established. A broker’s estimate, asking price or private appraisal does not automatically replace the official tax references used by law.

RA 12001 provides that the approved SMV is used for national and local property-related taxes. Section 18(a)(3) directs the Commissioner to use the SMV or actual gross selling price in the transaction documents, whichever is higher, for internal revenue tax computation. Its section 29 transitional provision addresses the existing SMV, zonal value and actual consideration, whichever is higher, when the updated SMV is not yet available. The saving and effectivity provisions require attention to the operative schedule. [3]

Therefore, do not teach the historic “highest of price, zonal value and assessor FMV” shortcut as the only rule forever. It remains relevant to an expressly established transitional or historical regime. Under the approved new-SMV regime, use the governing later framework and applicable implementation. The fact that a nationwide updating target has passed does not establish the schedule actually effective for a particular parcel.

The Harana core exercise explicitly supplies the transitional regime. The tax base is max(PHP 6,000,000 consideration, PHP 7,000,000 zonal value, PHP 5,500,000 assessor schedule market value) = PHP 7,000,000. Its

PHP 2,750,000 assessed value is excluded from this market-value comparison. That amount was produced by the local assessment percentage, not by a transaction-tax valuation rule.

An alternative exercise expressly establishes an effective approved new SMV of PHP 6,800,000 and actual gross selling price PHP 7,200,000. The section 18 comparison gives PHP 7,200,000. The qualifying 6% CGT is then PHP 432,000. An older zonal reference should not simply be added back as an eternal third item after the applicable replacement regime has been established.

For an actual file, obtain the schedule, classification, unit value, area, land and improvement treatment, approval and effective-date evidence. Reconcile the parcel's location and rights with the entry selected. If an official value is disputed, use the proper procedure; an appraisal disagreement alone does not allow an unsupported replacement base on a filed return.

Established regime	Tax-base comparison for the supplied CGT case
Transitional or historical	Applicable price zonal value and assessor SMV or FMV
Approved new SMV	Approved operative SMV and actual gross selling price
Unresolved rollout	Obtain effective schedule and implementation evidence

5 Principal-residence relief

The principal-residence exception, historically cited as section 24(D)(2) and read with RA 12214's revised section 24 arrangement, provides a conditional capital-gains exception for a natural person's principal residence. Its core statutory conditions include using the proceeds to acquire or construct a new principal residence within eighteen calendar months, notifying the Commissioner within thirty days through the prescribed return and using the relief only once every ten years. The historical cost or adjusted basis is carried over to the replacement residence. [1, 7]

Ownership of a residential property does not alone establish that it is the seller's principal residence. Investigate actual use and the relevant documentation. A vacant investment condominium or a rental house cannot be treated as qualifying merely because its zoning or title describes residential property. Entity status matters too: the natural-person relief is not automatically available to a corporation.

Full use of the proceeds is different from spending an amount equal to the gain or paying off the old mortgage. The statutory reference is proceeds from the qualifying sale. An owner who intends to purchase another home should verify the applicable documentation and implementation arrangements before assuming relief. A future intention is not proof that all conditions will be met.

The statute also addresses partial utilization. Its fraction compares the unutilized amount with gross selling price and applies that fraction to the higher applicable sale-price or market-value base. The remaining taxable portion is subject to the 6% tax. The denominator in the fraction is not automatically the higher tax reference value.

For an original simplified eligible exercise, gross selling price is PHP 8,000,000, applicable tax base is PHP 9,000,000 and qualifying reinvestment is PHP 6,000,000. Unutilized proceeds are PHP 2,000,000. The taxable portion is 9,000,000 × (2,000,000 ÷ 8,000,000) = PHP 2,250,000. Tax is 2,250,000 × 6% = PHP 135,000. The example stipulates that the other eligibility and procedural requirements are satisfied.

Relief from this CGT does not itself establish relief from DST, local transfer tax or every registration charge. Each item needs its own exemption inquiry. Keep the principal-residence calculation separate from the family-home deduction under estate tax; they concern different taxable events, conditions and amounts.

6 Ordinary income taxation and creditable withholding

An ordinary-asset sale belongs to the relevant ordinary income-tax computation, with any applicable CWT functioning as an advance credit rather than the final tax on that sale. A business may recognize sales and cost of sales for inventory; an incidental business-property disposal may recognize the relevant taxable gain. Do not infer the annual tax from a single withholding amount. [4, 5, 8]

RR 11-2018's real-property ordinary-asset provision identifies CWT rates for sellers habitually engaged in real-estate business: 1.5% for selling prices of PHP 500,000 or less, 3% over PHP 500,000 but not over PHP 2,000,000, and 5% over PHP 2,000,000. Its nonhabitually engaged ordinary-asset seller category uses 6%, subject to the applicable exemptions and rules. Verify the seller category, price band and withholding base. The proposed EOPT micro-taxpayer withholding exception was vetoed, as noted in BIR's consolidated Tax Code. Do not adopt that proposed sentence as an operative exemption merely because an unannotated enacted-bill reproduction prints it. Verify the buyer's applicable withholding status and any actual exemption. [5, 9, 13]

The regulation states a higher-of consideration or relevant FMV withholding base, while its rate bands are expressed by selling price. Keep those inquiries separate. In a simplified cash-sale exercise, a qualifying habitual seller has selling price PHP 1,800,000 and an established applicable value base PHP 2,200,000. The rate is the supplied 3% selling-price band, and the withholding amount is 2,200,000 × 3% = PHP 66,000. The exercise assumes no exemption or VAT-base complication.

Ordinary-asset seller category	Selling-price band	CWT reference rate
Habitually engaged	Not over PHP 500,000	1.5%
Habitually engaged	Over PHP 500,000 to PHP 2m	3%
Habitually engaged	Over PHP 2m	5%
Not habitually engaged	Applicable ordinary-asset category	6%

Rate table note: Apply the applicable exemptions, withholding obligation and correct base. Upper endpoints are included. CWT is a credit rather than final CGT. The vetoed micro-taxpayer exception is not an operative blanket exemption. [5, 13]

For a PHP 6,000,000 ordinary-asset sale by a qualifying habitual seller with the same stipulated PHP 7,000,000 higher base used in Harana's comparison, CWT at 5% is PHP 350,000. The transfer is not automatically subject to both ordinary income tax and a second final 6% CGT. Separately applicable VAT and DST remain different inquiries.

Assume a domestic corporate exercise expressly supplies final taxable income PHP 1,200,000, applicable regular rate 25%, CWT credit PHP 350,000, no other credits and no MCIT or special-regime complication. Regular tax is PHP 300,000. The computation shows a PHP 50,000 excess credit, not an additional PHP 650,000 combined tax. The disposition of excess credits follows the applicable return and refund or carryover rules; a calculation alone is not an approved cash refund.

CREATE's standard domestic corporate rate and its qualifying smaller-corporation rule must not be treated as universal rates for every taxpayer. Individuals, special regimes, registered activities and MCIT can require different computations. For this lesson, use expressly established taxpayer status and rates in numerical exercises rather than trying to complete a whole corporate tax return from a single sale.

7 VAT scope and residential thresholds

VAT is a separate inquiry from capital or ordinary income-tax treatment. Examine business context, VAT registration or liability, statutory exemptions and the character of the transfer. RMC 99-2023 states the general ordinary-asset VAT treatment and identifies exceptions; it must be read with later threshold and invoicing changes. "Ordinary asset" alone is not a complete computation of VAT due. [4, 6, 9]

The ordinary VAT rate for a taxable exercise is 12% of its applicable VAT base. This is output VAT, before the relevant input-tax credits and the taxpayer's other transactions. A property-transfer example does not establish net VAT payable without that additional information. Do not add a second 12% to a price already defined as VAT inclusive.

RR 1-2024 adjusted the exemption threshold for house and lot and other residential dwellings to PHP 3,600,000, effective January 1, 2024. The provision requires adjustment every three years thereafter using the PSA CPI. A July 2027 preparation plan therefore needs the next operative threshold rechecked; this October 2026 chapter does not assume a 2027 figure. [6]

The particular dwelling exemption is not a universal PHP 3,600,000 exemption for every land transaction. A commercial lot is not a residential dwelling, and a bare residential lot does not receive this dwelling-price exception merely from its description. Other exemptions, socialized-housing provisions and nonbusiness circumstances need their own legal analysis.

Dwelling-threshold question	Checked treatment
Effective from January 1 2024	PHP 3,600,000 for the qualifying category
Exactly PHP 3,600,000	Included by the not-more-than boundary
Bare residential or commercial lot	No automatic dwelling-price exemption
2027 use	Recheck the next operative CPI adjustment

For a simplified qualifying residential-dwelling price of exactly PHP 3,600,000 under the established 2024 threshold, the stated "not more than" boundary includes that amount. A price of PHP 3,600,001 exceeds the boundary. Crossing it does not mean that only PHP 1 is subject to VAT. If the transaction is otherwise taxable and no other exemption applies, VAT follows the full applicable VAT base.

Do not confuse this dwelling-price threshold with a taxpayer's general VAT-registration threshold, a project's socialized-housing price ceiling or the basic tax-free amount for individual income tax. They answer different questions. Also investigate combined transactions and applicable aggregation rules instead of artificially dividing a single taxable sale into smaller papers to assert exemption.

8 VAT arithmetic and price presentation

A VAT-exclusive price and a VAT-inclusive total must be labelled clearly. If the established VAT base is PHP 5,000,000 exclusive of VAT, output VAT at 12% is PHP 600,000, and the VAT-inclusive total is PHP 5,600,000. If PHP 5,600,000 is already the inclusive total and no higher-base issue applies, its net-of-VAT amount is 5,600,000 ÷ 1.12 = PHP 5,000,000; VAT is PHP 600,000.

Multiplying the VAT-inclusive PHP 5,600,000 by 12% would produce PHP 672,000 and double count part of the tax. The embedded tax fraction is 12/112 of the inclusive amount in this simplified exercise. The division is justified only when the stated amount is genuinely inclusive and the applicable base conditions are established.

Property VAT valuation can involve a higher applicable official reference rather than only the written price. RMC 99-2023 describes its pre-reform higher-of real-property VAT base. RA 12001 supplies the later general property-valuation framework. An actual computation must reconcile the operative regime, applicable VAT implementing rules, price convention, improvements and transaction date. This chapter's VAT arithmetic expressly stipulates the accepted base to avoid pretending an unresolved rollout issue has been decided. [3, 4]

CWT, VAT and DST also need consistent base conventions. A statement that the price is PHP 5,600,000 does not by itself settle whether the amount includes VAT or how each separate tax rule treats it. Do not compute every percentage on the same visible number merely because it is in the deed. Obtain the invoice, contract, official valuation evidence and applicable withholding instructions.

VAT invoicing has been affected by the Ease of Paying Taxes Act. The older RMC 99-2023 discussion allowing an official receipt in a stated incidental-sale situation should not be used as a general present-day invoicing rule. Check the updated invoice requirements and implementation. A deed records the conveyance; a proper tax invoice serves a different fiscal function. [4, 9]

In a development-economics model, distinguish VAT collected from a customer, VAT paid on inputs, recoverable input credit and nonrecoverable tax cost. Counting all output VAT as revenue can overstate commercial performance. Counting every input VAT amount as a recoverable receivable without eligibility can understate development cost. Keep the project's tax status and timing visible.

9 Documentary stamp tax

DST is imposed on the covered document or transaction independently of the income-tax classification. TRAIN's section 196 amendment covers deeds of sale, conveyance and donation of real property, with specified exceptions. For the ordinary taxable exercise, the base is the higher consideration or applicable FMV, subject to the relevant law and operative valuation framework. Government-party and exemption provisions need separate attention. [1–3]

The statutory schedule is PHP 15 for a value not exceeding PHP 1,000, plus PHP 15 for every additional PHP 1,000 or fraction thereof. At exact PHP 1,000 multiples this equals 1.5%. The percentage shorthand can miss a rounding unit when the base is not an exact multiple. Preserve the per-unit statutory method in a precise examination answer.

For a taxable base of PHP 7,000,000, DST is (7,000,000 ÷ 1,000) × 15 = PHP 105,000. For a base of PHP 7,000,001, there are 7,001 chargeable PHP 1,000 units after rounding the fraction upward, so DST is PHP 105,015. Simply multiplying by 1.5% gives PHP 105,000.015 and misses the statutory fractional-unit charge.

This arithmetic assumes an ordinary conveyance with no qualifying exemption, government-party special base or encumbrance complication. A mortgage document has its own DST provisions and is not calculated by

automatically using the sale-deed rate. A donation of land can also create deed DST even when there is no purchase price. Determine the covered document and relevant provision first.

Taxable deed base PHP	Chargeable units	DST PHP
7,000,000	7,000	105,000
7,000,001	7,001	105,015

A transfer below the donor's annual taxable-gift allowance is not automatically exempt from deed DST. The section 196 exemption refers to specified section 101 gifts; it is not the same as having no donor's tax payable after the annual allowance. A gift can therefore have zero donor's tax in an exercise yet still require a separately established DST calculation.

Parties commonly allocate transaction costs by contract, but private allocation and statutory liability are different matters. A buyer's agreement to pay a seller-related tax does not change the statutory tax category. Determine the taxpayer, withholding agent, filing duty and economic bearer separately. Do not use an allocation clause to conclude that BIR cannot pursue a legally responsible person.

10 Donations and less-than-adequate consideration

Donor's tax concerns a lifetime gratuitous transfer, not every transfer among relatives. Establish ownership, donative character, the donor's interest, valuation date and applicable tax rules. A deed bearing the title "donation" is relevant evidence, but the transaction's actual rights, conditions and economic terms still need examination.

TRAIN sets donor's tax at 6% of total gifts exceeding the PHP 250,000 exempt amount made during the calendar year. The allowance is annual for the donor; it is not multiplied by the number of donees or restarted for each deed. The old separate rate for gifts to strangers should not be taught as the current TRAIN rule. [2]

A simplified donor with no other gifts first gives taxable-category cash PHP 100,000, then gives a land interest with accepted gift-date taxable value PHP 2,000,000. Cumulative gifts are PHP 2,100,000. Taxable excess is PHP 1,850,000 and cumulative donor's tax is PHP 111,000. The first PHP 100,000 gift used part of the annual allowance even though it produced no tax. The later computation cannot deduct PHP 250,000 again from every separate gift.

If an earlier gift had already produced donor's tax, reconcile that payment with the cumulative calendar-year calculation. Do not pay the cumulative liability again without crediting the applicable prior tax. A jointly owned donated property also requires allocating the actual interest transferred by each donor, rather than treating each person as having donated the whole parcel.

Section 100 addresses transfers for less than adequate and full consideration, with an express exception for real property referred to in section 24(D) and an arm's-length business qualification. Therefore, the difference between price and FMV is not automatically a gift in every property sale. Identify the applicable property and transaction before asserting donor's tax on that difference. [2]

A donation of an ordinary business asset can raise VAT deemed-sale issues under the applicable framework; a personal capital-asset gift has a different inquiry. Donor's tax, VAT and deed DST have separate legal bases. Tax-exempt gifts to government or qualifying institutions also require their statutory conditions and documentary proof; a recipient's attractive name is not sufficient.

11 Estate tax and the death-date interest

Estate tax concerns the transfer at death and is calculated from the decedent's net taxable estate under the applicable law. TRAIN establishes a 6% rate on net estate. This is not an instruction to apply 6% separately to the full value of every inherited land parcel without considering inclusion, ownership interests and allowable deductions. The date of death determines the governing regime and relevant valuation date. [1, 2]

First identify what the decedent owned or what is otherwise includible under estate-tax law. A jointly held or marital asset requires the actual interest and applicable property regime to be established. The gross estate, allowable deductions and surviving spouse's share must be reconciled under the relevant rules. A certificate naming two people does not justify doubling or halving every value without further evidence.

For a citizen or resident estate under the applicable TRAIN provisions, the standard deduction is PHP 5,000,000. The qualifying family-home deduction is limited to PHP 10,000,000 within the statutory conditions and the decedent's relevant interest. Nonresident alien estates have different scope and deduction provisions, including a different standard deduction. Do not apply the citizen/resident figures universally. [2]

An original simplified unmarried Philippine-citizen estate has established gross estate PHP 20,000,000, qualified family-home deduction PHP 9,000,000, standard deduction PHP 5,000,000 and other properly supported allowable deductions PHP 1,000,000. No other adjustments apply. Net taxable estate is PHP 5,000,000 and estate tax is PHP 300,000. The exercise assumes the deductions are valid and avoids unresolved marital allocation.

A deduction does not mean that the asset was never included in gross estate. Display inclusion and deduction separately to prevent double counting. A mortgage also requires the statutory debt conditions and related inclusion treatment; a stated outstanding balance is not automatically an allowable deduction in every file.

The estate-tax return requirement can apply to an estate containing registered or registrable property even where deductions result in no tax due. TRAIN's general filing period is one year from death, with the relevant rules for extensions and payment arrangements needing verification. A zero arithmetic result does not itself authorize transfer registration without the required tax processing. [2]

12 Distinguishing inheritance from a later sale

The transmission at death and the heirs' later sale are separate events. An estate-tax computation at the death date does not automatically pay the income tax and DST on a later sale to a buyer. An heir's later transaction requires its own taxpayer, interest, capital or ordinary classification, price, operative valuation base and date.

An extrajudicial settlement can evidence succession and allocation among heirs, but it does not mean every additional transfer in the instrument is tax-free. Investigate whether the document merely partitions inherited rights, contains a sale, includes a gratuitous renunciation in favor of a specified person or conveys more than the transferor's existing share. The actual structure matters.

If an estate is unsettled, do not describe a purported seller as the sole owner merely because that person holds the old title or pays RPT. Establish authority, heirs, estate documents, property regime and the interest being conveyed. The appraisal and tax file should agree on what interest is transferred. Administrative valuation cannot cure an unauthorized disposition.

A death in 2016 and a death in 2026 do not necessarily use the same estate-tax rates and deductions. TRAIN is not mechanically retroactive to every old unsettled estate. Any applicable amnesty is a separate, date-specific law with its own coverage and deadline. This chapter does not assume an estate-tax amnesty remains open for a current request.

Likewise, the RPT amnesty discussed in Lesson 18 concerns a different tax and original period. An announcement about one program does not extend another program. For a present transaction, obtain the actual operative relief authority rather than relying on a social-media summary or a proposal awaiting enactment.

The practical study habit is to draw an event chronology: acquisition, death or gift, estate processing, later conveyance and registration. Use each event's governing date and transaction type. A document signed later can record an earlier event; it does not automatically reset every tax regime to the signing year.

13 Local transfer tax and other closing costs

Local transfer tax is different from national CGT, CWT, VAT and DST. Section 135 of RA 7160 authorizes the provincial tax on sale, donation, barter or other transfer of real-property ownership, with its prescribed value-base comparison and ceiling of 0.5%. Section 151 gives cities the relevant authority for higher rates, producing the commonly cited 0.75% city ceiling for this tax. The actual enacted local rate and operative valuation framework must still be checked. [3, 10]

Do not describe 0.5% and 0.75% as every province's or city's mandatory rates. An ordinary municipality outside Metropolitan Manila is not automatically a city for this purpose. Verify the actual collecting authority, ordinance, base and locality. This is the same jurisdiction habit developed in the RPT lesson, applied to a different tax.

For a simplified provincial exercise, the accepted local transfer base is PHP 7,000,000 and enacted rate is stipulated at 0.5%. Tax is PHP 35,000. An otherwise identical city exercise stipulating 0.75% gives PHP 52,500. The difference is local policy and jurisdiction, not proof of a different national CGT category.

Section 135 also addresses the responsible person and basic sixty-day payment period from the deed's execution or the decedent's death, as applicable. Do not start every local transfer-tax period from the date the new title is released. Current local implementation, document type and applicable relief must be established. An estate file needs its death-event inquiry rather than automatically using the later settlement signing date. [10]

Registration fees, notarial charges, professional fees, association charges and loan costs are not all transfer taxes. Their bases and payees differ. A percentage list titled "all taxes" can hide non-tax charges or omit a separately payable levy. Present taxes and other costs with their correct labels and evidence.

The contract can assign who economically bears a cost, while the law determines the statutory duty. A buyer's acquisition budget should reflect the agreed costs and any recoverable amounts. A seller's proceeds statement should reflect the actual price, retained liabilities and agreed allocations. Neither budget substitutes for the property's supported market-value opinion.

14 Returns deadlines and registration evidence

Common property-transfer forms include 1706 for capital-asset CGT, 1606 for ordinary-asset real-property withholding and 2000-OT for covered one-time DST. Donor and estate returns have their own forms and taxable-event rules. Choosing a familiar form before identifying the transaction can produce the wrong tax path. [4, 7]

The checked 1706 instructions state the ordinary thirty-day filing and payment period following the sale, exchange or disposition. The checked 1606 instructions state the basic tenth day following the end of the transaction month, subject to qualifying installment treatment and applicable rules. The ordinary 2000-OT

reference is five days after the close of the month of the taxable document. These are different clocks. Current channels, taxpayer exceptions, nonworking-day treatment and later extensions require verification. [7, 11]

A cash-sale exercise whose deed is executed on April 20 therefore identifies a thirty-day-from-sale CGT clock, a month-end-based DST clock and a separate local transfer clock. It does not assume that waiting for BIR's computation sheet stops the periods. Precise calendar due dates should be checked against the operative tax calendar and any applicable issuance.

Item	Basic event or clock	Check before filing
1706 CGT	30 days following sale or disposition	Eligibility current channel exceptions
1606 CWT	10th day after transaction month-end	Required withholding installment rules
2000-OT DST	5 days after taxable-document month-end	Covered document current procedure
Donor return	30 days after gift	Annual aggregation and prior payment
Estate return	1 year from death	Governing regime permitted arrangements
Local transfer	Section 135 60-day event reference	Local ordinance deed or death context

Keep the deed, title and parcel records, tax declarations for land and improvements, operative valuation schedule, taxpayer identification, authority documents, return acknowledgments and payment evidence reconciled. If an agent signs or processes the transaction, verify the relevant SPA or corporate authority. Do not certify "no improvement" merely because the old land declaration omits an existing building.

The electronic Certificate Authorizing Registration addresses tax processing for the specified transfer; it is not itself the new land title, proof of zoning permission or a cure for invalid ownership authority. Registration with the proper office remains a distinct process. Annual RPT clearance also has a separate function from national transaction-tax processing.

Avoid copying every instruction on an older form into a current manual without review. RA 12001 can affect its valuation references, and EOPT affects filing, invoicing and taxpayer-specific administration. This chapter teaches the basic form and trigger distinctions while requiring current-source confirmation for an actual submission. It does not promise that an older physical filing venue or penalty paragraph remains unchanged in every circumstance.

15 Reconcile the transaction economics

A seller's actual proceeds start with the consideration received, not the higher official tax base. Taxes can use a higher value without generating additional sale cash. Harana's price is PHP 6,000,000 while the stipulated CGT and DST base is PHP 7,000,000. Do not begin the proceeds statement at PHP 7,000,000 simply because that amount was used to compute taxes.

Assume the contract assigns Harana's seller the PHP 420,000 CGT, PHP 105,000 DST and a PHP 120,000 broker fee, and the seller must settle a PHP 1,000,000 mortgage. Ignoring all other amounts, simplified net cash is 6,000,000 − 420,000 − 105,000 − 120,000 − 1,000,000 = PHP 4,355,000. Each deduction has a distinct source and character.

The result is a net-proceeds reconciliation, not automatically the property's market value. Mortgage debt relates to the seller's financing position; selling expenses relate to the transaction; the price relates to the exchange. A market-value report should not substitute this personal cash subtotal for the value of the defined property interest.

For an ordinary-asset sale, reconcile withholding as both a closing cash deduction and a potential tax credit in the seller's income-tax computation. Do not count the withheld amount and the full uncredited final income tax as two permanent tax costs. Their timing can affect liquidity even when they ultimately reconcile through the annual return.

A seller demanding a stated amount "net of all taxes" introduces another modelling problem. If the buyer pays additional amounts for the seller or assumes obligations, the agreed consideration and tax treatment may need careful analysis. Do not gross up a net demand by a fixed percentage without establishing the taxable consideration, reference floors, contract wording and relevant BIR rules. Show provisional scenarios where those facts are unresolved.

For a development company, trace nonrecoverable acquisition taxes into the appropriate acquisition or project-cost treatment, recoverable credits into their separate accounts and loan settlements into financing. Cash paid, accounting cost and value opinion are different outputs. A transparent reconciliation allows reviewers to detect omissions, double counting and incorrectly treated credits.

16 A complete transaction-tax review

Start the review with the event and its governing date. Identify the taxpayer and the transferred interest, then establish classification and the applicable tax categories. Select the operative valuation regime and accepted bases. Verify rates, thresholds and relief using sources current for that event before completing the arithmetic.

Compute each tax separately. State whether an amount is final tax, withholding credit, output VAT, deed DST, local transfer tax or annual RPT arrears. Use the prescribed rounding unit where required. A correctly added total can still be wrong if it combines inapplicable taxes or treats a credit as a second final liability.

Build a deadline schedule tied to the actual triggers: sale or disposition, transaction month-end, taxable document month-end, gift or death. Allocate preparation, filing, remittance and registration tasks to the responsible people without confusing contractual cost allocation with statutory liability. Preserve the source and effective date supporting each entry.

If a record is missing, state the conditional alternatives and the evidence required to select one. For example, capital versus ordinary classification can change the income-tax and withholding route; VAT exemption can change output tax; a new effective SMV can change the reference comparison. An unexplained assumption in a spreadsheet is not an approved tax conclusion.

For examination revision, identify the specific mistake in a wrong choice. Was it 6% of actual gain, assessed value substituted for FMV, CWT treated as final CGT, the dwelling threshold applied to bare land, DST fractional units ignored or an annual gift allowance repeated for each donee? Explain the rule and then recalculate.

Lessons 20–22 develop RA 12001's purposes, institutions, SMV process and transition. Carry forward this chapter's distinction between value, tax base, tax rate and tax administration. A valuation reform changes how an official base is prepared and used; it does not make all transactions identical or remove the need to classify the taxpayer and event.

17 Ten worked transaction cases

Attempt each question first. Show the transaction category, operative regime, accepted base and tax mechanism. Exercise eligibility and local inputs are expressly supplied and do not certify an actual transaction.

Case 1 Classify the seller's asset

Question: Compare a developer's customer-sale inventory lot with an individual's personal land interest established as outside the ordinary-asset exclusions. Does the buyer's intended use control both sellers' classification?

Solution: The developer's inventory follows the ordinary-asset path. The established individual capital asset follows the applicable capital-asset path. The buyer's future use does not itself determine the seller's classification.

Reasoning: The property is classified in the relevant taxpayer's hands. Physical description, zoning class and accounting fixed-asset labels do not alone decide national income-tax treatment.

Case 2 Select the transitional CGT base

Question: A qualifying individual capital-asset cash sale has price PHP 6,000,000, applicable transitional zonal value PHP 7,000,000 and assessor schedule FMV PHP 5,500,000. Assessed value is PHP 2,750,000. No exemption applies. Compute final CGT.

Solution: Select PHP 7,000,000 from the applicable price and market-value references. CGT = 7,000,000 × 6% = PHP 420,000.

Reasoning: The exercise expressly establishes the transitional regime. Assessed value is not the assessor's FMV. Historical cost and actual accounting gain do not replace the prescribed presumptive base.

Case 3 Partial principal-residence relief

Question: An eligible natural person sells a qualifying principal residence for PHP 8,000,000. The applicable tax base is PHP 9,000,000. Qualifying reinvestment is PHP 6,000,000; all other conditions are stipulated satisfied. Compute tax on the unutilized portion.

Solution: Unutilized proceeds = PHP 2,000,000. Fraction = 2,000,000 ÷ 8,000,000 = 25%. Taxable portion = 9,000,000 × 25% = PHP 2,250,000. Tax = PHP 135,000.

Reasoning: The fraction's denominator is gross selling price. The fraction applies to the higher applicable base. The case does not waive the notification, timing, principal-use and other requirements.

Case 4 Withholding is a credit

Question: An ordinary-asset sale by a qualified habitual seller has price PHP 6,000,000 and stipulated CWT base PHP 7,000,000. Buyer withholding is required, no exemption applies and rate is 5%. The seller's final regular income-tax liability before this credit is stipulated PHP 300,000. What are withholding and excess credit?

Solution: CWT = PHP 350,000. The comparison with PHP 300,000 final liability shows PHP 50,000 excess credit, with no other credits or tax complications supplied.

Reasoning: Do not add PHP 350,000 and PHP 300,000 as two permanent income-tax charges. Applicable credit, carryover or refund procedures govern the excess; it is not an automatically approved cash refund.

Case 5 Inclusive VAT arithmetic

Question: A fully taxable transaction has accepted net VAT base PHP 5,000,000, no higher-base issue, 12% VAT and quoted total PHP 5,600,000 inclusive. Calculate output VAT and show how to extract it from the inclusive total.

Solution: Output VAT = PHP 600,000. Net base = 5,600,000 ÷ 1.12 = PHP 5,000,000. Embedded VAT = 5,600,000 × 12/112 = PHP 600,000.

Reasoning: Multiplying the inclusive total by 12% incorrectly produces PHP 672,000. This case establishes output VAT only; net VAT payable requires relevant input credits and other transactions.

Case 6 DST fractional units

Question: A taxable deed has accepted section 196 base PHP 7,000,001, with no exemption, special government base or encumbrance issue. Apply PHP 15 per PHP 1,000 or fraction.

Solution: Chargeable units = ceiling(7,000,001 ÷ 1,000) = 7,001. DST = 7,001 × 15 = PHP 105,015.

Reasoning: The exact per-unit schedule differs from an unrounded 1.5% shortcut. A donation or mortgage must also be tested under its own applicable document and exemption rules.

Case 7 Annual donor aggregation

Question: One donor makes a PHP 100,000 taxable-category cash gift and later a land gift with accepted taxable value PHP 2,000,000 in the same calendar year. No other gifts, exclusions or deductions apply. Calculate cumulative donor's tax.

Solution: Total gifts = PHP 2,100,000. Excess over PHP 250,000 = PHP 1,850,000. Tax at 6% = PHP 111,000. The first gift generated no earlier tax to credit.

Reasoning: The allowance is annual per donor. It is not renewed per deed or donee. This donor calculation does not independently determine deed DST or any VAT deemed-sale issue.

Case 8 Net estate rather than gross parcel value

Question: An unmarried Philippine citizen dies under the applicable TRAIN regime. Established gross estate is PHP 20,000,000. Valid deductions are standard PHP 5,000,000, qualifying family home PHP 9,000,000 and other allowable PHP 1,000,000. No other adjustments apply. Calculate estate tax.

Solution: Total deductions = PHP 15,000,000. Net taxable estate = PHP 5,000,000. Estate tax = PHP 300,000.

Reasoning: The exercise establishes ownership, inclusion and valid deductions. It is not 6% of each full land parcel and does not use nonresident-alien deductions or unresolved marital allocation.

Case 9 Separate local transfer tax

Question: A province's accepted transfer-tax base is stipulated PHP 7,000,000 and its enacted rate 0.5%. Compare a city exercise with the same accepted base and enacted rate 0.75%.

Solution: Provincial tax = PHP 35,000. City tax = PHP 52,500. Difference = PHP 17,500.

Reasoning: The rates are expressly adopted exercise inputs. Their statutory reference ceilings are not mandatory nationwide rates. This levy is distinct from national CGT, CWT, VAT, DST and annual RPT.

Case 10 Price and seller cash

Question: Use Harana's price PHP 6,000,000, seller-assigned CGT PHP 420,000, seller-assigned DST PHP 105,000, broker fee PHP 120,000 and mortgage settlement PHP 1,000,000. Ignore all other items. Compute seller net cash.

Solution: Net cash = 6,000,000 − 420,000 − 105,000 − 120,000 − 1,000,000 = PHP 4,355,000.

Reasoning: The higher PHP 7,000,000 tax base is not cash received. Financing and selling expenses affect the seller's proceeds, which must not automatically be relabeled as the property's market value.

18 Transaction-tax worksheet

Suggested time: 45 minutes. Use these lines for key points and a separate sheet for full calculations. Name the accepted base and distinguish tax liability from credits, price and seller proceeds.

1 Classify two transfer paths

A developer sells a held-for-sale lot; a natural person donates a personal capital-asset parcel. Identify the separate income/transfer-tax inquiries, including why one universal 6% formula is inadequate.

_____

_____

_____

2 Apply the established regime

A qualifying capital-asset sale expressly uses the approved new-SMV regime. Actual gross price is PHP 5,000,000; effective approved SMV is PHP 5,800,000. No exemption applies. Compute CGT and explain why an obsolete zonal entry is not automatically added.

_____

_____

_____

3 Reconcile a credit

A required ordinary-asset withholding has stipulated base PHP 4,000,000 and applicable 5% rate. Final regular tax before this credit is PHP 260,000. No other credits or tax complications apply. Calculate withholding and remaining liability.

_____

_____

_____

4 Compare inclusive and exclusive VAT

The accepted VAT base is PHP 2,500,000 exclusive, and the sale is taxable at 12% with no other base issue. Compute output VAT and total inclusive price. Extract the same VAT from that total.

_____

_____

_____

Transaction worksheet continued

5 Check exact DST

A taxable ordinary conveyance has accepted section 196 base PHP 2,500,001 and no special circumstances. Compute DST with fractional-unit rounding and compare the unrounded 1.5% shortcut.

_____

_____

_____

6 Aggregate gifts

One donor makes gifts of PHP 300,000 and PHP 700,000 in the same year. No exclusions or deductions apply. Compute tax after the first gift, cumulative tax after the second, and the additional tax after crediting the first payment.

_____

_____

_____

7 Compute the established net estate

Under the applicable citizen/resident TRAIN regime, gross estate is PHP 12,000,000, qualified standard deduction PHP 5,000,000 and qualified family-home deduction PHP 4,000,000. No other adjustments apply. Compute tax and distinguish it from an heir's later sale.

_____

_____

_____

8 Prepare an event and document note

A cash-sale file needs CGT or CWT classification, deed DST, local transfer tax and registration evidence. List the basic clock distinctions, required supporting records and what the eCAR does not establish.

_____

_____

_____

19 Review and examination checks

Distinction	Check before answering
Capital versus ordinary	Classify in the relevant taxpayer's hands
Final CGT versus CWT	Presumptive final tax differs from advance credit
Price versus tax base	A higher official base does not create cash received
FMV versus assessed value	Do not insert the RPT assessment percentage
Transition versus approved SMV	Establish the operative schedule and date
Principal residence versus family home	Sale relief differs from estate deduction
Exclusive versus inclusive VAT	Multiply the net base or extract with 12/112
Output versus net VAT	Input credits and other transactions are separate
Dwelling versus bare land	The price exception is category-specific
DST percentage versus units	Round fractional chargeable units upward
Gift versus inheritance	Calendar-year gifts differ from death-date estate
Contract bearer versus statutory duty	Private allocation does not replace the law
eCAR versus title	Tax processing differs from registration
Older citation versus current code	Track the section 24(B)(4) arrangement and vetoes

Use a reproducible answer sequence

Name the taxable event, taxpayer and asset category. Identify the operative valuation regime and accepted base. Apply the appropriate rate and rounding. State whether the result is a final tax, credit, output tax, levy or proceeds subtotal. Identify the filing trigger separately.

When an input is unknown, identify the evidence needed. Do not select an exemption, schedule or seller classification merely because it produces a lower amount. For 2027 revision, recheck the dwelling threshold, official schedules, procedural changes and later legislation.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These are newly authored exercises, not actual or recalled PRC items. Use the expressly established classifications, regimes, eligibility and accepted bases in each question.

1. A developer sells land held as inventory for sale to customers. Which path should be investigated first?

A. Estate tax because land changes owner

B. Automatic principal-residence exemption

C. Ordinary-asset income taxation and applicable withholding

D. Final 6% CGT regardless of asset status

2. Which fact by itself does NOT determine capital versus ordinary status?

A. The tax declaration says residential

B. Established customer-sale inventory

C. Documented business use

D. Relevant seller activity and asset history

3. A taxable capital-asset sale has an established applicable base PHP 7,000,000. What is final real-property CGT at 6%?

A. PHP 105,000

B. PHP 350,000

C. PHP 120,000

D. PHP 420,000

4. The seller has an actual loss compared with acquisition cost, but the qualifying capital-asset transfer is taxable. What follows?

A. CGT is automatically zero

B. A cost loss does not itself cancel the presumptive CGT

C. Only DST is possible

D. Loss converts the asset to inventory

5. An expressly established transitional file supplies price PHP 6m, zonal PHP 7m, assessor schedule FMV PHP 5.5m and assessed value PHP 2.75m. Which base is selected?

A. PHP 2.75m

B. PHP 7m

C. PHP 5.5m

D. PHP 6m

6. An established approved new-SMV regime has actual gross price PHP 7.2m and effective SMV PHP 6.8m. Which comparison is correct?

A. Use the lower PHP 6.8m

B. Apply the annual RPT assessment percentage first

C. Always add every historic zonal entry

D. Use PHP 7.2m under the governing higher-of comparison

7. Partial principal-residence relief has price PHP 8m, applicable base PHP 9m and unutilized proceeds PHP 2m, with all other conditions satisfied. What is tax?

A. PHP 135,000

B. PHP 540,000

C. PHP 120,000

D. PHP 480,000

8. Which combination states the core principal-residence timing and frequency conditions?

A. Thirty months and once each year

B. Eighteen months with no notification

C. Eighteen-month reinvestment thirty-day notice and once every ten years

D. One year and once every five years

9. A required CWT exercise supplies base PHP 4m and rate 5%. How should the PHP 200,000 withholding be treated?

A. As an exemption from DST

B. As automatic final real-property CGT

C. As property market value

D. As a credit in the relevant ordinary income-tax computation

10. Final regular income tax before credit is PHP 260,000 and allowable CWT PHP 200,000. With no other items, what remains payable?

A. PHP 460,000

B. PHP 200,000

C. PHP 60,000

D. PHP 260,000 again in addition to withholding

11. A fully taxable accepted VAT base is PHP 5m exclusive. What is output VAT at 12%?

A. PHP 600,000

B. PHP 5,600,000

C. PHP 672,000

D. PHP 535,714.29

12. A PHP 5.6m price is expressly VAT inclusive with no higher-base issue. Which extraction is correct?

A. VAT = 5.6m × 12%

B. Net base = 5.6m ÷ 1.12 and VAT = PHP 600,000

C. VAT is automatically zero

D. Base = PHP 5.6m and tax extra

13. Under the established RR 1-2024 dwelling exemption, which statement is correct?

A. The price boundary includes exactly PHP 3.6m for the qualifying dwelling category

B. Every commercial lot below PHP 3.6m is exempt by this provision

C. The threshold is confirmed forever for 2027 onward

D. Only the amount over PHP 3.6m is taxed in every case

14. An ordinary taxable deed has section 196 base PHP 2,500,001. At PHP 15 per PHP 1,000 or fraction, what is DST?

A. PHP 37,500.015

B. PHP 150,000

C. PHP 37,500

D. PHP 37,515

15. One donor makes PHP 100,000 and PHP 2,000,000 gifts in one year, with no exclusions. What is cumulative donor's tax at 6% above the annual PHP 250,000 allowance?

A. PHP 105,000

B. PHP 126,000

C. PHP 111,000

D. PHP 96,000

16. A gift generates zero donor's tax because of the annual allowance. Which conclusion about DST is sound?

A. All deed DST is automatically exempt

B. Deed DST still requires its own coverage and exemption inquiry

C. DST equals donor's tax in every case

D. The allowance is a universal registration waiver

17. An established TRAIN citizen estate has gross estate PHP 12m and valid deductions PHP 9m. What is estate tax at 6% of net estate?

A. PHP 180,000

B. PHP 720,000

C. PHP 540,000

D. PHP 250,000

18. The heirs later sell a parcel after the estate-tax processing. What is correct?

A. Estate tax automatically pays every later sale tax

B. The later sale requires its own taxpayer classification base and date inquiry

C. The heirs can always use the death-date value as the current selling price

D. No document tax can apply

19. A city exercise supplies accepted local transfer base PHP 7m and enacted rate 0.75%. What is the local transfer tax?

A. PHP 35,000

B. PHP 105,000

C. PHP 420,000

D. PHP 52,500

20. What update should a reader apply when an older reviewer cites individual real-property CGT at section 24(D)?

A. Assume the real-property tax was abolished

B. Use the annual RPT rate instead

C. Track RA 12214's section 24(B)(4) arrangement and the retained real-property rule

D. Apply the shares-of-stock tax to land

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	A
2	A	12	B
3	D	13	A
4	B	14	D
5	B	15	C
6	D	16	B
7	A	17	A
8	C	18	B
9	D	19	D
10	C	20	C

1. C Inventory held for customer sales belongs to the ordinary-asset inquiry. VAT and DST are separate issues; final real-property CGT is not universal.

2. A A local residential assessment entry is not the national income-tax classification in the seller's hands. The relevant use and ordinary-asset exclusions must be examined.

3. D The prescribed final tax is 7,000,000 × 6% = PHP 420,000. It is not based merely on actual price-minus-cost gain.

4. B The qualifying real-property CGT uses its statutory presumptive base. Actual historical profit or loss does not independently remove the tax.

5. B Select the highest applicable price or market-value reference under the supplied transitional regime. Assessed value is not the assessor schedule's FMV.

6. D Section 18's approved-SMV regime compares SMV with actual gross selling price. Do not automatically perpetuate superseded references or insert the annual assessment level.

7. A Taxable portion is 9m × (2m/8m) = PHP 2.25m. At 6%, tax is PHP 135,000. The fraction uses gross price as denominator.

8. C The checked statutory exception requires the stated reinvestment, notice and frequency conditions, plus the other eligibility and implementation requirements. Residential ownership alone does not establish relief.

9. D CWT is an advance credit subject to the applicable tax and evidence rules. It is not a second final capital-gains tax.

10. C Deduct the stipulated credit: PHP 260,000 − PHP 200,000 = PHP 60,000. Do not count the credit and full uncredited liability as two permanent costs.

Answer explanations continued

11. A Output VAT is PHP 600,000 and inclusive total PHP 5.6m. Net payable requires input credits and other transactions that are not supplied.

12. B The accepted inclusive amount contains VAT. Division by 1.12 yields PHP 5m net base; the embedded tax is PHP 600,000.

13. A The qualifying dwelling threshold is inclusive and date-dependent. Bare lots and commercial land do not receive that particular dwelling exemption solely from their price.

14. D Round chargeable units upward to 2,501, then multiply by PHP 15. The 1.5% unrounded shortcut misses a fractional-unit charge.

15. C Cumulative gifts are PHP 2.1m; excess over PHP 250,000 is PHP 1.85m. Tax is PHP 111,000. The allowance is not renewed per deed or recipient.

16. B Zero donor's tax after the annual allowance differs from the specified gift exemptions referenced by section 196. Test DST separately.

17. A Net estate is PHP 3m and tax PHP 180,000. The exercise establishes deductions; do not apply 6% to full gross value without the net-estate computation.

18. B Inheritance and a later onerous sale are separate events. Estate settlement does not automatically satisfy the later sale's income and document-tax obligations.

19. D The supplied local computation is 7m × 0.75% = PHP 52,500. It is distinct from national CGT and DST, and the enacted rate must be established.

20. C RA 12214 reorganizes the section 24 references and lists real-property capital gains under 24(B)(4). An older citation needs a cross-reference rather than an assumption that the tax disappeared.

Worksheet model responses

Response 1

The developer's inventory sale follows ordinary income taxation, required CWT subject to the applicable rules, a separate VAT inquiry and deed DST. The personal capital-asset donation follows donor's-tax valuation and annual aggregation, with a separate deed-DST inquiry. Do not apply final real-property CGT to every gift or treat every 6% withholding as final CGT. Establish VAT context and any exemption for each transfer.

Response 2

The established section 18 approved-SMV comparison selects PHP 5,800,000 over actual price PHP 5,000,000. CGT = 5,800,000 × 6% = PHP 348,000. Do not continue a superseded third reference automatically after the replacement regime is established. An actual file still needs the schedule's effective status, parcel entry and applicable implementation verified.

Response 3

CWT = 4,000,000 × 5% = PHP 200,000. Remaining regular liability after the stipulated credit = 260,000 − 200,000 = PHP 60,000. Total ordinary tax is PHP 260,000, of which PHP 200,000 was prepaid by withholding. It is not PHP 460,000. Preserve evidence establishing the income and credit.

Response 4

Output VAT = 2,500,000 × 12% = PHP 300,000. Inclusive total = PHP 2,800,000. Net base = 2,800,000 ÷ 1.12 = PHP 2,500,000; embedded VAT = 2,800,000 × 12/112 = PHP 300,000. Input credits and other transactions are not supplied, so net VAT payable is not determined.

Response 5

Units = ceiling(2,500,001 ÷ 1,000) = 2,501. DST = 2,501 × PHP 15 = PHP 37,515. The unrounded shortcut gives PHP 37,500.015, which misses the fraction-of-unit charge. The exercise supplies the accepted base and excludes special government, exemption and encumbrance issues.

Response 6

After first gift: (300,000 − 250,000) × 6% = PHP 3,000. After the second: cumulative gifts PHP 1,000,000; taxable excess PHP 750,000; cumulative tax PHP 45,000. Additional tax after crediting prior PHP 3,000 is PHP 42,000. The annual allowance is used once for that donor, not separately for each gift.

Response 7

Net estate = 12,000,000 − 5,000,000 − 4,000,000 = PHP 3,000,000. Tax = PHP 180,000. Inclusion and deductions are stipulated valid. The later heir's sale is a separate event requiring classification, date, consideration, operative valuation base and the applicable income-tax and document-tax treatment.

Response 8

CGT ordinarily uses the checked thirty-day-from-sale clock; 1606's basic instruction is the tenth day following transaction month-end, subject to applicable rules; deed DST ordinarily uses five days after taxable-document month-end; local transfer has its distinct section 135 sixty-day event reference. Verify current calendars and exceptions. Reconcile deed, title, land and improvement tax records, valuation evidence, authority, returns and payment acknowledgments. eCAR concerns tax processing for the specified transfer; it is not the new title, zoning permission or a cure for invalid authority.

22 Essential terms and formula review

Capital asset Property outside the relevant ordinary-asset exclusions in the taxpayer's hands.

Ordinary asset Inventory customer-sale or qualifying business-use property under the applicable rules.

Final real-property CGT The qualifying presumptive capital-asset transfer tax.

CWT Creditable withholding tax reconciled in the relevant income-tax computation.

VAT inclusive A price expressly containing its applicable output VAT.

Output VAT VAT on taxable transactions before relevant input credits and other adjustments.

DST Documentary stamp tax on a covered document or transaction.

Net estate The estate-tax base after supported statutory adjustments and deductions.

Annual donor allowance The applicable calendar-year gift allowance used once for each donor.

Local transfer tax The distinct enacted local levy on the ownership-transfer event.

eCAR Electronic Certificate Authorizing Registration for the specified tax-processed transfer.

Net proceeds A transaction cash reconciliation after stated obligations and costs.

Supplied exercise	Formula
Qualifying final CGT	Accepted operative base × 6%
Partial residence tax	Applicable base × unutilized proceeds / gross price × 6%
Required CWT	Accepted withholding base × applicable category rate
Exclusive output VAT	Accepted net base × 12%
Embedded VAT	Accepted inclusive total × 12/112
Ordinary deed DST	Ceiling(accepted base / 1,000) × PHP 15
Donor cumulative tax	6% × taxable excess over annual allowance
Estate tax	Established net taxable estate × 6%
Seller net cash	Actual receipts minus allocated costs and settlements

These formulas apply to the established exercise conditions. They do not prove classification, exemption, tax-base convention, parcel rollout, credit entitlement or an actual filing deadline.

23 Sources and 2027 preparation status

Bracketed references identify the primary legislation and official BIR or DOF material below. Selected provisions and official instructions were reviewed on 12 October 2026. All lesson explanations and assessments are original. Exercise values, accepted bases, taxpayer rates and local policies are supplied learning inputs.

RA 8424 is an original statutory text, not a consolidated 2026 code. It is used with the specified later laws. RA 12214's section 24(B)(4) arrangement is cross-referenced to older section 24(D) citations. The proposed EOPT micro-taxpayer withholding exception was vetoed and is not taught as operative law.

The readable RMC 99-2023 and RR 1-2024 documents used here are official BIR digests. RR 11-2018's selected withholding provisions and the official 2023-circularized 1706 and 1606 instructions were readable. Old form references are not presented as a complete current filing-venue, penalty or invoicing manual. Current implementation and taxpayer-specific exceptions require their operative sources.

RA 12001's approved-SMV and transition provisions are distinguished. No actual parcel's effective SMV, BIR confirmation, local ordinance or tax ruling was examined. VAT calculations stipulate the accepted base; they do not certify every interaction of EOPT, property VAT rules and SMV rollout. Actual gift and estate valuations also require the correct event date and interests.

The verified dwelling threshold is PHP 3,600,000 effective January 1, 2024, with the required periodic adjustment. A 2027 threshold is not assumed. No currently open estate-tax or RPT amnesty, comprehensive later-issuance audit or confirmed 2027 PRC examination program is asserted. Recheck current official sources before examination and professional application.

1 RA 8424 original Tax Code

11 December 1997. Selected original sections 24(D), 27(D)(5), 39, 85, 102, 103, 173 and 196. Read with later legislation rather than treating the original statute as a consolidated current code.

https://lawphil.net/statutes/repacts/ra1997/ra_8424_1997.html

2 RA 10963 TRAIN

19 December 2017. Selected changes to sections 84, 86, 90, 99–101 and 196. Estate and donor rates, deductions, event rules and the deed-DST schedule. Relevant original provisions remain subject to later law and operative valuation rules.

https://lawphil.net/statutes/repacts/ra2017/ra_10963_2017.html

3 RA 12001 valuation reform

13 June 2024. Selected sections 16, 18, 29, 31 and 38. Approved-SMV use, valuation transition, saving and amendment provisions. Actual schedule effectivity and implementation are separate checks.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

4 BIR RMC 99-2023 official digest

3 October 2023. Ordinary-asset categories, income-tax credit distinction, VAT and document-tax context. The older dwelling threshold and official-receipt discussion are not adopted as current universal instructions.

https://bir-cdn.bir.gov.ph/local/pdf/RMC%20No.%2099-2023.pdf

5 BIR RR 11-2018

31 January 2018. Selected section 2 provisions amending RR 2-98 section 2.57.2(F), especially pages 11–12: ordinary-asset withholding base, selling-price bands and seller categories. Apply later law and any relevant exceptions.

https://bir-cdn.bir.gov.ph/local/pdf/RR%20No.%2011-2018.pdf

6 BIR RR 1-2024 official digest

Official digest identifying the PHP 3,600,000 qualifying house-and-lot and dwelling threshold effective January 1, 2024 and the three-year CPI adjustment. It does not establish a future 2027 amount.

https://bir-cdn.bir.gov.ph/BIR/pdf/RR%201-2024.pdf

7 BIR 1706 and 1606 instructions

Instructions circularized with RMC 9-2023, January 2018 versions. Basic form roles, rate/base instructions and event clocks. Older valuation references and filing details must be reconciled with current law. The first URL is 1706; the second is 1606.

https://bir-cdn.bir.gov.ph/local/pdf/RMC%20No.%209-2023%20Annex%20B%20Attachment.pdf

7 continued BIR 1606 instructions

Ordinary-asset real-property withholding return guidance used with the same limitations stated above.

https://bir-cdn.bir.gov.ph/local/pdf/RMC%20No.%209-2023%20Annex%20A%20Attachment.pdf

8 RA 11534 CREATE

26 March 2021. Selected section 27 regular domestic corporate tax provisions and relevant VAT context. Exercise use of 25% is stipulated and does not decide a complete corporate return, MCIT or special regime.

https://lawphil.net/statutes/repacts/ra2021/ra_11534_2021.html

9 RA 11976 Ease of Paying Taxes

5 January 2024. Selected operative amendments on returns, credits, donor payment, VAT base and invoices. Read with the presidential veto; the printed micro-taxpayer withholding exception is not operative.

https://lawphil.net/statutes/repacts/ra2024/ra_11976_2024.html

10 RA 7160 Local Government Code

10 October 1991. Sections 135 and 151 provide local transfer-tax authority, reference limits and the event-based payment provision, read with RA 12001 and actual local ordinances.

https://lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

11 BIR RMC 33-2021 official digest

3 March 2021. Identifies the basic 2000-OT five-days-after-month-end filing and payment clock. Current channels, calendar treatment and applicable later exceptions require checking.

https://bir-cdn.bir.gov.ph/local/pdf/RMC%20No.%2033-2021.pdf

12 RA 12214 Capital Markets Efficiency Promotion Act

29 May 2025. Selected amendments to sections 24 and 27. Tracks the section 24(B)(4) real-property capital-gains arrangement alongside older citations. This lesson does not teach the separate securities-tax regime.

https://lawphil.net/statutes/repacts/ra2025/ra_12214_2025.html

13 DOF confirmation of the EOPT veto

Official DOF notice, 8 January 2024. Confirms the presidential veto of the proposed micro-taxpayer exemption from creditable withholding. The BIR-hosted veto attachment is listed for further direct review.

https://www.dof.gov.ph/newly-signed-ease-of-paying-taxes-act-to-modernize-ph-tax-administration-and-strengthen-taxpayer-rights/

13 continued BIR-circularized veto attachment

Presidential veto message attached to RMC 3-2024, Annex B. The official indexed text and DOF confirmation establish the narrow veto point; the attachment is a scanned PDF.

https://bir-cdn.bir.gov.ph/local/pdf/RMC%20No.%203-2024%20Annex%20B.pdf

REALEX

Lesson 20

RPVARA Purposes Institutions and Valuation Standards

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

A supported property value and a preferred tax burden are different questions. RPVARA assigns technical valuation, standards oversight, consultation, certification, local policy and collection to distinct institutional functions. This lesson teaches you to identify the correct actor and evidence for each action.

The chapter follows the canonical curriculum objectives on separation of valuation from tax policy, allocation of responsibilities and the link between market value, PVS and property information. It includes an original responsibility map, comparisons, law-to-IRR locators and practical evidence checks.

Harana Reform File and all calculations, cases and questions are fictional original teaching work. Selected IRR provisions were checked visually against an official BIR-circularized copy. Numerical policy scenarios are expressly uncapped illustrations, not adopted local rates or determinations of actual relief. The source notes distinguish full-text checks from publication evidence and outstanding detailed PVS verification.

Your learning goals

- Explain why technical values should be separated from tax-policy targets.
- Distinguish a common value basis from a uniform nationwide unit price.
- Allocate assessor BLGF DOF sanggunian and treasurer functions.
- Place RPVS RPVU RPIS and PVS correctly.
- Distinguish mandatory local unit creation from the municipal option.
- Compare central and regional consultative roles.
- Explain certification remand and content-control limits.
- Connect PVS with IVS and the national approval framework.
- Separate publication evidence from a full standards-clause check.
- Review transaction units duplicates and model evidence.
- Explain valuation of exempt property and depreciable assets.
- Use accurate law-to-IRR locators and report implementation status.

Study plan: Allow four to five hours over two sessions. Read sections 1–8 for the value-policy distinction and institutions, then sections 9–16 for committees, standards and evidence. Complete the ten cases, two-page worksheet and twenty-question test before checking the model responses.

1 What RPVARA is intended to change

RA 12001 is the Real Property Valuation and Assessment Reform Act, commonly abbreviated RPVARA. Its purpose is broader than updating a tax bill or granting temporary relief. It establishes a standards-based valuation framework, assigns institutional responsibilities and supports a common property-information system. Understand that architecture before memorizing individual procedures or deadlines. [1, 2]

The law's purposes include maintaining Philippine Valuation Standards, adopting market value as a common valuation base, supporting LGU fiscal autonomy, separating valuation from tax policy and administration, maintaining transaction information, supporting research and promoting digital technology. Transparency is expressly read with data-privacy requirements. These purposes reinforce one another rather than authorizing a single office to perform every task.

An outdated schedule can cause inconsistent official bases and weaken confidence in assessment. A technically unsupported update can create another problem even when it raises revenue. The reform's answer is not to instruct valuers to select whatever number balances the budget. It is to improve the standards, evidence and institutional process through which values are prepared and used.

The original Harana Reform File concerns a fictional city considering a valuation update. Its working group has transaction records, building-cost information, an existing schedule and a proposed revenue target. It must distinguish the technical evidence supporting values from the policy choices affecting taxes. The case illustrates responsibilities; it does not certify an actual city's schedule, ordinance or implementation status.

Lesson 18 explained the assessment ladder and Lesson 19 explained transaction-tax bases. Lesson 20 now examines who develops the standards, prepares valuation work, reviews compliance, certifies a schedule, sets local tax policy and administers collection. Lessons 21 and 22 develop the SMV process and transition in detail, including their specific qualifications and relief provisions.

The central examination question is often institutional: which body should perform the proposed action, and on what authority? A familiar acronym is not enough. State the function, output and source. Distinguish a law's mandate from evidence that the relevant office, system or approved schedule is already operating in a particular locality.

2 A common base is not a common price

Market value is a defined basis of value, not a nationwide fixed amount per square metre. Properties differ in location, rights, use, access, improvements, restrictions and market conditions. Nationally consistent valuation means consistent principles and supportable application, not identical unit values for a roadside commercial parcel and an interior agricultural parcel.

The statutory market-value definition concerns a date-specific, properly marketed, arm's-length exchange between informed, prudent and unpressured parties. A single observed price may be useful evidence but may involve special terms, compulsion, a different interest or an unusual buyer. Verify the transaction before using it to infer the value of another property or a class of properties. [1, 2]

Harana's fictitious records include a full ownership sale, a lease premium and a mortgage amount. Each involves property, but those numbers do not all represent the same exchange. A mortgage amount can reflect lending policy; a lease payment reflects the specified lease interest and terms. Combining them as if all were freehold sale prices would not produce a reliable common valuation base.

A common official valuation framework can improve coordination among agencies without turning every statutory tax into the same tax. Rates, exemptions, taxable events and the higher-of comparisons applicable to particular transactions remain separate legal inquiries. The existence of an SMV does not automatically make annual RPT, CGT and donor's tax interchangeable.

Likewise, a private appraisal for a defined lending or investment decision is not automatically identical to an administrative schedule entry. Identify the date, interest, condition, basis and purpose of each amount. If a different basis is used for a distinct assignment, explain it under the applicable standards; do not relabel it as the law's market-value base merely because the numerical result is convenient.

The useful professional question is whether the amounts are comparable and serve the same purpose. A difference may reveal an outdated schedule, a property-specific adjustment, a different date or a different measurement. Investigate the cause before asserting either that all differences are errors or that every difference is justified.

3 Separating valuation from tax policy

Valuation asks what the property or defined interest is worth under the applicable basis and date. Tax policy asks which assessment levels, rates, exemptions or lawful relief apply. Tax administration applies those rules to records, notices, bills, payments and enforcement. RA 12001 expressly separates these functions. They remain connected through the evidence and computation, but one should not be used to falsify another. [1 section 3; 2 section 3]

Assume a simplified policy exercise supplies market value PHP 10,000,000, assessment level 20% and combined basic-plus-SEF levy rate 3% of assessed value. Assessed value is PHP 2,000,000 and annual tax PHP 60,000. If supported market value rises to PHP 15,000,000 with policy percentages unchanged, assessed value becomes PHP 3,000,000 and the raw annual tax PHP 90,000.

That exercise shows a 50% increase in the value base and raw tax under unchanged percentages. It does not mean the valuer selected a 50% tax increase as a policy. Conversely, a local policy decision to moderate the burden should not require the assessor to invent a lower market value. The evidence and the policy must be shown separately.

A purely mathematical burden-preserving alternative holds the combined 3% levy constant and solves for the level: 60,000 ÷ (15,000,000 × 3%) = 13.3333%. At that supplied level, assessed value returns to PHP 2,000,000 and raw tax to PHP 60,000. This is an uncapped educational illustration. It does not prove that the level is lawfully adopted, available for that class, or applicable under first-year caps and other actual rules.

Uncapped teaching scenario	MV PHP	AL	Raw tax PHP
Original	10,000,000	20%	60,000
Revised value unchanged policy	15,000,000	20%	90,000
Mathematical level alternative	15,000,000	13.3333%	60,000

Table note: The combined levy is supplied at 3% of assessed value. The last row uses the exact repeating fraction; the displayed percentage is rounded. Actual local eligibility, enactment, caps and relief are not established.

Section 17 provides a revenue and tax impact report prepared by the assessor in coordination with the treasurer, including three proposed options involving assessment levels and tax rates for sanggunian consideration. The IRR addresses this in sections 35–38. Reporting alternatives preserves the supported valuation while presenting policy consequences to the appropriate decision maker. The report itself is not an enacted ordinance. [1, 2]

For an examination answer, identify which input the proposed action changes. A demand to reduce the evidenced value to meet a revenue ceiling is different from a lawful proposal to change a policy percentage. Refusing an unsupported value does not prevent the technical team from explaining tax impacts and assisting with lawful alternatives.

4 Definitions that control the responsibility map

Section 4 supplies the vocabulary needed to read the rest of the Act. Valuation is an analytical process leading to a supportable estimate or opinion for a specific date and purpose. Assessment is broader than a final multiplication: it includes discovery, listing, classification and appraisal in determining the taxable value or proportion. An assessment level converts the market-value base to assessed value. [1, 2]

The assessor definition concerns a duly licensed appraiser within the LGU performing appraisal and assessment of real properties, including plant, machinery and equipment. The statute includes assistant assessors; the IRR also specifies the PHIVIDEC-IA assessor in its definition. A job title or appointment document should not be assumed to substitute for the relevant licensing and qualification requirements.

Real estate describes the physical property and its attached additions or improvements. Real property concerns the rights, interests and benefits associated with ownership. A valuation file must establish both the physical subject and the relevant interest. A digital polygon without the rights inquiry is incomplete for an assignment where those rights materially affect the conclusion.

An improvement is a valuable addition or adaptation beyond mere repair or replacement within the statutory definition. Depreciation includes reasonable allowance for wear, exhaustion and obsolescence. The existence of a recently paid construction invoice does not establish that every cost adds the same amount to current market value or that an older building has no value.

The statutory SMV definition describes a table of base unit market values for kinds of real property except machinery. Property not specified in the SMV requires its current market-value appraisal and the prescribed actual-use assessment treatment. This does not mean machinery is outside the reform or all machinery is tax-free. Machinery has its own valuation inquiry rather than automatic adoption of a land unit value.

Special purpose property is defined by its design, construction and development for a particular use and the difficulty of economic conversion. A highly specialized facility may require appropriate valuation techniques and specialist evidence. Its unusual character does not authorize an unsupported percentage discount or an automatic zero value because few direct sales exist.

5 BLGF as the lead implementation agency

Section 5 identifies BLGF within DOF as the primary agency leading implementation. Its functions include developing and maintaining PVS, reviewing SMV compliance and recommending certification, issuing valuation-policy interpretations, providing technical assistance and maintaining relevant property information. The role combines standards leadership and technical oversight, not the collection of every parcel’s annual tax. [1 section 5; 2 section 5]

The IRR specifies advisory opinions and clarificatory issuances for interpretation of valuation policies, standards and SMV implementation. If Harana's assessors encounter a recurring ambiguity about a valuation rule, that technical-policy question can be framed for the appropriate BLGF function. A request for clarification should identify the disputed provision and facts rather than merely requesting approval of an unexplained figure.

BLGF also supports training, research and a roster of licensed local government appraisers and assessors in coordination with PRC. A roster helps institutional oversight; it does not replace professional registration or grant an unlicensed person a right to practise. Consultative participation also does not confer the statutory decision-making powers of a public assessor.

Technical supervision is expressed through compliance reporting, capacity building, education and training. A valuation workpaper should therefore be reviewable. Keep the relevant data sources, selection rationale, assumptions, model and conclusions connected. A signed cover sheet without that supporting record may not answer a technical review finding.

Section 5 also addresses procedures in the assessor's office and RPIS-related administrative fees, fines and penalties, expressly providing that LGUs are not charged fees or fines for using RPIS. This specific protection should not be expanded into a statement that every private user has free unrestricted access to all data. The law's access and privacy provisions remain relevant.

When allocating a task, use the actual function. "Send it to BLGF" may be incomplete unless the file states whether it seeks technical assistance, a standards clarification, SMV review or another authorized service. A precise request helps preserve the distinction between valuation oversight and a taxpayer's separate statutory remedy.

Institution or body	Core function in the map	Do not confuse with
Local assessor	Property evidence appraisal assessment and proposal	Local rate enactment
BLGF and RPVS	Standards technical oversight assistance and review	Every local payment ledger
BLGF regional office	Regional implementation review and coordination	A consultative vote
Secretary of Finance	SMV standards-compliance certification	Unsupported content control
Sanggunian	Lawful local policy and budget decisions	Automatic PVS certification
Treasurer	Collection administration and impact-report coordination	Independent standards adoption
Consultative committees	Standards and stakeholder discussion	LBAA or CBAA adjudication
PRC and PRBRES	Relevant professional licensing and certification role	Local tax-rate policy

6 RPVS and RPVU are different bodies

The Real Property Valuation Service, RPVS, is established within BLGF. The Real Property Valuation Unit, RPVU, is established under the relevant local assessor's office. Their names differ by one word but their institutional

locations and functions differ. Do not use them interchangeably in an organization chart, report or examination answer. [1 sections 6–8; 2 sections 6–9]

The reorganized BLGF is to be headed by an Assistant Secretary. The RPVS has counterpart personnel in BLGF regional offices. The statute subjects organizational structure and staffing to DBM evaluation and approval in accordance with civil-service rules. Those provisions establish the design and approval framework; they are not proof of the current names or filled positions in every office.

IRR section 6.2 details RPVS functions, including standards development, policy support, technical assistance, SMV monitoring and review, implementation of the information system in coordination with DICT, links with appraisal groups and a licensed-practitioner listing. These functions support the national and regional architecture rather than replacing the LGU's preparation work.

The head of BLGF is responsible for day-to-day performance and internal management and governance of RPVS under section 7. The IRR also provides for operational guidelines. A local chief executive is not, merely by heading the LGU, the manager of the national RPVS. Conversely, an RPVU's local placement does not remove the relevant technical-supervision framework.

In Harana, a proposal labelled "local RPVS office" should be checked before adoption. If the intended unit is under the city assessor, the appropriate term is RPVU. If the proposal concerns counterpart personnel in BLGF's regional office, it relates to the national service architecture. Correct terminology prevents mistakes about budget ownership, authority and reporting.

For study, anchor each acronym to an address in the institutional system. RPVS belongs within BLGF; RPVU belongs under the specified local assessor. RPIS is the information system, not a third valuation office. PVS is the standards framework, not a staff unit. Similar abbreviations are a predictable examination trap.

Acronym	Meaning	Location or function
RPVS	Real Property Valuation Service	Within BLGF with regional counterparts
RPVU	Real Property Valuation Unit	Under specified local assessor
RPIS	Real Property Information System	Property-information infrastructure
PVS	Philippine Valuation Standards	National valuation standards framework

7 Local assessors and local unit creation

The statute requires an RPVU under the local assessor in every province and city and permits municipalities to create one. The checked IRR section 9 expressly includes the lone municipality in Metropolitan Manila in the required group, with creation within two years from IRR effectivity. Component municipalities of provinces may also create an RPVU. Keep the statutory provision and the implementing detail accurately identified. [1 section 8; 2 section 9]

The RPVU's organizational structure and staffing funding belong in the annual budget of the assessor's office, approved by the sanggunian concerned. Applicable civil-service guidelines also matter. A unit should not be treated as fully created and operational simply because someone drafted a label in a budget presentation.

The local assessor's technical work includes the relevant discovery, listing, classification, appraisal and assessment functions. In the SMV framework, provincial assessors work with municipal assessors, while city and other specified assessors have their relevant preparation duties. Precise preparation and submission steps

are developed in Lesson 21. Local knowledge is an input to standards-based work, not permission to bypass standards.

An original city implementation file might need an organization decision, staffing plan, training record, property inventory, data-quality review and valuation workpapers. These are suggested evidence categories for learning, not a nationally prescribed form set. The legal requirements and the actual local administrative approvals must be established from their own sources.

A municipality that has not created an optional RPVU should not infer that its existing assessor has no duties or that property can be omitted from assessment. The unit-creation option concerns organization. It does not independently eliminate the responsibilities under the applicable assessment and valuation laws.

For an actual readiness review, separate four questions: what the law requires, what the local authorization provides, which personnel are qualified and assigned, and what work has actually been completed. A statutory deadline is not evidence of implementation. This distinction is particularly important when reviewing a system after a national target date has passed.

8 Regional operations and geographic routing

BLGF regional offices act through their regional directors on valuation and SMV supervision in their regions. Their functions include implementing policies, reviewing and endorsing proposed SMVs, technical assistance, coordination and regional transaction information. This makes regional work part of the valuation system rather than an unrelated local collection office. [1 section 10; 2 section 8]

Harana's team should distinguish preparing a proposed schedule from reviewing and endorsing it. The assessor's supporting evidence remains necessary even when a regional office assists with training or technical questions. Technical assistance does not automatically turn the assisting office into the author of every local valuation assumption.

Geographic routing requires careful reading. The checked IRR sections 28–29 distinguish regions outside Metropolitan Manila from cities and the lone municipality in NCR, whose proposals go directly to BLGF Central Office. The statute's section 15 wording also refers to central review for cities. Do not silently equate these formulations or generalize a submission route from an acronym alone. For an actual filing, reconcile the applicable statute, IRR and current BLGF instructions. [1, 2]

This lesson emphasizes the institutional distinction rather than issuing a parcel-specific or LGU-specific routing decision. Lesson 21 will treat the submission and review process and its source wording. A question expressly asking what IRR section 28 states should be answered from that provision; a professional instruction must also address the governing legal framework and current implementation.

The Regional Consultative Committee is a separate forum from the regional office's technical review function. The regional director's chairmanship does not make every committee discussion an endorsement decision. A committee report can identify recurring market or implementation concerns while a specific proposed SMV still requires the proper review record.

A useful routing note names the locality, preparation authority, receiving office, requested action, supporting documents and controlling provision. Avoid "regional approval" as a vague label when the actual function is review and endorsement. The language should allow another person to verify who has acted and what remains outstanding.

9 Consultative committees and representation

The Central Consultative Committee serves as a forum for valuation standards and related concerns. It is chaired by the head of BLGF. Statutory representation includes BIR, DENR, BSP, the national government-assessor organization, ULAP, LRA, the private appraisal sector and the real-estate sector. Participation brings technical and stakeholder perspectives into the standards discussion. [1 section 9; 2 sections 10–12]

The IRR gives further details on composition, qualifications, nomination, selection and terms. Its section 10.3 addresses at least five years of active real-estate-appraiser practice for the specified private appraisal and real-estate sector representatives, with PRBRES certification. License age and active practice are not automatically the same thing. The institutional appointment and other qualifications must also be established.

The central committee meets at least once every semester. IRR section 11 provides in-person, online or hybrid meetings, at least fifteen days' notice and the BLGF-RPVS secretariat. Those minimum meeting and notice rules do not imply that the committee can only meet twice a year or that every invitation confers membership.

The Regional Consultative Committee is chaired by the BLGF regional director and meets at least once every quarter. The checked IRR sections 13–14 identify its membership and procedure, including the regional chapters of the leagues of cities and provinces. Use the actual implementing text rather than silently reproducing a duplicated member label found in a statutory web transcription.

Regional discussion topics include local market developments, stakeholder concerns, compliance outcomes, assessment-appeal information and training needs. Reports go to the central committee; IRR section 15 specifies submission within seven days from report approval. The IRR also makes the central committee the regional consultative forum for NCR. These are consultation and information functions, not a substitute for the LBAA or CBAA's appeal adjudication.

For a standards or governance question, identify whether the proposed action is consultation, technical review, certification, policy enactment or adjudication. An invited private expert may offer evidence and recommendations without acquiring the power to fix a tax rate, certify the SMV or reverse a taxpayer's assessment by committee vote.

Committee	Chair	Minimum meetings	Checked IRR notice
Central	Head of BLGF	Every semester	At least 15 days
Regional	BLGF regional director	Every quarter	At least 15 days

10 DOF certification and local policy decisions

The Secretary of Finance certifies that a proposed SMV is prepared in accordance with the latest PVS through the statutory review framework. The role is a compliance certification, not permission to prescribe unsupported parcel values to reach a preferred tax target. Section 16 expressly limits control over SMV content, and the IRR addresses certification and remand in sections 30–31. [1, 2]

If the proposed schedule does not comply with the standards, the framework calls for remand with a written explanation identifying the noncompliance. The assessor should address the finding with revised evidence or analysis through the applicable process. A compliance concern is not cured simply by changing the cover date or obtaining a politically preferred endorsement.

The existing SMV remains in effect in the stated absence-of-action circumstances. Do not assume that silence at the end of a review period automatically certifies the new schedule. Publication and effectivity requirements also matter. A submitted proposal, an endorsed proposal, a certified schedule and an effective schedule represent different statuses.

The local chief executive receives the approved schedule within the framework, and the sanggunian considers policy choices and budget matters within its powers. The revenue and tax impact report supports that consideration. A local policy resolution does not itself prove that national standards-compliance certification has occurred.

The treasurer's collection role is distinct again. A correct bill requires the operative value, classification, levels, rates and relief to be applied through the appropriate records. A treasurer cannot validate an unsupported valuation merely by accepting payment, and an assessor's technical opinion does not itself establish that an enacted rate has changed.

Harana's status register should therefore state the completed action and remaining step. "Reviewed" is insufficient unless it identifies who reviewed what, the result and the authority. Good governance makes each decision and its supporting evidence visible while keeping each institution within its assigned function.

11 Philippine and international valuation standards

RA 12001 defines PVS as the national standards for Philippine use based on IVS and duly approved by the Secretary of Finance. Section 13 assigns BLGF the development, adoption, maintenance and implementation role, with conformity to international standards and principles. The standards are used by LGU appraisers and assessors and other persons, entities or agencies conducting the specified valuation work. [1, 2]

The checked IRR separates standards development, users, periodic review and public accessibility in sections 17–20. BLGF through RPVS reviews the PVS every three years or as often as necessary, considering accepted principles and prevailing conditions. Consultation supports this work. A review cycle is not an instruction for each valuer to invent a replacement standard whenever a model gives an inconvenient result.

PVS and IVS are connected but not interchangeable labels. Identify the applicable national edition, its approval and any Philippine guidance relevant to the assignment. A foreign summary or an international announcement is not alone proof of every domestic implementing requirement. Conversely, using a local worksheet does not demonstrate compliance if the analysis fails the applicable standards.

Official DOF material records the November 2025 introduction of PVS third edition together with the new Local Assessment Manual and Mass Appraisal Guidebook second edition. Official BLGF indexed publication text identifies PVS 2025 and its IVS 2025 incorporation. The full PVS PDF was access-blocked in this research, so this chapter does not claim a clause-by-clause national-standards audit or invent its exact detailed clauses. [3, 4]

The IVSC's current-edition announcement identifies IVS effective January 31, 2025 and its updated architecture, including data, inputs, models and documentation/reporting. This supports the learning point that valuation quality includes more than selecting a formula. Exact requirements for an actual assignment must come from the full applicable standards and national guidance. [5]

A study source note should record the document title, edition, approval or effective date where verified, clause locator and access level. Do not claim to have checked a full standard when only its publication announcement or indexed text was available. Transparent source status is itself a useful professional habit.

Document	Verified in this lesson	Further detailed check
RA 12001	Selected statutory functions and definitions	Actual implementation and later issuances
Official IRR copy	Selected institutional and standards provisions	Any later operational clarification
PVS third edition	Official publication evidence and IVS connection	Full national clauses and approval details
IVSC 2025 announcement	International edition and architecture	Applicable full standards text

12 Evidence quality and reproducible models

A valuation model turns property and transaction evidence into a reasoned conclusion. Standards-based work requires attention to the evidence, not only the spreadsheet formula. Ask what interest the transaction conveys, whether the price is verified, when it occurred, which conditions apply and whether its attributes are comparable to the subject or class being analyzed.

The original Harana dataset contains four stipulated screened land observations: PHP 4,000,000 for 500 sq m, PHP 4,200,000 for 600 sq m, PHP 3,000,000 for 400 sq m and PHP 6,000,000 for 750 sq m. Their unit prices are PHP 8,000, PHP 7,000, PHP 7,500 and PHP 8,000 per sq m. Sorting produces 7,000, 7,500, 8,000, 8,000, with median PHP 7,750 per sq m.

That median is a diagnostic summary, not a PVS-mandated valuation formula or automatically the SMV unit value. Further analysis may need time, location, rights, physical features and transaction-condition adjustments, segmentation and an appropriate mass-appraisal method. The exercise expressly supplies observations for arithmetic learning and does not certify their market comparability.

Supplied record	Price PHP	Area sq m	Unit PHP per sq m
A	4,000,000	500	8,000
B	4,200,000	600	7,000
C	3,000,000	400	7,500
D	6,000,000	750	8,000

A fifth record shows PHP 2,000,000 for 0.25 hectare. Convert 0.25 hectare to 2,500 sq m before dividing; its unit amount is PHP 800 per sq m. Dividing by 0.25 without conversion gives PHP 8,000,000 per hectare, which can be valid in that unit but cannot be mixed with per-square-metre entries. A correct quotient with an incorrect unit label can corrupt the whole schedule.

Duplicate records and unusual transactions require investigation. The same deed appearing in two systems is not two independent sales. A low price may reflect restrictions or special terms rather than a simple error; a high price may involve business assets as well as land. Document exclusion, correction or retention with reasons instead of deleting any observation that disagrees with a target.

A reproducible workpaper preserves the original record, verified attributes, conversion, adjustments, selected method and reviewer's findings. Version control should show what changed and why. Automation can calculate an answer quickly; it cannot establish that the inputs describe the correct property interest and date.

13 Taxable and exempt property and depreciation

Section 14 directs valuation of real properties whether taxable or exempt using prevailing locality market values in conformity with PVS. IRR section 21 states the market-value framework, and section 22 requires consideration of depreciation for depreciable assets. Exemption concerns fiscal treatment; it does not mean that the property is valueless or excluded from the valuation inventory. [1, 2]

Harana's inventory includes a taxable commercial building and a stipulated exempt educational property. The exempt property can still require a supportable valuation for the statutory framework and other authorized purposes. A zero annual tax entry should not automatically be stored as zero market value. Keep value and exemption status in separate fields.

Depreciation includes more than chronological age. Physical deterioration, functional limitations and economic obsolescence can matter under the applicable method. A building of a given age can have a different condition from another building of the same age. Do not use age alone to infer a universal market-value percentage.

An original cost-method exercise supplies replacement cost PHP 12,000,000 and supported aggregate depreciation PHP 3,000,000. The simplified improvement indication is PHP 9,000,000. If separate land indication is PHP 5,000,000 and the case establishes additivity with no other adjustments, the simplified total is PHP 14,000,000. These are learning assumptions, not prescribed PVS depreciation rates or an actual certified valuation.

Avoid double counting the same loss under two labels. If aggregate depreciation already includes a specified functional deficiency, another subtraction for that identical deficiency requires reconciliation. Land and depreciable improvements also need their own treatment; a building's depreciation percentage is not automatically applied to the land.

The machinery definition is broad and includes specified industrial or business facilities even when they are not permanently attached. Establish the statutory category, actual use and relevant value evidence. The exclusion of machinery from the SMV table definition does not remove it from PVS-governed valuation or decide whether a particular item is taxable.

14 Property information technology and privacy

The reform links valuation with a comprehensive database of real-property transactions and construction, plant and equipment cost information. BLGF's RPIS role and the later data-supply provisions support that objective. Sale, exchange, lease, mortgage, donation and other records can contribute information, but each must retain its transaction type and relevant attributes. [1 sections 5 and 22–24; 2 section 46]

A useful valuation database separates parcel identity, interest, location, area, actual use, improvements, transaction type, date, consideration and source. A digital map pin is not a verified boundary. A title number is not a building-condition report. Data fields should answer defined questions and retain their source rather than pretending one document proves everything.

Transparency is expressly subject to privacy and information-security law. RA 10173 identifies transparency, legitimate purpose and proportionality among the general principles. Accurate, relevant information and appropriate security are part of responsible processing. RPVARA also addresses unauthorized information use.

A public-interest valuation objective does not establish unrestricted permission to publish every owner's personal identifiers. [1, 6]

Different audiences can require different views. A public valuation summary may show the methodology and appropriately aggregated market evidence. Authorized operational staff may need more detailed records. A private requester's access must follow the applicable BLGF guidelines and other legal restrictions. Do not confuse the law's no-cost government access provisions with an unrestricted public download entitlement.

For the original Harana teaching example, publication of an anonymized analytical table is proposed while the underlying identifiable deeds remain subject to authorized access and retention controls. Whether a real publication is sufficiently anonymized requires checking reidentification risk and the governing rules. Removing a name alone may be insufficient if the remaining details identify a person.

Automation should support validation, traceability and controlled updates. A system that repeatedly copies incorrect areas or overwrites a record without history can make errors more widespread. The professional question is not merely whether the system is online, but whether its information and outputs are accurate, supportable and lawfully processed.

15 Turning the architecture into an implementation review

A practical review begins with the mandate, responsible institution and required output. For each task, identify the statute and IRR locator, the person or office authorized to act, supporting evidence and present status. This makes the difference between a planning statement and completed implementation visible.

In Harana, the assessor prepares the technical valuation evidence and relevant proposal; the proper BLGF offices review and endorse under the governing route; the Secretary of Finance handles the compliance-certification role. The sanggunian deals with policy and budget decisions within its powers, while the treasurer handles tax administration and participates in impact analysis. The consultative committees support discussion and standards work rather than replacing all those decisions.

An original review matrix can assign "prepare," "review," "certify," "consider policy" and "collect" to separate entries. Those verbs are more informative than marking every participant "responsible." A single organization can have several functions, but a report should still identify which function produced the current decision.

Assess evidence quality alongside organizational readiness. Have parcel and transaction records been reconciled? Are staff qualified and trained? Are the applicable standards available? Are model assumptions supportable? Are compliance findings answered? Are policy options distinguished from values? Is the system's access controlled? These are suggested review questions derived from the framework, not a claim of a mandated national checklist.

A taxpayer's assessment appeal remains a separate procedure. Committee discussion of appeal trends can improve policy understanding but does not itself adjudicate the individual's petition or stop a filing clock. BLGF standards clarification likewise should not be treated as an automatic substitution for the remedy required by the disputed assessment or payment.

The review conclusion should state what has been verified and what remains outstanding. "Ready" needs a defined scope: ready for internal review, consultation, submission, certification consideration or operational application. An organization chart and a working model alone do not establish a lawfully effective new schedule.

16 Read the law and IRR with precise locators

The Act and IRR do not use matching section numbers for every topic. Statutory section 8 on local units corresponds to IRR section 9; statutory section 10 on regional operations corresponds to IRR section 8. Standards under statutory section 13 are developed across IRR sections 17–20. Valuation under statutory section 14 corresponds to IRR sections 21–22. A shared number is therefore not proof that the documents address the same function. [1, 2]

Use a locator with document, section, paragraph where applicable, edition or date, and the proposition checked. For the scanned BIR-circularized IRR, its printed page numbers differ from the PDF viewer position because of the circular and front matter. Section numbers are the primary teaching locators; the source notes also identify selected printed pages.

When a web transcription has an apparent duplication or a routing phrase differs from the IRR, preserve the discrepancy instead of silently correcting or generalizing it. Check the official published text, operative implementation and authoritative clarification for actual use. This chapter identifies the regional-membership and submission-wording issues rather than inventing a legal resolution.

The institutional rules describe statutory offices and bodies, not the names of today's officeholders. Unless an assignment needs current personnel, studying the function and authority is more stable and useful than memorizing a name that may change. Likewise, a publication announcement verifies the existence of a new standard edition without proving that every detailed clause has been read.

For examination reasoning, classify the proposed action first. Is it valuation, standards development, consultation, compliance review, certification, policy enactment, data processing, collection or appeal? Match it with the assigned institution and explain the controlling distinction. Only then consider a numerical or date-specific part of the problem.

Lesson 21 develops SMV preparation, review and application. Carry forward the supported-value principle, the institutional map and the law-to-IRR locators. A reliable process needs correct actors and evidence at each step; reform terminology alone does not establish a valid valuation or effective tax base.

Topic	Act locator	IRR locator
Purposes and definitions	3–4	3–4
BLGF functions	5	5
RPVS and supervision	6–7	6–7
Local RPVU	8	9
Central consultation	9	10–12
Regional operations	10	8
Regional consultation	11–12	13–16
Standards framework	13	17–20
Market value and depreciation	14	21–22
Certification and remand context	16	30–31
Impact report context	17	35–38
Information system context	22	46

Locator note: Match the topic and actual text rather than assuming matching section numbers. This table is an original study crosswalk. The SMV process and transition are developed in Lessons 21–22. [1, 2]

17 Ten worked reform cases

Attempt the question first. Identify the function, institution, controlling source and evidence. Policy calculations are uncapped teaching illustrations and do not determine actual local liability or relief.

Case 1 Value and raw tax impact

Question: A supported value changes from PHP 10m to PHP 15m. A supplied uncapped illustration uses AL 20% and combined basic-plus-SEF rate 3%. Compute both raw tax amounts and explain which input changed.

Solution: Original AV = PHP 2m and raw tax PHP 60,000. Revised AV = PHP 3m and raw tax PHP 90,000. Value and raw tax rise 50% with policy percentages held constant.

Reasoning: The example separates evidence-based valuation from policy. It does not establish actual first-year cap treatment, class eligibility or an enacted local rate change.

Case 2 A policy alternative without falsifying value

Question: Use supported MV PHP 15m, combined levy 3% and desired raw burden PHP 60,000. In a purely mathematical uncapped exercise, solve for AL. Does that result revise the supported value?

Solution: AL = 60,000 ÷ (15,000,000 × .03) = 13.3333%. It produces AV PHP 2m and raw tax PHP 60,000. Supported MV remains PHP 15m.

Reasoning: This is an illustrative policy scenario rather than an enacted percentage or instruction to disregard statutory limits and relief. The sanggunian's lawful policy role is separate from valuation.

Case 3 Place the unit correctly

Question: A city proposes a valuation unit under its assessor and calls it RPVS. Another proposal concerns counterpart personnel in a BLGF regional office. Identify each correctly.

Solution: The city-assessor unit is an RPVU. Counterpart personnel in the BLGF regional office belong to the RPVS architecture.

Reasoning: RPVS is the Real Property Valuation Service within BLGF; RPVU is the Real Property Valuation Unit under the specified local assessor. RPIS is an information system and PVS is standards.

Case 4 Mandatory and optional creation

Question: Compare a province, city, the lone municipality in Metropolitan Manila and a component municipality of a province under the checked IRR section 9.

Solution: The IRR requires RPVU creation under the assessor in every province and city and the lone Metropolitan Manila municipality within its specified period. Component municipalities of provinces may also create an RPVU.

Reasoning: The IRR's creation period is two years from IRR effectivity. The option for a component municipality does not remove its existing assessor's applicable duties. Actual creation and staffing require evidence.

Case 5 Certification is not content manipulation

Question: A proposed SMV fails an identified PVS requirement. A reviewer suggests that the Secretary of Finance simply replace the values with a revenue-target amount. What is the appropriate distinction?

Solution: The Secretary's role is standards-compliance certification through the framework, including remand with written noncompliance findings where required. The Secretary should not exercise control over SMV content to impose a preferred tax target.

Reasoning: Read statutory section 16 and IRR sections 30–31. Address the actual technical finding through the prescribed process. Silence is not automatic certification, and local policy choices remain separate.

Case 6 Consultation and appeal

Question: A taxpayer has an individual assessment dispute. The Regional Consultative Committee discusses local appeal trends. Does its discussion replace the taxpayer's LBAA remedy?

Solution: No. The committee is a consultative forum and can report patterns and concerns. It does not replace the competent assessment-appeal body or automatically stop the taxpayer's filing period.

Reasoning: Statutory sections 11–12 and IRR sections 13–15 concern consultation and reporting. A standards clarification, committee recommendation and adjudicated appeal are different outputs.

Case 7 Check units before the model

Question: Four supplied screened sales are PHP 4m/500 sq m, PHP 4.2m/600 sq m, PHP 3m/400 sq m and PHP 6m/750 sq m. Find the median unit price. A separate sale is PHP 2m for 0.25 hectare; convert its unit amount.

Solution: The four unit prices are PHP 8,000, 7,000, 7,500 and 8,000 per sq m. Median = PHP 7,750 per sq m. The separate 0.25 hectare is 2,500 sq m, so its price is PHP 800 per sq m.

Reasoning: The median is a diagnostic teaching summary, not an automatically certified SMV. Comparable interests, dates, terms, locations and attributes still require analysis. Do not mix hectares and square metres.

Case 8 Exemption and depreciation

Question: An inventory contains a stipulated exempt school property and a taxable building. A supplied building cost exercise has replacement cost PHP 12m and supported aggregate depreciation PHP 3m. Explain the exemption and calculate the improvement indication.

Solution: Exemption does not mean zero market value or exclusion from the valuation framework. Simplified improvement indication = 12m − 3m = PHP 9m.

Reasoning: Statutory section 14 and IRR sections 21–22 address taxable and exempt property and depreciable assets. The exercise does not prescribe a nationwide depreciation percentage or establish an actual school's exemption.

Case 9 Publish the method without assuming unrestricted access

Question: An analyst proposes posting underlying deeds with personal identifiers because the reform promotes transparency. What review is needed?

Solution: Check the authorized purpose, access rules, data fields, aggregation, privacy and security before disclosure. Publish appropriately supported methodology and evidence within the applicable legal framework.

Reasoning: RPVARA transparency is subject to RA 10173. Government operational access and private/public access are not identical. Removing names alone may not prevent reidentification.

Case 10 Read the law and IRR separately

Question: A reviewer uses Act section 8 as though it were IRR section 8, then assumes the statutory web member list and IRR regional list are identical. What should be corrected?

Solution: Act section 8 concerns the local RPVU and corresponds to IRR section 9; IRR section 8 concerns regional operations corresponding to Act section 10. The regional membership must be checked against the respective texts; IRR 13.2 lists leagues of cities and provinces.

Reasoning: Matching section numbers do not prove matching subjects. Preserve source wording differences and obtain authoritative clarification for actual application; do not silently invent a correction or legal resolution.

18 Institutional and standards worksheet

Suggested time: 45 minutes. Use the response lines for key points and a separate sheet for complete workings. Keep technical valuation, policy and actual implementation evidence separate.

1 Separate the policy input

A supplied uncapped illustration uses MV PHP 8m, AL 25% and combined levy 2%. MV rises to PHP 12m with other inputs unchanged. Compute raw AV and tax for both. Explain how a mathematical AL alternative could preserve the original raw tax.

_____

_____

_____

2 Locate the institutions

For RPVS, RPVU, RPIS and PVS, state whether it is a service, unit, system or standards and identify its institutional location or function.

_____

_____

_____

3 Assign the function

Allocate preparation of valuation evidence, technical standards oversight, SMV compliance certification, lawful local policy consideration and tax collection to their appropriate institutional roles.

_____

_____

_____

4 Compare the committees

State the central and regional chairs, minimum meeting frequency and checked IRR notice period. Explain why committee discussion does not replace an assessment appeal.

_____

_____

_____

Institutional worksheet continued

5 Verify market evidence

Supplied screened sales are PHP 3m/500 sq m, PHP 4.2m/600 sq m and PHP 4m/500 sq m. Compute unit prices and median. Explain why the median is not automatically the schedule unit value.

_____

_____

_____

6 Value a supplied improvement

An original exercise supplies replacement cost PHP 10m, supported aggregate depreciation PHP 2.5m and separate land indication PHP 4m. Additivity and no other adjustment are stipulated. Compute improvement and total indications; identify a possible double-counting risk.

_____

_____

_____

7 Write a source locator

Prepare law and IRR locators for BLGF functions, RPVS, RPVU, regional operations, standards and taxable/exempt valuation. Distinguish section identification from proof of current local implementation.

_____

_____

_____

8 Review a data release

A city wants a public methodology table and a detailed operational deed database. Outline the different source, validation, privacy, access and version records needed without treating every record as publicly downloadable.

_____

_____

_____

19 Review and examination checks

Distinction	Check before answering
Value and tax policy	What evidence supports value and who selects lawful policy?
Common basis and common price	Consistent principles allow relevant market differences
RPVS and RPVU	National service differs from local assessor unit
RPIS and PVS	Information system differs from valuation standards
Mandate and implementation	Law requires an action but status needs evidence
Prepare review and certify	Identify the particular function and authority
Consultation and adjudication	Committee discussion does not replace an appeal
Certification and content control	Compliance findings differ from a revenue target
PVS and IVS	National framework and international source are linked
Published and fully checked	An edition announcement is not a clause audit
Exempt and valueless	Exemption does not erase market value
Depreciation and duplicate deduction	Do not count the same loss twice
Diagnostic and valuation conclusion	A median alone does not establish an SMV
Transparency and access	Lawful disclosure and privacy remain relevant
Act and IRR numbers	Use a topic-based crosswalk

Use a reproducible answer sequence

Identify the proposed action. Match it with the competent institution. State the Act and IRR provisions and the relevant evidence. Explain the boundary of the function and distinguish what has been completed from what is still proposed.

For numerical items, name the value, assessment level, levy, unit or depreciation input. Explain the result's meaning and the assumptions left unresolved. Correct reasoning should survive a changed date, locality or taxpayer scenario.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC items. Numerical examples are supplied learning assumptions, and institutional questions identify their statute or IRR context.

1. Which objective most directly explains separating valuation from tax policy?

A. An assessor may select any rate without an ordinance

B. Every property must have the same price

C. All local tax policy disappears

D. Supported values should not be manipulated to meet a preferred tax burden

2. A common market-value base means which of the following?

A. One national price per square metre for all land

B. Consistent standards applied to relevant property and market evidence

C. Every observed price is correct market value

D. Every property tax has the same rate

3. Who is the statutory lead implementation agency for RA 12001?

A. BLGF within DOF

B. The local treasurer of every barangay

C. The private appraiser’s association alone

D. The LBAA acting as a data vendor

4. Where is RPVS established?

A. Under every local sanggunian as its collection unit

B. Inside each private brokerage

C. Within BLGF with counterpart personnel in its regional offices

D. Within the Register of Deeds

5. Where is the local RPVU placed under the reform framework?

A. Under the specified local assessor’s office

B. Under the buyer’s bank

C. Inside the private sector committee

D. Under the taxpayer as a self-certification office

6. Which checked IRR statement about a component municipality of a province is correct?

A. It has no property-assessment duties without a unit

B. It must call its local unit RPVS

C. It may create an RPVU while applicable assessor duties remain

D. It alone certifies national PVS

7. Who has the statutory SMV standards-compliance certification role?

A. A majority of private brokers

B. The Secretary of Finance

C. The buyer’s auditor

D. The taxpayer’s survey contractor

8. What is the appropriate response to an identified PVS noncompliance in a proposed SMV?

A. Automatically certify because revenue will rise

B. Replace all values with a political target

C. Treat an old signature as sufficient evidence

D. Use the applicable written remand and compliance process

9. The Secretary does not act within the stated certification period. Which basic proposition is correct?

A. All property taxes cease forever

B. The proposal is automatically certified

C. The existing SMV remains in effect under the stated rule

D. The private appraiser can certify instead

10. Who chairs the Central Consultative Committee?

A. The head of BLGF

B. The local treasurer of the highest-value city

C. Every private sector representative in rotation automatically

D. The chief buyer in the market

11. What is the central committee's minimum statutory meeting frequency?

A. Once every three years

B. Once every month in all cases

C. Only when an individual appeal is filed

D. At least once every semester

12. Who chairs the Regional Consultative Committee and what is its minimum meeting frequency?

A. The mayor at least once every semester

B. BLGF regional director at least once every quarter

C. Private brokers only once every three years

D. PRC chair once every year

13. A regional committee discusses assessment-appeal trends. Which statement is sound?

A. Its minutes automatically cancel every disputed tax

B. Its consultation does not replace the competent individual appeal procedure

C. It becomes the CBAA for that meeting

D. It suspends every taxpayer's filing period

14. Which relationship correctly describes PVS?

A. PVS is a local bank's loan percentage

B. PVS applies only to taxable land without buildings

C. PVS is the property-information database

D. PVS is the national framework based on IVS and duly approved by the Secretary of Finance

15. Under the checked standards-review framework, BLGF through RPVS reviews PVS when?

A. Every three years or as often as necessary

B. Never after first publication

C. Only after every private sale

D. Only when all taxes become zero

16. An exempt educational property is in the valuation inventory. What does section 14 require?

A. Store market value as zero because annual tax is zero

B. Delete it from every property system

C. Value it under the market-value and PVS framework despite its exemption

D. Value it only if sold immediately

17. Replacement cost is stipulated PHP 12m and supported aggregate depreciation PHP 3m. What is the simplified improvement indication?

A. PHP 15m

B. PHP 9m

C. PHP 3m

D. PHP 12m without considering depreciation

18. Four supplied screened unit prices are PHP 8,000, 7,000, 7,500 and 8,000 per sq m. What is the median diagnostic summary?

A. PHP 8,000

B. PHP 7,625

C. PHP 7,750

D. PHP 7,000

19. Which data-release claim is consistent with the reform?

A. Transparency always overrides privacy

B. Every private requester receives every deed without conditions

C. Deleting a name guarantees anonymity in every record

D. Transparency must be read with lawful purpose privacy security and applicable access rules

20. Which law-to-IRR locator pairing is correct?

A. Act 8 on RPVU corresponds to IRR 9 while Act 10 regional operations corresponds to IRR 8

B. Act 13 and IRR 13 both develop PVS in the same numbered section

C. Act 14 and IRR 14 both concern only depreciation

D. Act 8 and IRR 8 both concern only the local RPVU

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	D	11	D
2	B	12	B
3	A	13	B
4	C	14	D
5	A	15	A
6	C	16	C
7	B	17	B
8	D	18	C
9	C	19	D
10	A	20	A

1. D RPVARA separates the technical value inquiry from the policy and administration of tax. A lawful policy alternative should not require falsifying the value evidence.

2. B Consistency concerns the valuation framework and supportable application. Location, rights and other market attributes can justify different amounts.

3. A Section 5 identifies BLGF of DOF as the primary lead agency. Its standards and technical functions differ from local collection and appeal roles.

4. C RPVS is the national Real Property Valuation Service within BLGF. It must not be confused with the local RPVU.

5. A The local unit is under the relevant assessor. Applicable organization, budget, staffing and civil-service requirements still need evidence.

6. C IRR section 9 permits component municipalities to create the local unit. The organizational option does not eliminate existing statutory responsibilities.

7. B The Secretary of Finance certifies compliance with the latest PVS through the statutory process. Preparation and policy enactment are separate functions.

8. D Act section 16 and IRR sections 30–31 distinguish certification from content control. Technical findings must be addressed with the proper explanation and process.

9. C Silence does not produce automatic new-SMV certification under the stated framework. The existing schedule remains in effect, and later status and effectivity need evidence.

10. A The central committee is chaired by the head of BLGF. It serves a consultation role on standards and related valuation matters.

Answer explanations continued

11. D The statute and checked IRR provide at least once every semester. Further meetings can be called as required; the minimum is not a maximum.

12. B The regional director chairs the regional committee. Its at-least-quarterly frequency differs from the central committee's semester minimum.

13. B The committee is a forum for discussion and reports. It does not replace LBAA/CBAA adjudication or automatically stop a procedural clock.

14. D The statute connects national PVS with IVS and Finance approval. Standards, information systems and lending policy have different roles.

15. A Act section 13 and IRR section 19 establish that periodic or necessary review, considering accepted principles and economic conditions. It is not permission for individual valuers to invent replacement standards.

16. C The valuation rule covers taxable and exempt properties. Exemption and market value must be kept separate; an actual exemption also requires its own legal and factual basis.

17. B Subtract the supplied supported depreciation: PHP 9m. This is a learning computation, not a prescribed universal depreciation percentage or full property valuation.

18. C Sort the values and average the two middle observations: (7,500 + 8,000)/2 = PHP 7,750. This statistic alone does not establish an SMV or PVS compliance.

19. D RPVARA expressly incorporates privacy considerations. Government operational access and public or private access differ; disclosure needs the applicable rules and facts.

20. A The Act and IRR use different section organization. Match the topic and checked provision rather than assuming identical numbers address identical subjects.

Worksheet model responses

Response 1

Original AV = 8m × 25% = PHP 2m; raw tax = PHP 40,000. Revised AV = 12m × 25% = PHP 3m; raw tax = PHP 60,000. Mathematical burden-preserving AL = 40,000 ÷ (12m × 2%) = 16.6667%. This leaves the supported revised MV at PHP 12m. The illustration ignores actual caps and does not prove that a percentage is legally available or enacted.

Response 2

RPVS is the Real Property Valuation Service within BLGF, with counterpart personnel in BLGF regional offices. RPVU is the Real Property Valuation Unit under the specified local assessor. RPIS is the Real Property Information System supporting property data. PVS is the Philippine Valuation Standards framework, based on IVS and duly approved by the Secretary of Finance. None of these labels is interchangeable.

Response 3

The local assessor prepares the relevant property and valuation evidence. BLGF through the statutory architecture develops and oversees the standards and SMV technical compliance. The Secretary of Finance has the SMV certification role. The sanggunian considers and enacts policy within its lawful powers. The treasurer administers collection and works with the assessor on the impact report. Each completed action needs its own evidence and authority.

Response 4

Central chair: head of BLGF; at least once every semester. Regional chair: BLGF regional director; at least once every quarter. Checked IRR sections 11 and 14 require at least fifteen days' meeting notice. Consultation supports standards and stakeholder discussion, not adjudication of an individual LBAA/CBAA petition. A committee meeting does not automatically suspend any filing period.

Response 5

Unit prices are PHP 6,000, PHP 7,000 and PHP 8,000 per sq m; median is PHP 7,000 per sq m. This is a diagnostic summary of supplied observations. Market comparability, rights, dates, transaction terms, segmentation and appropriate adjustments or models remain necessary. A simple median is not identified here as a mandated PVS method or effective certified SMV.

Response 6

Improvement indication = 10m − 2.5m = PHP 7.5m. With supplied land indication PHP 4m and established additivity, total = PHP 11.5m. Do not subtract the same functional or physical loss again if it is already included in aggregate depreciation. The numbers are supplied assumptions, not statutory depreciation rates or an actual property opinion.

Response 7

BLGF functions: Act 5 and IRR 5. RPVS: Act 6–7 and IRR 6–7. RPVU: Act 8 and IRR 9. Regional operations: Act 10 and IRR 8. Standards: Act 13 and IRR 17–20. Taxable/exempt valuation and depreciation: Act 14 and IRR 21–22. Record the document edition/date and proposition checked. The locators do not prove local unit creation, staffing, schedule certification or effective rollout.

Response 8

For methodology, retain sources, data selection, appropriate aggregation, calculation units, assumptions and model history. For the operational database, establish lawful processing purpose, authorized users, field validation, source provenance, security and retention arrangements. Public release needs its own disclosure and reidentification review. RPVARA and RA 10173 must be read together; government no-cost access is not unrestricted public access.

22 Essential terms and reasoning review

RPVARA Real Property Valuation and Assessment Reform Act under RA 12001.

BLGF Bureau of Local Government Finance within DOF and the statutory lead agency.

RPVS Real Property Valuation Service within BLGF with regional counterparts.

RPVU Real Property Valuation Unit under the specified local assessor.

RPIS Real Property Information System supporting the property-data framework.

PVS Philippine Valuation Standards based on IVS and national approval.

SMV Schedule of Market Values prepared and used within the operative framework.

Certification The specified standards-compliance action on a proposed SMV.

Remand Return through the proper process with identified noncompliance to address.

Consultative forum A body for discussion and reports rather than automatic appeal adjudication.

Tax impact report Evidence of policy effects and options for the appropriate local consideration.

Depreciation Relevant allowance for wear exhaustion and obsolescence of depreciable assets.

Provenance A record of where evidence came from and how it was processed.

Implementation status The supported state of completed and outstanding actions.

Teaching relationship	Reasoning or calculation
Raw tax illustration	Supported MV × supplied AL × applicable levy
Mathematical AL alternative	Target raw tax / (supported MV × supplied levy)
Comparable unit price	Verified amount / area in consistent units
Median of four sorted values	Average of the two middle observations
Improvement cost illustration	Supported replacement cost minus supported depreciation
Institutional answer	Action plus competent actor plus source and evidence
Source locator	Document plus section and proposition plus date or edition

A calculation is not an enacted policy, certified SMV or verified rollout. A statutory institutional design is not proof that each position or system is operational. Use the full applicable national standards for a detailed compliance determination.

23 Sources and 2027 preparation status

Bracketed references identify primary legislation, the official BIR-circularized IRR and official publication material. Research was reviewed on 12 October 2026. All explanations, maps, tables and assessments are original. Harana and its numerical data are fictional learning examples.

Selected RA 12001 provisions were directly readable. A complete official 29-page BIR-circularized IRR copy was obtained, and the institutional, committee, standards, valuation and selected certification provisions used here were visually checked. This strengthens the IRR access status relative to the earlier curriculum specification. It is not a comprehensive audit of all later operational issuances.

The Act and IRR use different section organization. The IRR includes specific detail on the lone NCR municipality, central and regional committee arrangements and regional membership. The statutory web text and IRR also show differences in the city-submission wording. Those differences are identified rather than silently resolved; actual routing requires reconciliation with authoritative current instructions.

Official DOF material and BLGF indexed publication text establish the PVS third-edition publication context and IVS connection. The full national PVS PDF returned an access error. No exact detailed PVS clause audit or complete domestic approval-effectivity concordance is claimed. The IVSC announcement is used for the international edition and architecture only.

No actual LGU's staffing approvals, unit creation, committee appointments, effective SMV, ordinance, data-release policy or implementation status was examined. The uncapped policy examples deliberately do not compute statutory transition relief; Lesson 22 develops that subject. No confirmed 2027 PRC program, dates, detailed weights or official endorsement is asserted. Recheck later official issuances before examination and professional application.

1 RA 12001 RPVARA

13 June 2024. Core sections 3–14 on purposes, definitions, institutions and valuation standards. Selected sections 15–17 and 22–27 provide context for routing, certification, policy impact and information. Read with the operative implementing rules and later issuances.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

2 Official BIR circularized RPVARA IRR

IRR signed 10 December 2024, attached to RMC 30-2025 in the official BIR PDF. Selected sections 3–22 and 28–31, 35–38 and 46. The core institutional and standards provisions are on printed pages 5–17; PDF viewer page numbers differ. Selected pages were visually checked against the scanned copy.

https://bir-cdn.bir.gov.ph/BIR/pdf/RMC%20No.%2030-2025v2.pdf

3 DOF valuation publication launch

Official DOF publication dated 6 November 2025 reporting the 5 November launch context for PVS third edition, the Local Assessment Manual and Mass Appraisal Guidebook second edition. Publication evidence does not itself verify every detailed standards clause.

https://www.dof.gov.ph/blgfs-lgu-finance-performance-awarding-electronic-or-valuation-launch/

4 BLGF PVS third edition publication

Official indexed text identifies the 2025 first printing and national publication incorporating IVS 2025. Direct full-PDF access was blocked. Use the full national text and approval evidence for precise mandatory-clause and application checks.

https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

5 IVSC current edition announcement

Official IVSC announcement of IVS effective 31 January 2025, with its updated architecture including data, inputs, models and reporting. Used for the limited international edition and architecture discussion rather than a full standards reproduction.

https://ivsc.org/new-edition-of-the-international-valuation-standards-ivs-published/

6 RA 10173 Data Privacy Act

15 August 2012. Selected sections 11–13 and 20–21 provide the processing-principles and security context. Actual disclosure and access require relevant facts, authority and current implementing guidance.

https://lawphil.net/statutes/repacts/ra2012/ra_10173_2012.html

7 RA 7160 Local Government Code context

10 October 1991. Assessment, local policy, treasury and assessment-appeal provisions provide the surrounding framework, read with RA 12001 and other later law. The committees and technical clarification roles do not automatically replace individual statutory remedies.

https://lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

REALEX

Lesson 21

RPVARA Schedule of Market Values Preparation Review and Application

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

An SMV proposal can be complete, consulted and endorsed while still awaiting certification. A certified schedule can still await the publication requirements and elapsed period for effectivity. Identify the stage and its evidence before deciding which values can be applied to a property or transaction.

This lesson develops the preparation, consultation, review, certification and effectivity sequence under RA 12001. It then connects an operative schedule with valuation application, a revenue and tax impact report and three original policy scenarios. It follows Lesson 20's separation of technical valuation from tax policy.

The Harana examples, tables, cases, worksheet and questions are original fictional teaching material. Calculated tax amounts are raw uncapped illustrations unless otherwise stated; they do not determine actual payable taxes or lawful adoption of hypothetical policy inputs. The statutory and IRR locators keep separate clocks and source wording visible.

Your learning goals

- Explain the SMV definition and machinery distinction.
- Sequence notice preparation publication and consultation.
- Associate each review period with its actor and receipt event.
- Distinguish regional and direct central routes in the checked IRR.
- Explain certification remand and the consequence of silence.
- Evaluate publication and evidence of effectivity.
- Apply a supplied schedule without confusing value and tax.
- Prepare the structure of a revenue and tax impact report.
- Compare three policy options and their distributional effects.
- Distinguish raw levy payable liability and cash collection.
- Explain updating revision and emergency suspension.
- Distinguish a policy proposal from an operative legal change.

Study plan: Allow four to five hours over two sessions. Read sections 1–10 for procedure and sections 11–16 for application and impact analysis. Attempt the ten cases, two-page worksheet and twenty-question test before using the answers.

1 What an SMV establishes

A schedule of market values, or SMV, is a table of base unit market values for the different kinds of real property within the relevant jurisdiction, with machinery excluded from the statutory SMV definition. Its purpose is to organize a market-value basis that can be applied consistently to identified property classes and locations. It is not a table of annual tax bills, a national list of identical prices, or a substitute for identifying the subject property. RA 12001 section 4(p) also addresses property not specified in the schedule: appraise it at current market value and apply the prescribed assessment level based on actual use for taxation. [1]

Suppose a fictional land schedule lists a supported base unit value of PHP 8,000 per square metre for a defined residential category. A 400-square-metre parcel has an unadjusted land indication of PHP 3.2 million under that supplied category. Before treating this as the property's applicable value, establish the correct jurisdiction, schedule version, location, classification, area and relevant adjustment rules. A building on the site is not automatically included in a land-only amount. Machinery requires its own applicable valuation treatment; exclusion from the schedule definition does not mean exemption from valuation or taxation.

The SMV is part of a legal and technical process. The technical work seeks supportable values in conformity with the PVS. Preparation, consultation, review, certification and effectivity establish different stages of that process. Local tax policy then uses the valuation basis with lawful assessment levels and tax rates. Those inputs must retain their separate identities. A schedule can be technically complete while still being only a proposal, and a certified schedule can await the required publication and elapsed period before effectivity. [1, 2]

For each exam scenario, ask two initial questions. What stage has the schedule reached, and what calculation or decision is being requested? A question about consultation notice concerns preparation procedure. A question about a signed certification concerns national standards compliance. A question about a bill additionally requires the applicable assessment and tax rules. Matching the question with the correct stage prevents an accurate number from supporting an incorrect conclusion.

2 The sequence and its separate clocks

RA 12001 sections 15–16 place preparation and public consultation before BLGF review and endorsement, followed by the Secretary of Finance's certification process and the publication conditions for effectivity. The official IRR expands those topics across sections 23–34. A number such as thirty days appears more than once, but the triggering receipt and the responsible actor differ. Learn each period with its event, actor and output. [1, 2]

The original process map below connects the stages without suggesting that every file must follow the same geographic route. Provincial proposals ordinarily pass through regional review; the IRR expressly provides direct central submission for NCR cities and the lone NCR municipality. A remand creates a revision branch. Publication of the proposal for consultation and publication of the certified schedule for effectivity are separate events. A tax impact report has its own receipt-based deadline after the new schedule is transmitted.

Stage	Trigger or output	Act and IRR locators
Notice and prepare	12 months from notice receipt under IRR	Act 15 IRR 23–25
Publish proposal	At least 2 weeks before consultation	Act 15 IRR 26
Consult	At least 2 within 60 days before submission	Act 15 IRR 27

Stage	Trigger or output	Act and IRR locators
Regional review where applicable	45 days from regional receipt	Act 15 IRR 28–29
Head of BLGF endorse	30 days from relevant receipt	Act 15 IRR 29
Secretary certify or remand	30 days from endorsed receipt	Act 16 IRR 30–31
Correct and resubmit if remanded	30 days from remand receipt under IRR	Act 16 IRR 32
Decide resubmission	10 days from Secretary receipt under IRR	Act 16 IRR 33
Publish certified schedule	Required DOF local website and postings	Act 16 IRR 34
Effectivity	15 days after specified publication	Act 16 IRR 34
Impact report	3 options within 30 days of new SMV receipt	Act 17 IRR 35–38

Do not add the review periods and call the total a guaranteed commencement date. Regional review is within forty-five days from regional receipt. Head-of-BLGF review and endorsement is within thirty days from that receipt. Initial Secretary-of-Finance certification is within thirty days from receipt of the endorsed proposal. Transfers, a remand, correction work and the publication sequence affect the file. Moreover, a direct central route does not acquire a regional stage merely because forty-five days appears in a memorized formula. [1, 2]

An original file register should separately record notice receipt, proposed-version publication, both consultation dates, submission receipt, regional endorsement where applicable, head-of-BLGF receipt and endorsement, Secretary receipt, remand and resubmission if any, certification, publication and posting, and effectivity evidence. Retain the underlying document for each entry. A spreadsheet populated from an unverified email summary is a useful prompt for investigation, not proof that all legal acts occurred.

3 Notice and preparation responsibility

The statutory preparation responsibility rests with provincial assessors together with municipal assessors, city assessors, the lone municipal assessor in Metropolitan Manila and the PHIVIDEC Industrial Authority assessor within the stated jurisdictional framework. This does not make every component municipality a separate certifying authority. Coordination must produce the schedule applicable to the relevant jurisdiction while retaining the local evidence contributed by the municipal assessors. [1, section 15]

IRR section 23 provides for BLGF notification to assessors to prepare and submit proposed SMVs. Section 25 expresses the preparation period as twelve months following receipt of that notice and includes the proposed publication and public consultations in that preparation period. Establish a dated receipt record. A project team’s internal kickoff meeting is not necessarily the legal notice event, and the date written on a letter is not necessarily the date the assessor received it. [2]

Prepare a work programme covering property inventory, market evidence, classification, model development, quality review, proposed publication, stakeholder consultation and submission. Assign responsibility for the activities and records. Funding, software and staff support the programme, but they do not certify the proposed values. Likewise, a consultant’s completion certificate does not replace the assessor’s statutory role or the national review sequence.

Distinguish the notice-based preparation period from the initial two-year updating requirement in Act section 19 and the later three-year cycle. They arise from different triggers. IRR section 41 identifies the original initial-update endpoint as 5 July 2026. That stated endpoint does not prove that every local schedule was completed, certified or effective on that day. Actual implementation and any subsequent lawful change require current documents; section 16 below explains how to examine those documents. [1, 2]

4 Build a supportable proposal

Preparation is a valuation assignment, not just a transcription of older rates. Begin with the property universe and the market segments the table is intended to represent. Define location boundaries, kinds of property, measurement units, valuation date and the evidence supporting the proposed categories. Explain how the table will connect with parcel and improvement records. Without that connection, a defensible unit value can still be applied to the wrong property.

A verified transaction record should distinguish achieved consideration from an asking price and identify area, rights, dates, included assets and unusual terms. A price for land with improvements should not silently enter a vacant-land sample. Duplicate deeds, related-party arrangements, distressed circumstances and inconsistent area units require review. Their treatment must follow relevant evidence and the applicable standards; simply deleting every inconvenient observation would create another distortion.

Consider a fictional database containing prices for five apparently comparable parcels. One row is the same deed entered twice, one area is expressed in hectares, and one sale includes a warehouse. Counting all rows as equal vacant-land observations creates a misleading sample before any model is selected. Reconcile identity and units first, then analyze market relevance and adjustments. Maintain an audit trail explaining retained records, exclusions, corrected inputs and unresolved limitations.

PVS conformity governs the technical work under Act sections 13–15 and IRR sections 24 and 17–22. A median or a simple average may summarize supplied observations but does not, by itself, establish an approved SMV methodology. The chapter’s numerical examples illustrate process and impact reasoning. A detailed operational model must be checked against the applicable national standards, manuals, specifications and later instructions. [1, 2]

The resulting proposal should be understandable to a reviewer and to participants in consultation. Preserve its version, valuation assumptions, evidence period, property categories, units and explanation of material changes. This is an original study checklist rather than a claim that the Act prescribes exactly these document headings. The legal requirement is standards-compliant preparation; a reproducible file makes that requirement easier to assess.

5 Publish the proposal before consultation

The proposed schedule must be published for at least two weeks before the public consultation and hearing on the relevant official website, together with posting in two conspicuous places in the specified local public premises. The IRR expressly includes the PHIVIDEC-IA website and principal office where applicable. Website publication and physical posting are both part of the stated preparation requirements. A social-media announcement can help inform residents but does not, on its own, establish compliance with those channels. [1, section 15; 2, section 26]

Identify the published document, not just an announcement that a meeting will occur. A notice saying that proposed values are available on request differs from an accessible publication of the proposal. Keep the published schedule, URL, dates, posting records and information identifying its version. If the consulted file differs materially from the posted file, examine how participants could assess the changes and what corrective steps the applicable process requires.

The original consultation calendar uses a proposed submission date of 30 November 2026. Publication and posting begin on 1 October, with consultation sessions on 20 October and 10 November. Under a simple elapsed-calendar-day teaching convention, the first session is nineteen days after publication and both sessions fall within sixty days before submission. This shows how to check the two timing relationships separately. It does not establish that a real file met every procedural requirement.

Original event	Date in 2026	Elapsed-day check
Proposal publication and postings	1 October	Starting event stipulated complete
First consultation	20 October	19 days after publication
Second consultation	10 November	20 days before submission
Submission	30 November	First session 41 days before submission

For a live filing deadline, confirm the governing counting rule, receipt date, holidays, extensions and any authoritative instruction. Do not replace two weeks with fifteen days simply because the certified schedule has a fifteen-day effectivity period. Nor should the sixty-day consultation window be treated as permission to submit whenever convenient: delayed submission can move the actual consultations outside the relevant window. Keep the programme tied to the final submission date. [1, 2]

6 Conduct and document the consultations

Act section 15 requires two mandatory public consultations within sixty days before submission. IRR section 27 states at least two and allows in-person, online or hybrid conduct. It also addresses possible BLGF assistance and retention of consultation, completion and submission records. The mode of attendance changes the practical arrangements, not the underlying need for genuine access to the proposal and a record of the proceedings. [1, 2]

A useful original consultation log records date, mode, published version, participants, issues raised, supporting evidence, assessor response and resulting changes. Separate a correction of factual data from a policy request. A participant might supply a survey that corrects parcel area, evidence that a transaction included a building, or a request that taxes remain affordable. The first two can change the valuation evidence. The third belongs in the policy and impact discussion and does not justify fabricating a lower market value.

Consultation is not a plebiscite on each supported unit value. Stakeholder concerns deserve consideration and an explained response, but a show of hands does not replace valuation analysis. Conversely, invoking technical expertise does not excuse ignoring a documented error. A sound response describes the issue, reviews its evidentiary relevance, records the action and explains the conclusion in terms that participants can follow.

Do not confuse these proposal consultations with the Central or Regional Consultative Committee meetings covered in Lesson 20. Committee membership and minimum meeting frequencies concern institutional forums. The SMV proposal’s consultation requirement concerns the particular proposed schedule. Attendance at a regional committee meeting does not automatically prove that an LGU conducted both required proposal consultations.

Keep taxpayer remedies separate too. A person may raise a general market concern in consultation, while a later individual assessment dispute follows its applicable procedure. Submission of a comment at consultation does not automatically suspend an individual appeal period, establish an exemption, or produce an adjudicated assessment correction. The stage and requested relief remain essential facts. [1, sections 11–12 and 15; 3]

7 Submit through the applicable review route

After consultation and completion, submit the proposal through the applicable BLGF route. IRR sections 28–29 distinguish proposals from provinces and cities outside Metropolitan Manila, submitted to the regional office, from NCR cities and the lone NCR municipality, submitted directly to the central office. The regional office reviews and endorses within forty-five days of receipt where that stage applies. The head of BLGF through RPVS reviews and endorses to the Secretary of Finance within thirty days of receipt. [2]

There is a source-wording issue to recognize. The statutory web text of section 15 uses a broader reference to cities in its central-submission proviso, while IRR sections 28–29 expressly distinguish cities outside Metro Manila from NCR cities. State which text supports your answer. For actual routing, reconcile the official Act, the IRR and authoritative BLGF instructions; do not silently rewrite one source or invent a legal resolution. The provincial and NCR examples in this chapter avoid resolving that discrepancy by assumption. [1, 2]

A submission receipt should identify the responsible recipient, date and proposed version. An acknowledgment that a file was uploaded is not necessarily evidence that it reached the Secretary of Finance. The regional forty-five-day clock and the Secretary's thirty-day clock have different triggering receipts. If a question supplies only the regional receipt date, you cannot infer the Secretary's receipt date merely by adding standard periods.

Review tests conformity with the applicable valuation framework and supporting evidence. A reviewer may seek clarification of units, classification, model support or treatment of depreciable assets. A proposed schedule's attractiveness to a revenue target does not establish PVS compliance. Technical review should remain connected to the actual standards and explained findings rather than to a preferred amount of collections.

The assessor's cover note and BLGF endorsements should refer to the same controlled proposal. Track revisions between submission and endorsement. An endorsement of version 2 does not certify an unrelated version 4 that appears later on a website. Version identity is a practical evidence check, even where the scenario contains all of the expected institutional names.

8 Certification and absence of action

The Secretary of Finance certifies whether the endorsed proposed SMV conforms to the latest PVS within thirty days from receipt from the head of BLGF. This is the certification role established by Act section 16 and IRR section 30. It follows the BLGF review and endorsement stage. The signature of a local official on a consultant's report is not this statutory certification. [1, 2]

If the Secretary takes no action within the stated initial period, the existing SMV remains in effect under the stated rule. There is no deemed approval of the proposed schedule. An exam choice that converts silence into automatic certification reverses the provision. A failure to act may require follow-up or accountability analysis, but it does not create the missing certification for the proposed version. [1, section 16; 2, section 30]

Suppose a fictional file establishes that thirty-one days have elapsed from Secretary receipt and no certification or remand has been issued. The status supported by those facts is a pending proposal with the existing schedule continuing under the rule. It is incorrect to label the proposal effective because the review office exceeded its deadline. The same distinction applies when a taxpayer relies on a press announcement anticipating approval rather than the operative certification and publication records.

Certification and effectivity answer different questions. Certification establishes the standards-compliance action on the identified proposal. Effectivity additionally depends on the legally specified publication and posting sequence and elapsed period. A signed certificate can be important evidence while still being insufficient to determine which schedule governs a transaction on a particular day.

9 Remand correction and resubmission

If the endorsed proposal does not conform to the latest PVS, the Secretary remands it with a written explanation specifying the standards not complied with. The assessor revises the proposal accordingly. The Secretary is expressly prohibited from exercising control over SMV content. This preserves a distinction between identifying standards noncompliance and substituting values to achieve a preferred political or revenue outcome. [1, section 16; 2, section 31]

An original correction matrix connects each finding to the relevant standard, affected category or model, corrective work, evidence, revised version and remaining issue. Suppose the written finding identifies an unsupported unit conversion and inadequate treatment of depreciation. A responsive revision corrects those matters and documents the effect. Reducing every value by ten percent would not, by itself, answer either finding.

Act section 16 provides for resubmission within thirty days from receipt of the letter of disapproval and states that the assessor may conduct at least one public consultation before submission. IRR section 32 describes resubmission within thirty days from receipt of the remanded schedule and after at least one consultation as may be necessary. Preserve that qualified wording. Do not teach that every remand unconditionally requires two fresh consultations, or that consultation is categorically prohibited or irrelevant on resubmission. [1, 2]

The IRR routes resubmission to central BLGF through the regional office where applicable. Section 33 then gives the Secretary ten days from receipt of the resubmitted SMV to decide; otherwise the existing SMV remains in effect. The statutory wording links the ten-day period to resubmission. For a real file, document the relevant receipts and follow authoritative counting and routing instructions rather than treating an internal dispatch date as necessarily decisive. [1, 2]

The original remand branch is therefore findings, corrected evidence and proposal, consultation as applicable under the checked provisions, timely resubmission, and the Secretary’s decision. After certification, the publication and effectivity requirements still matter. Neither a revision letter nor a successful technical meeting substitutes for the remaining legal steps.

10 Publication effectivity and status evidence

Act section 16 and IRR section 34 provide that the approved or certified schedule takes effect fifteen days after the specified publication. The required channels include DOF publication in the Official Gazette or its official website, publication on the relevant LGU website, and posting in two other conspicuous public places in the specified premises. The word or applies to the DOF alternatives; it does not eliminate the separate local website and posting requirements. The IRR includes the PHIVIDEC-IA channels where relevant. [1, 2]

For the original effectivity example, assume certification on 2 December and verified completion of every required publication and posting act on 5 December. The exercise expressly excludes the event day and counts the next fifteen calendar days, with no other rule or interruption supplied. The resulting teaching date is 20 December. A review on 10 December would establish certification and completed publication but not yet the exercise’s elapsed effectivity period. A review on 21 December would pass those supplied checks, subject to the stipulated absence of superseding or suspending measures.

Do not use this simplified counting example to decide a live disputed date. The approved instrument, governing counting rules and authoritative implementation evidence must determine the actual result. If website publication and physical postings occurred on different dates, record all dates and obtain the controlling effectivity determination. This chapter does not invent a rule that chooses the earliest publication, the latest posting, or the certificate date for every staggered case.

The original status checklist distinguishes proposed, consulted, submitted, endorsed, remanded, certified, published and effective. An operative conclusion requires the correct schedule for the jurisdiction and date, a matching certified version, required publication and posting evidence, the elapsed period, and review of any relevant later legal action. A missing record supports the conclusion that effectivity has not been established from the file, which is different from proving that the act never occurred.

Evidence supplied	Strongest status shown	Still check
Consultation draft	Proposed values	Review certification and effectivity
Regional endorsement	Regional review completed	Central and Secretary actions
Matching certification	Certified version	Publication postings and elapsed period
DOF publication alone	One final publication channel	Local channels and relevant dates
All events and period stipulated	Operative for supplied exercise	Later measure jurisdiction and version

Treat social posts and news releases as leads to the controlling documents. They can accurately report certification while omitting a later publication date. A printed tax declaration may show what an office applied, but it does not independently establish that every prior SMV requirement was satisfied. Explain what each record proves and what further evidence is needed.

11 Applying the operative schedule

Act section 18 connects the approved SMV with national and local property-related taxation and government appraisals. For local purposes, it provides a basis for general revision of assessments and property classifications and for lawful consideration of assessment levels and rates by the sanggunian. Application still requires the subject’s property facts, actual-use classification, eligibility or exemption and the applicable policy. A market-value table is not itself an ordinance prescribing every component of the taxpayer’s liability. [1; 2, section 39]

In the statutory internal-revenue use rule, compare the SMV-based amount with actual gross selling consideration in the transaction documents and use the higher amount within the applicable regime. If a stipulated operative SMV amount is PHP 4.8 million and actual gross selling consideration is PHP 5.1 million, the comparison selects PHP 5.1 million. It does not calculate the tax, determine the transaction’s character, or establish every applicable exemption or rate. Transitional cases require separate checking under Lesson 22. [1, section 18(a)(3)]

The government-appraisal use requires similar care. An SMV can provide an important statutory basis or benchmark, but the analyst must still identify the purpose, property interest, relevant date and other governing laws. IRR section 39.2 describes benchmark uses for government transactions, including negotiated acquisition and expropriation under existing laws. A benchmark does not authorize calling every table-derived figure a complete judicial determination of just compensation. [1, section 18(b); 2]

For a simplified land application, assume an operative category correctly applies to 500 square metres at PHP 6,000 per square metre and no further adjustment is stipulated. The base land indication is PHP 3 million. A supplied assessment level of twenty percent gives assessed value of PHP 600,000. A supplied basic levy of one percent gives raw basic tax of PHP 6,000. Each amount needs its own label. Additional levies, exemptions and relief remain outside that particular calculation unless expressly supplied.

12 Prepare the revenue and tax impact report

The approved SMV is transmitted to the local chief executive and sanggunian through the relevant assessor. Act section 17 requires the assessor, coordinating with the local treasurer, to prepare a revenue and tax impact report including three different proposed options for adjusting existing assessment levels and tax rates. The report is submitted to the local chief executive and sanggunian within thirty days from receipt of the approved SMV. IRR sections 35–38 elaborate transmission, content, submission and consistency with LGU powers under the Local Government Code. [1, 2]

The report should explain how updated valuations affect both the revenue base and taxpayers. An aggregate gain can conceal large differences across residential, commercial, agricultural or other groups. A credible analysis examines the existing assessed amounts, supported revised values, applicable levels and levies, exemptions, caps, other relief, collection performance and distribution of changes. These are original analytical fields, not a substitute for the prescribed reporting rules or a claim that every listed field appears verbatim in the Act.

Keep the baseline consistent. A comparison between last year’s actual collections and this year’s uncapped assessed taxes mixes different measures. Distinguish market value, assessed value, gross levy, legally payable amount after applicable adjustments, billed amount and cash collected. State the period and treatment of arrears, discounts, interest and penalties. Without those distinctions, a table can exaggerate the fiscal effect of the new schedule or attribute a collection improvement solely to valuation.

Prepare policy options by holding the supported valuation evidence visible while changing only the lawful policy inputs under consideration. If an option seeks affordability, explain which assessment level or rate is proposed, its authority and the resulting impact. The assessor’s analytical recommendation is not enactment. The sanggunian’s consideration must operate within applicable legal limits and procedures. DOF’s 11 July 2026 explanation likewise emphasizes retained LGU authority over assessment levels and tax rates. [4]

The receipt-based impact deadline is not automatically the certification date or the fifteen-day effectivity date. Record the date the new SMV was received by the concerned office, the responsible preparer and coordinator, and the report’s submission to the specified recipients. A forward-looking draft can support timely preparation, but a draft is not proof that the report was formally submitted with its required options.

13 An original impact model with three options

The Harana teaching model supplies three homogeneous groups and a single raw basic-tax levy of one percent. Group R has 100 residential land records, each changing from PHP 1 million to PHP 1.5 million with a supplied twenty-percent assessment level. Group C has 20 commercial land records, each changing from PHP 5 million to PHP 6 million with a supplied forty-percent level. Group A has 50 agricultural land records, each changing from PHP 800,000 to PHP 1 million with a supplied forty-percent level. These are fictional inputs for mathematical comparison, not local adopted schedules or a taxpayer’s actual payable bill.

The unchanged-policy raw basic-tax baseline is PHP 200,000 for R, PHP 400,000 for C and PHP 160,000 for A, totalling PHP 760,000. Using revised values with the same supplied policy gives PHP 300,000, PHP 480,000 and PHP 200,000, totalling PHP 980,000. The raw increase is PHP 220,000 or approximately 28.95 percent. Per record, the changes are PHP 2,000 to PHP 3,000 for R, PHP 20,000 to PHP 24,000 for C and PHP 3,200 to PHP 4,000 for A. Those percentage increases are fifty, twenty and twenty-five percent respectively.

Group	Records	Old MV each PHP	New MV each PHP	Supplied AL
R residential land	100	1,000,000	1,500,000	20%
C commercial land	20	5,000,000	6,000,000	40%
A agricultural land	50	800,000	1,000,000	40%

Original model note: All groups use a hypothetical 1% basic levy in the baseline and unchanged-policy comparison. No actual exemption or payable tax is established.

Option 1 changes assessment levels to 15 percent for R and 35 percent for both C and A, retaining the supplied one-percent basic levy. The revised raw totals are PHP 225,000, PHP 420,000 and PHP 175,000, or PHP 820,000 overall. Option 2 retains the original levels and applies a purely hypothetical basic levy of 0.8 percent, producing PHP 240,000, PHP 384,000 and PHP 160,000, or PHP 784,000 overall. Option 3 combines the Option 1 levels with a hypothetical 0.9-percent basic levy, producing PHP 202,500, PHP 378,000 and PHP 157,500, or PHP 738,000 overall.

Raw basic-tax scenario	R PHP	C PHP	A PHP	Total PHP
Original baseline	200,000	400,000	160,000	760,000
Revised unchanged policy	300,000	480,000	200,000	980,000
Option 1 AL adjustment	225,000	420,000	175,000	820,000
Option 2 levy adjustment	240,000	384,000	160,000	784,000
Option 3 combined adjustment	202,500	378,000	157,500	738,000

All three are arithmetic policy scenarios. Their adoption would require lawful authority, eligibility, enactment and application of all governing rules. A displayed basic levy must not be used to change an independently governed SEF levy by implication. The examples also deliberately stop before statutory transitional caps and other relief. Label every result raw uncapped basic-tax illustration. Lesson 22 develops the transition and relief overlay needed before determining payable amounts.

Aggregate neutrality is not distributional neutrality. Option 2 produces only PHP 24,000 more than the total baseline, yet R increases by twenty percent while C decreases by four percent and A is unchanged. Option 3 lowers the aggregate by PHP 22,000, yet R remains 1.25 percent above its baseline while C and A decline. A report should make such differences visible rather than stating that a near-neutral total guarantees unchanged bills for all taxpayers.

14 Distinguish assessment from cash collection

Suppose the Harana teaching baseline raw levy is PHP 760,000 and the supplied collection ratio is eighty percent, yielding an illustrative PHP 608,000 in cash. If Option 1’s raw levy of PHP 820,000 is multiplied by a hypothetical seventy-five-percent ratio, the cash estimate is PHP 615,000. The raw levy rises by PHP 60,000, but the modeled cash rises by only PHP 7,000. This is a sensitivity illustration, not a statutory tax calculation or a forecast based on observed collection behavior.

A collection ratio must have a defined numerator, denominator and period. Current-year collections divided by current-year bills differ from cash that includes arrears divided by current-year assessed taxes. Discounts and relief can also change the amount legally payable and the relationship between assessments and cash. If the ratio is drawn from a treasury report, reconcile what that report measures before applying it to another scenario.

The original model uses three separate layers: supported valuation, lawful assessment and tax computation, and collection assumptions. A movement in one layer should not be disguised as a movement in another. Improving payment administration can raise collections without changing market value. Reducing a lawful rate can lower liability without discrediting the supported valuation. Updating an old schedule can change the raw base even where the transition rules constrain immediate payable amounts.

For practical review, reconcile the number of properties and total market values before comparing outputs. Retain excluded or exempt groups separately, disclose assumptions about new construction and transfers, and test distribution by relevant category. Explain both the magnitude and the cause of change. A revenue estimate that cannot be reconciled to the underlying property population is difficult to defend even if its multiplication is correct.

15 Updating revisions and emergency suspension

After the initial updating, Act section 19 establishes a three-year updating and general-revision cycle. IRR sections 41–42 distinguish the initial update from regular updates and discuss their relationship with local ordinances. For the initial new schedule, the IRR describes the amendment of ordinances adopting the prior SMV when the certified new SMV becomes effective, without prejudice to lawful ordinances on levels, rates and administration. For regularly updated schedules it addresses an ordinance for general revision. Do not collapse these different provisions into one universal statement about ordinances. [1, 2]

A significant intervening market change or an identified error can require consideration of revision before the next regular cycle. Examples in the checked provisions include road right-of-way or similar infrastructure, calamities or disasters, a pandemic or declared health emergency and analogous adverse circumstances. The assessor recommends revision through the stated process. An infrastructure announcement does not itself certify a replacement schedule or prove that every nearby property gained the same percentage. [1, section 19; 2, section 43]

Distinguish revising an SMV from suspending the conduct of general revision. IRR section 44 describes national emergency declared by the President and local calamity declared by the local chief executive. The national-emergency suspension lasts until the relevant declaration is lifted. The local-calamity suspension is thirty days, with a further extension on BLGF recommendation to the Secretary for another thirty days or the calamity's continued existence, whichever is shorter. It is not an automatic tax exemption or cancellation of every existing obligation. [2]

The statutory web text contains wording and cross-reference issues in section 19, including the emergency-declaration phrase and a reference rendered as section 41. The IRR provides separately organized revision and suspension provisions. For examination study, identify the requested source and preserve its distinctions. For professional application, use the official published Act, the IRR and authoritative interpretation or current instructions rather than silently repairing a disputed phrase. A summary should not manufacture a legal reconciliation.

16 Read procedural evidence and current legal status

An original status memorandum begins with the requested decision date, jurisdiction, schedule version and claimed stage. It then records the preparation and consultation evidence, BLGF route and endorsements,

Secretary action, required publication and posting, elapsed period, impact-report status and any later relevant measure. The conclusion states the strongest supported status and the unresolved item. This is more useful than an unqualified label such as approved when the file contains only a consultation draft.

Maintain accurate Act-to-IRR locators. Preparation under Act section 15 spans IRR sections 23–29; certification and remand under Act section 16 span IRR sections 30–34; the impact report under Act section 17 spans IRR sections 35–38; uses under Act section 18 correspond to IRR section 39; updating and suspension under Act section 19 span IRR sections 41–44. Matching section numbers alone would point the student to the wrong subject. The table below is an original procedural crosswalk.

Procedural subject	Act	IRR
Preparation publication consultation and review	15	23–29
Certification remand and effectivity	16	30–34
Revenue and tax impact report	17	35–38
Uses of approved schedule	18	39
Initial and regular updating	19	41–42
Intervening revision	19	43
Emergency general-revision suspension	19	44

Current policy discussion must be classified by its legal status. The PCO's 6 August 2026 release reports a proposal to Congress for temporary suspension of RPVARA implementation. The LEDAC priority list includes RPVARA amendments. Those records establish a proposal and legislative agenda; neither record alone proves an enacted amendment, a universal suspension date, or cancellation of a particular certified SMV. A claim of operative suspension needs the actual controlling instrument, its scope, publication, effective date and applicability. [5, 6]

The original statutory and IRR periods remain the source-specific study rules developed here. Current application requires checking for later lawful changes. Do not infer enactment from policy preference, pending legislation, a private-sector request, or an article anticipating a future start date. Conversely, do not dismiss a controlling later measure merely because it differs from a remembered rule. Record the document and explain precisely what it changes.

Lesson 22 develops transition, tax relief and data governance. Carry forward the operative-schedule test and the separation between raw tax illustrations and payable liability. Your final answer should identify the action, responsible actor, trigger, evidence, applicable rule and conclusion. Where evidence is incomplete, state what is established and what document is still needed instead of supplying certainty through arithmetic.

17 Ten worked procedural and impact cases

Attempt each case before reading its solution. Dates and values are supplied fictional learning assumptions. Preserve the distinction between source rules, stipulated counting conventions and actual implementation evidence.

Case 1 Apply the supplied category

Question: A fictional operative land schedule correctly applies to 400 sq m at PHP 8,000 per sq m. No adjustment is stipulated. Calculate the base land indication and identify two additional checks before computing an actual tax bill.

Solution: Base land indication = 400 × 8,000 = PHP 3.2m. Check the applicable actual-use classification and assessment level, then the lawful levies and eligibility or relief; also verify any improvements separately.

Reasoning: The SMV-derived land amount is a valuation input. It does not include every building, levy or adjustment by implication. RA 12001 sections 4 and 18 govern distinct value and application questions.

Case 2 Check both consultation windows

Question: A proposal is published and posted on 1 October 2026. Consultations occur on 20 October and 10 November. Submission is 30 November. Using elapsed calendar days and no special counting rule, check the two-week lead and sixty-day window.

Solution: First consultation follows publication by 19 days. The sessions are 41 and 20 days before submission. Both timing relationships pass the supplied test.

Reasoning: This arithmetic verifies the supplied dates, not the adequacy of publication channels or consultation records. Act section 15 and IRR sections 26–27 impose separate conditions.

Case 3 Regional receipt does not start every clock

Question: A provincial proposal reaches the regional BLGF office on day 0. A student says the Secretary must certify it by day 30 because all clocks start on day 0. Explain the error.

Solution: Regional review has its own receipt trigger and 45-day period. Head-of-BLGF endorsement and Secretary certification each use a different relevant receipt and a 30-day period. The Secretary receipt date is not supplied.

Reasoning: Act sections 15–16 and IRR sections 29–30 define actor-specific events. Even the sum of maximum periods is not proof of actual receipts or guaranteed effectivity.

Case 4 No automatic certification through silence

Question: Thirty-one days have elapsed since the Secretary received an endorsed proposal. No certification or remand is established. Which schedule continues under the checked rule?

Solution: The existing SMV remains in effect; the proposal is not automatically certified by silence.

Reasoning: Act section 16 and IRR section 30 expressly preserve the existing schedule in the absence of action within the period. Delay and deemed approval are different propositions.

Case 5 Respond to written standards findings

Question: The Secretary remands a proposal for unsupported unit conversions. The assessor proposes a uniform 10% reduction in values to avoid another objection. What response is required?

Solution: Correct and document the unit conversions and any resulting valuation changes, link the revision to the written finding, and follow the qualified consultation and resubmission provisions.

Reasoning: Act section 16 and IRR sections 31–33 require an explained standards response. A blanket discount does not establish correction; Secretary content control to achieve a preferred tax outcome is prohibited.

Case 6 Separate certification and effectivity

Question: Certification is on 2 December. Every required publication and posting act is stipulated complete on 5 December. Exclude the event day, count 15 calendar days and assume no other legal interruption. What is the teaching effectivity date, and what status exists on 10 December?

Solution: Teaching effectivity date = 20 December. On 10 December the schedule is certified and the stipulated publications are complete, but the exercise’s effectivity period has not elapsed.

Reasoning: Act section 16 and IRR section 34 supply the publication-based period. A real staggered-publication dispute requires the controlling instrument and authoritative counting guidance.

Case 7 Read the three policy options

Question: The supplied raw basic-tax baseline totals PHP 760,000. Revised-value unchanged-policy total is PHP 980,000. Options 1, 2 and 3 total PHP 820,000, PHP 784,000 and PHP 738,000. Compute the change from baseline for each option and explain whether Option 2 preserves every group's burden.

Solution: Changes are +PHP 60,000, +PHP 24,000 and −PHP 22,000, approximately +7.89%, +3.16% and −2.89%. Option 2 does not preserve every group: R rises 20%, C falls 4%, and A is unchanged in the model.

Reasoning: Aggregate results do not prove distributional neutrality. These are raw uncapped basic-tax illustrations before transition and other relief, not actual payable liabilities.

Case 8 Model cash separately

Question: A raw baseline levy of PHP 760,000 has a supplied 80% collection ratio. A hypothetical policy scenario has PHP 820,000 raw levy and a supplied 75% ratio. Calculate both cash illustrations and their change.

Solution: Baseline cash = PHP 608,000. Scenario cash = PHP 615,000. Modeled cash increases PHP 7,000 while raw levy increases PHP 60,000.

Reasoning: A collection ratio is a separate assumption with its own period and definitions. The calculation does not establish legal liability or forecast actual treasury receipts.

Case 9 Select the higher supplied basis

Question: An operative-regime exercise supplies an SMV amount of PHP 4.8m and actual gross selling consideration of PHP 5.1m. Select the amount under Act section 18(a)(3), then explain what remains unresolved.

Solution: Select PHP 5.1m as the higher amount. Transaction characterization, applicable tax, rate, exemption and any transitional applicability remain separate questions.

Reasoning: The comparison rule chooses a valuation basis for the stipulated regime; it does not by itself compute every internal revenue tax.

Case 10 Classify a suspension proposal

Question: A file contains a presidential news release proposing temporary suspension to Congress and a legislative priority list. It contains no controlling enacted or issued measure. Can the file prove that all SMVs were universally suspended on the announcement date?

Solution: No. It establishes a proposal and agenda. Seek the actual controlling instrument, legal status, scope, publication and effective date before concluding operative suspension.

Reasoning: The official 2026 proposal evidence is distinct from an enacted change. The operative-regime inquiry must be dated and source-specific.

18 SMV procedure and impact worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for complete workings. All numerical taxes are raw uncapped basic-tax illustrations.

1 Build the event register

For a provincial proposal, list the events needed from BLGF notice receipt to effectivity. Attach the actor and the Act or IRR locator to the regional, head-of-BLGF and Secretary review clocks.

_____

_____

_____

2 Check consultation timing

Publication and posting are stipulated on 1 October; consultations on 20 October and 10 November; submission on 30 November 2026. Use elapsed calendar days. Check both periods, then identify evidence not established by these dates.

_____

_____

_____

3 Write a status conclusion

A matching certificate exists. Only the DOF website publication is documented. The local website and physical posting records are absent. State the supported status and the evidence needed to establish effectivity.

_____

_____

_____

4 Plan a remand response

Written findings identify an unsupported transaction adjustment. Explain a correction matrix, the qualified consultation language, the 30-day resubmission trigger and the checked IRR 10-day decision trigger.

_____

_____

_____

Impact worksheet continued

5 Complete an impact illustration

Use 10 homogeneous records, each with original MV PHP 2m and revised MV PHP 3m. Original AL 20% and supplied basic levy 1%. Compare baseline, revised unchanged policy, and three mathematical options: AL 15% at 1%; AL 20% at 0.7%; AL 15% at 0.9%. Report totals and changes. All results are raw uncapped illustrations.

_____

_____

_____

6 Distinguish collection assumptions

Use the worksheet baseline raw levy at an 80% supplied ratio and the first policy option at 75%. Compute both cash illustrations. Explain why tax liability and cash collections need different labels.

_____

_____

_____

7 Apply a supplied internal revenue rule

An operative-regime question supplies SMV amount PHP 6.2m and actual gross selling consideration PHP 5.8m. Select the amount under Act section 18(a)(3) and state at least three facts still needed for an actual tax calculation.

_____

_____

_____

8 Verify later legal action

A news report anticipates RPVARA suspension, while the file contains an older certified schedule. Prepare the document checks needed to determine the schedule or regime applicable on a stated transaction date. Distinguish national policy proposals from emergency general-revision suspension.

_____

_____

_____

19 Review and examination checks

Distinction	What to establish
Schedule value and tax bill	Correct property category and all applicable tax inputs
Notice receipt and letter date	Actual triggering receipt
Initial update and preparation	Separate two-year and twelve-month triggers
Proposal and certified publication	Separate purpose channels and period
Two weeks and fifteen days	Consultation lead differs from final effectivity
Consultation and committee meeting	Proposal-specific process differs from forum meetings
Regional and Secretary receipt	Each clock starts at its own event
Silence and certification	Existing schedule continues under stated rule
Remand and content control	Correct standards findings rather than revenue targets
Certified and operative	Final publication postings and period matter
Report and ordinance	Analysis differs from lawful policy enactment
Aggregate and group impact	Near-neutral totals can hide unequal changes
Raw tax and payable amount	Apply transition and other relief separately
Assessed taxes and cash	Collection assumptions need their own definitions
Proposal and legal change	Obtain controlling instrument and effectivity

Answer a procedural question in order

Identify the jurisdiction, date, version and requested action. Name the responsible actor and triggering event. Apply the checked rule to the supplied evidence. State the resulting status or calculation and identify the next missing document. Use a law-to-IRR locator rather than relying on matching section numbers.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Use the source, dates and assumptions identified in each question.

1. What is an SMV under RA 12001 section 4(p)?

A. A uniform price for every Philippine parcel

B. A list of actual tax payments

C. A table of base unit market values for kinds of real property except machinery

D. A certificate exempting all listed properties

2. Which event starts the 12-month preparation period as expressed in IRR section 25?

A. The assessor’s graduation

B. Receipt by assessors of the BLGF notice to submit proposed SMVs

C. A taxpayer’s first payment

D. Secretary certification

3. What lead time applies to publication of the proposal before consultation?

A. At least two weeks

B. Only the morning of the hearing

C. Ten months

D. Exactly fifteen days after certification

4. Which combination reflects the required proposal-publication channels?

A. A private group chat only

B. A consultant’s brochure only

C. One social post with no schedule attached

D. Relevant official website publication and two conspicuous physical postings

5. Under the checked initial-preparation rule, how many consultations occur in what submission window?

A. One every three years regardless of submission

B. At least two within 60 days before submission

C. Four after the first tax bill

D. None if the consultant is licensed

6. Which statement about IRR section 27 consultation mode is correct?

A. Online attendance is always prohibited

B. Committee attendance always replaces proposal consultation

C. Only a unanimous taxpayer referendum is allowed

D. In-person online or hybrid conduct is permitted

7. A provincial proposal reaches the regional office. What review and endorsement period applies under IRR section 29?

A. 45 days from regional receipt

B. Three years from the last sale

C. 15 days from newspaper reporting

D. 30 days from the owner's payment

8. Under IRR sections 28–29, where are proposals from NCR cities and the lone NCR municipality directly submitted?

A. The barangay treasurer

B. The appellate court

C. BLGF Central Office

D. A private appraiser association

9. Under the initial certification rule, the Secretary takes no action within 30 days of relevant receipt. What follows?

A. The existing SMV remains in effect

B. The proposal is deemed certified

C. All property taxes are cancelled

D. Every proposed value doubles

10. What should a remand for PVS noncompliance contain?

A. Only a revenue target

B. A direction to conceal the evidence

C. A taxpayer referendum replacing valuation

D. A written explanation identifying the standards not complied with

11. Which limit applies to the Secretary's SMV role under Act section 16?

A. The Secretary must prescribe every local assessment level

B. The Secretary shall not exercise control over SMV content

C. The Secretary collects each taxpayer payment

D. The Secretary may deem every draft effective by press release

12. What is the checked IRR section 32 resubmission period?

A. Three years after the last revision

B. 45 days from the sale deed

C. 30 days from receipt of the remanded SMV

D. 15 days from local posting

13. Under IRR section 33, what decision period applies to the resubmitted SMV?

A. No period is stated

B. 60 days from initial taxpayer comment

C. 12 months from the election

D. 10 days from Secretary receipt

14. Which conclusion follows from a matching certification alone when required publication records are missing?

A. Certification is established but effectivity is not established from the file

B. The schedule is necessarily operative on signature day

C. All publication requirements are waived

D. The existing schedule never existed

15. All required publication and posting acts are stipulated complete on 5 December. Exclude that day and count the following 15 calendar days. What teaching effectivity date results?

A. 5 December

B. 10 December

C. 20 December

D. 5 January

16. Who prepares the revenue and tax impact report under Act section 17?

A. The buyer’s broker without government coordination

B. The concerned assessor in coordination with the local treasurer

C. The regional committee acting as an appeal court

D. Only the Register of Deeds

17. What does Act section 17 require concerning options and timing?

A. One option within 15 days from the sale

B. Three proposed options and submission within 30 days from receipt of the approved SMV

C. Two options only after all arrears are paid

D. No options if values increased

18. Ten records each have revised MV PHP 3m, supplied AL 15% and a hypothetical basic levy 1%. What is the total raw uncapped basic-tax illustration?

A. PHP 450,000

B. PHP 4,500

C. PHP 45,000

D. PHP 30m

19. An operative-regime exercise supplies SMV amount PHP 6.2m and gross selling consideration PHP 5.8m. Which amount is selected under Act section 18(a)(3)?

A. PHP 5.8m because lower is always used

B. Their average of PHP 6m

C. Zero because a sale occurred

D. PHP 6.2m as the higher amount

20. A file contains only a national proposal for RPVARA suspension and a legislative agenda item. What conclusion is supported?

A. A proposal is established but operative suspension requires the controlling measure

B. A national tax holiday has conclusively begun

C. The Act was necessarily repealed that day

D. Every certified schedule is automatically void

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	B
2	B	12	C
3	A	13	D
4	D	14	A
5	B	15	C
6	D	16	B
7	A	17	B
8	C	18	C
9	A	19	D
10	D	20	A

1. C The definition concerns base unit values and excludes machinery from the schedule definition. Machinery still requires its applicable valuation and tax treatment.

2. B IRR 25 includes publication and consultation in the notice-receipt-based preparation period. It differs from the initial updating and regular revision clocks.

3. A Act 15 and IRR 26 provide at least two weeks before consultation. The certified schedule’s fifteen-day effectivity period is a different requirement.

4. D The checked Act and IRR require official website publication and physical postings. An additional communication channel does not establish compliance by itself.

5. B Act 15 requires two mandatory consultations; IRR 27 states at least two within sixty days before submission.

6. D IRR 27 permits those modes. The proposal-specific requirement must be distinguished from institutional consultative committee meetings.

7. A The regional review clock is forty-five days from receipt of the proposed SMV at that office. Different review actors have different receipt triggers.

8. C The IRR expressly provides direct central submission and review for that NCR group. Actual files still need accurate routing and authoritative instructions.

9. A Act 16 and IRR 30 preserve the existing schedule. Silence is not deemed approval of the proposed schedule.

10. D The written finding must specify standards noncompliance. A revenue preference does not establish a technical correction.

Answer explanations continued

11. B Certification and reasoned remand are distinct from controlling values to meet a preferred policy result.

12. C IRR 32 identifies the thirty-day remand-receipt trigger and qualified consultation and routing provisions. It is not the initial Secretary certification clock.

13. D The checked IRR sets ten days from receipt of resubmission. Without a decision the existing schedule remains in effect under the stated rule.

14. A Act 16 and IRR 34 also require the publication and posting sequence and elapsed period. An incomplete file should not be converted into certainty.

15. C The fifteenth following calendar day is 20 December under the expressly supplied convention. Live date questions require governing counting and publication evidence.

16. B The assessor and treasurer coordinate impact analysis for submission to the local chief executive and sanggunian. Their report is distinct from policy enactment.

17. B The report addresses three different proposed adjustment options and a receipt-based thirty-day deadline. The receipt event is not automatically the certification date.

18. C 10 × 3,000,000 × 0.15 × 0.01 = PHP 45,000. This raw illustration precedes legal-adoption checks, other levies and relief.

19. D The stipulated comparison selects the higher amount. Applicable tax, rate, transaction character and relief still require separate determination.

20. A A policy proposal and legislative agenda are different from an enacted or issued operative change. Obtain the actual instrument and verify scope and effectivity.

Worksheet model responses

Response 1

Record notice receipt; proposal preparation and version; website publication and two physical postings; at least two consultations in the required window; submission and relevant receipts; regional review and endorsement where applicable; head-of-BLGF endorsement; Secretary certification or remand; corrected resubmission and decision if required; final publication and posting; effectivity evidence. Regional: 45 days from regional receipt, Act 15/IRR 29. Head of BLGF: 30 days from receipt, Act 15/IRR 29. Secretary initial: 30 days from endorsed receipt, Act 16/IRR 30. Keep each receipt distinct.

Response 2

The first consultation is 19 days after publication; sessions are 41 and 20 days before submission. The supplied elapsed-day test meets at least two weeks and the 60-day window. Verify that the actual proposal was accessible in the required channels, physical postings occurred in the prescribed places, both consultations were conducted and documented, and the submitted version matches the process record.

Response 3

Certification is established for the matching version. Effectivity is not established from the supplied incomplete publication file. Seek local website publication, both required posting records, the relevant dates and controlling instrument, elapsed-period determination, jurisdictional match and any later relevant measure. Missing evidence does not prove the act never occurred.

Response 4

Link the finding to its source standard, affected adjustment, corrective evidence and revised version. Act 16 says the assessor may conduct at least one consultation; IRR 32 describes at least one as may be necessary. Preserve the qualified terms. Resubmit within 30 days from receipt of remand under the IRR; IRR 33 sets the Secretary decision period at 10 days from receipt of resubmission, with the existing SMV continuing if no decision. Verify routing and actual receipts.

Response 5

Baseline = 10 × 2m × 20% × 1% = PHP 40,000. Revised unchanged policy = PHP 60,000, +PHP 20,000 or 50%. Option 1 = PHP 45,000, +PHP 5,000 or 12.5%. Option 2 = PHP 42,000, +PHP 2,000 or 5%. Option 3 = PHP 40,500, +PHP 500 or 1.25%. Revised supported value stays PHP 3m per record. Lawful adoption, other levies, caps and relief must be checked before determining payable taxes.

Response 6

Baseline modeled cash = 40,000 × 80% = PHP 32,000. Option 1 modeled cash = 45,000 × 75% = PHP 33,750. Cash rises PHP 1,750. These ratios are hypothetical collection assumptions and do not amend tax liability. Define periods, current versus arrears collections, discounts and denominator before using an observed ratio.

Response 7

Select PHP 6.2m as the higher supplied amount. Verify transaction date and operative regime, property and transaction character, the tax being computed, applicable rate, eligibility or exemption, and the relevant current tax rules. A comparison of values alone is not a complete tax computation.

Response 8

Obtain the actual enacted or issued controlling instrument; verify authority, status, scope, publication and effectivity; establish transaction date, jurisdiction and schedule version; examine whether an existing certified schedule is superseded or affected. A proposal or agenda alone does not prove suspension. Emergency suspension under IRR 44 concerns conduct of general revision and requires the specified declaration and applicable period; it is not universal tax cancellation.

22 Essential terms and calculation review

SMV Table of base unit market values for real property except machinery under the statutory definition.

Proposal Prepared values before the required review certification and effectivity process is complete.

Consultation record Evidence of the proposal version proceedings concerns and response.

Endorsement Transmission following the relevant BLGF review; distinct from Secretary certification.

Certification Secretary-of-Finance action on conformity with the latest PVS.

Remand Return with written standards findings for correction and resubmission.

Effectivity Operative commencement under the specified publication and elapsed-period conditions.

Impact report Assessor-treasurer analysis with three proposed policy adjustment options.

Raw levy Calculated amount before the applicable caps relief and other adjustments.

Collection ratio Defined assumed or observed relationship between cash and a specified base.

General revision Updating of property values assessments and classifications within the applicable framework.

Legal status Whether a document is a proposal pending measure or operative instrument.

Teaching relationship	Formula or check
Unadjusted land indication	Applicable area × supplied unit value
Assessed value	Market value × applicable assessment level
Raw basic levy	Assessed value × supplied basic rate
Group raw levy	Record count × per-record raw levy
Percentage change	New minus baseline divided by baseline × 100
Cash illustration	Defined levy base × supplied collection ratio
Higher-amount comparison	Greater of stipulated SMV amount and consideration
Operative-schedule test	Correct version certification publication period and later measures

A calculation is not certification, effectivity, a policy enactment or a complete tax bill. Keep the supported valuation visible and test each application layer separately.

23 Sources and preparation status

Bracketed references identify the primary law, official IRR and official current-policy material supporting the lesson. Research was reviewed on 12 October 2026. The explanations, process maps, fictional Harana data, cases and assessments are original learning material.

RA 12001 sections 15–19 provide the principal statutory sequence. The official 29-page BIR-circularized IRR was obtained, and procedural sections 23–44 were checked visually against its scanned pages. The relevant IRR text is on printed pages 17–21; PDF viewer pages are one higher because of the circular front page. Detailed source locators are provided throughout the lesson.

The source texts differ in some routing and procedural wording. The lesson identifies those differences and retains qualified remand-consultation language. A professional filing or disputed counting question requires the official published instruments and authoritative instructions. The simplified date exercises expressly state their counting convention.

The 2026 national materials establish retained local policy powers and a proposal for temporary suspension or amendment. A proposal and legislative agenda are not treated as enactment. For 2027 examination preparation and actual transactions, update the legal status from any later controlling measure and verify the relevant jurisdiction's operative schedule. The source records here do not establish every LGU's implementation status.

The impact calculations deliberately precede the statutory transition and other relief overlay. They are raw uncapped basic-tax scenarios, not actual payable taxes. Lesson 22 develops transition relief and data governance. Detailed PVS model compliance should be checked against the applicable full national standards and current specifications.

1 RA 12001 RPVARA

13 June 2024. Principal study provisions: sections 4 13–19 and related transition provisions. Sections 15–19 support the preparation review impact use and updating sequence. Read alongside the official IRR and any later controlling law.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

2 Official BIR circularized RPVARA IRR

IRR dated 10 December 2024, attached to RMC 30-2025. Sections 23–34 cover preparation through effectivity; 35–38 impact report; 39 uses; 41–44 updating revision and suspension. Printed pages 17–21 were visually checked.

https://bir-cdn.bir.gov.ph/BIR/pdf/RMC%20No.%2030-2025v2.pdf

3 RA 7160 Local Government Code context

10 October 1991. Assessment local fiscal powers treasury and assessment-appeal context, read with the modifications and suppletory provisions of RA 12001 and later law. A consultation does not by itself replace an individual remedy.

https://lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

Official policy sources continued

4 DOF explanation of local policy powers

11 July 2026. Official explanation that LGUs retain authority over assessment levels and tax rates. Used to support the value-policy distinction rather than as evidence of any actual local ordinance.

https://www.dof.gov.ph/dof-lgus-can-reduce-assessment-levels-and-tax-rates-under-rpvara-to-lower-property-taxes/

5 PCO temporary suspension proposal

6 August 2026. Official release reports a proposal to Congress for temporary suspension. Used only for the distinction between proposed policy and an operative legal instrument. Indexed official text was readable; direct-page retrieval was restricted.

https://pco.gov.ph/news_releases/president-marcos-seeks-temporary-suspension-of-real-property-valuation-implementation-to-protect-businesses-investments/

6 LEDAC legislative priority list

20th Congress common legislative agenda includes RPVARA amendments. A priority-list entry is a legislative agenda item, not an enacted amendment or proof of a universal suspension date. Official indexed text was checked.

https://ledac.depdev.gov.ph/resources-2/20th-congress/

REALEX

Lesson 22

RPVARA Transition Tax Relief and Data Governance

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Establish the operative valuation regime before selecting a tax basis. Then assess any first-year cap or arrears amnesty on its own conditions, and determine whether the requested use of property information has lawful authority and safeguards. These are separate decisions requiring different evidence.

This chapter follows the canonical objectives on dated transition scenarios, the distinction between the tax increase cap and arrears amnesty, and legitimate information use. It develops RA 12001 sections 22–30 with the official IRR, source-specific deadline checks and the Data Privacy Act.

The Harana files, computations, maps, cases and questions are original fictional teaching material. Cap calculations expressly stipulate eligibility, unchanged components and the same baseline under both source-date descriptions. The Act-to-IRR baseline wording difference is preserved. Original amnesty dates are distinguished from pending extension proposals and any later controlling measure.

Your learning goals

- Select the applicable regime from dates and schedule status.
- Apply the transitional and operative higher-amount comparisons.
- Distinguish temporary relief from recurring valuation duties.
- Read the Act and IRR cap baselines separately.
- Compute eligible first-year caps by tax component.
- Preserve supported values while reconciling tax relief.
- Separate arrears principal from covered additions.
- Verify original deadlines payments and exclusions.
- Distinguish pending extension proposals from operative law.
- Map data supply and transmission duties and triggers.
- Apply lawful purpose proportionality and controlled access.
- Recognize security accountability and evidence quality.

Study plan: Allow four to five hours in two sessions. Read sections 1–10 for transition and relief, then sections 11–16 for data governance. Attempt the ten cases, two-page worksheet and twenty-question test before checking the explanations.

1 Three decisions that require different evidence

RPVARA transition questions often combine three separate decisions: which valuation regime applies, whether a temporary relief provision reduces a particular obligation, and whether a person may use or disclose property information. An accurate answer must identify the evidence for each decision. A certified schedule does not automatically settle an arrears claim, and an amnesty computation does not authorize publication of the taxpayer's account history.

Lessons 20–21 established the institutional responsibilities and SMV process. This lesson applies them to dated transition files, the first-year tax increase cap, arrears amnesty and real property information. Its principal legal foundation is RA 12001 sections 22–30, with sections 16, 18 and 31 providing important regime context. The official IRR distributes these subjects across sections 46–57. The Data Privacy Act supplies the processing, security and accountability framework expressly incorporated into RPVARA. [1–3]

Begin an original decision sheet with the property, jurisdiction, transaction or tax period, schedule version, relevant dates, type of tax and requested action. Then list the documents that establish certification and effectivity, tax assessments, delinquency history, eligibility and the authority for information use. Keep the three conclusions separately labeled. A file can establish the operative value basis while leaving amnesty eligibility or disclosure authority unresolved.

The Harana scenarios are fictional teaching files. They stipulate the operative regime and baseline where arithmetic is required. The first-year calculations assume an unchanged property and tax component, established eligibility and no other adjustment unless supplied. Those assumptions prevent a simple numerical exercise from being presented as a complete ruling on property additions, reclassification, zero baselines or disputed timing.

2 Determine the regime from the date and schedule status

Select the applicable regime before selecting the highest value. Under the operative approved-SMV framework, Act section 18(a)(3) compares the SMV amount and actual gross selling consideration for the stated internal-revenue use. During the transition where SMVs are not yet available or updated, Act section 29 and IRR section 54 compare existing SMVs, zonal values and actual consideration, choosing the highest. These comparisons concern specified tax valuation bases; they are not competing definitions of market value. [1, 2]

An original file might show an existing SMV amount of PHP 3.6 million, applicable zonal amount of PHP 4.2 million, consideration of PHP 4 million and proposed new-SMV amount of PHP 5 million. If the exercise stipulates that the new schedule is not yet operative and that the transition comparison governs, select PHP 4.2 million. Do not use PHP 5 million merely because it is the largest number on the page. A proposal's amount is not automatically an operative legal input.

For a later transaction, suppose the new schedule is stipulated effective and the applicable approved-SMV amount is PHP 5 million while consideration is PHP 5.3 million. The stipulated section 18 comparison selects PHP 5.3 million. The tax itself remains unresolved until the relevant tax, transaction character, rate, eligibility and other current rules are known. The internal-revenue comparison should not be turned into a local assessed-value formula by multiplying an assessment level indiscriminately.

Regime stipulated	Comparison inputs	Original result
Transition not updated	Existing SMV 3.6m zonal 4.2m consideration 4m	4.2m; exclude nonoperative 5m proposal
Operative section 18	Approved SMV 5m consideration 5.3m	5.3m; tax computation remains separate

The transition proviso also refers to the maximum assessment levels in Local Government Code section 218. Read that reference in its applicable context. It does not authorize applying local assessment levels to every national tax basis or choosing any desired percentage. The exercise's selected value and any subsequent computation must retain their separate legal purposes. [1, section 29; 2, section 54]

3 Preserve continuity while updates are completed

LGUs already updating their SMVs when the Act took effect continue the revisions within the statutory preparation, review, impact-report and updating framework, with proper BLGF notification and coordination. IRR section 53 also addresses progress reports and schedules for completing SMV updating and general revision. An unfinished local project does not become exempt from the national sequence simply because work began under an earlier programme. [1, section 29; 2]

Act section 31 and IRR section 57 contain the saving framework for existing values until they are lawfully superseded or replaced. The IRR expressly discusses existing SMVs as well as BIR zonal values and connects replacement to the approved new schedules. Read those provisions with the section 16 certification and effectivity requirements. The presence of a legal updating deadline does not, by itself, supply a missing approved replacement for a particular jurisdiction.

Retain an original regime register for each schedule version: jurisdiction, governing document, approval or certification status, publication and posting evidence, operative date and superseding measure. A property sale occurring before the established effectivity date can require a different comparison from a sale afterward. A later printed schedule should not be applied retroactively without the governing authority merely because it is newer or easier to obtain.

A missing record and an unperformed act are different findings. If the file contains a certificate but no publication evidence, conclude that effectivity has not been established from the supplied file. Seek the controlling records. Do not state that the schedule definitely never took effect, and do not state that signature day necessarily established effectivity. Lesson 21's operative-schedule test remains the prerequisite to the relief and data questions here.

4 Distinguish temporary relief from recurring rules

The first-year cap and arrears amnesty address different liabilities and clocks. The cap concerns an increase in real property taxes during the first year of effectivity of the approved SMV under the stated framework. Amnesty concerns qualifying penalties, surcharges and interest on pre-effectivity unpaid real property taxes within the original availment window. A taxpayer can have a question about one, both or neither. Neither provision is a general waiver of all property-related taxes. [1, sections 29–30; 2, sections 55–56]

The original statutory amnesty window is two years after Act effectivity. IRR section 56 identifies the original endpoint as 5 July 2026. This is a source-specific original date, not an assertion that relief remains available indefinitely or that no later lawful change can exist. At the research review date of 12 October 2026, that

original endpoint is already past. A new application needs an actual controlling extension or other applicable lawful relief rather than a recycled advertisement of the original programme.

The first-year cap is tied to the approved schedule's first-year effectivity, not simply to the year 2024, the calendar year of a study guide, or the date someone discovers the Act. Succeeding-year caps require the applicable ordinance under the original provision. Do not apply a national automatic six-percent ceiling to every later year without its legal basis. Conversely, a lawful local measure must be read on its actual terms rather than ignored because the national initial cap was temporary.

RPVARA's ongoing standards, periodic updating, information and administrative duties are distinct from these temporary relief measures. A deadline for an amnesty does not terminate the valuation standards. Nor does later discussion of relief remove the need to protect personal information. The original comparison table separates the issue, trigger, scope and evidence so that one memorized date does not govern unrelated questions.

Issue	Trigger and scope	Evidence to check
Operative regime	Date jurisdiction and schedule status	Certification publication and later measure
First-year cap	First year of approved SMV and tax type	Applicable baseline and component assessment
Arrears amnesty	Covered pre-effectivity additions in window	Tax period payments and exclusions
Succeeding-year cap	Applicable lawful local ordinance	Period reference amount and conditions
Data use	Specified task and lawful authority	Role fields purpose security and access

5 Read the first-year cap and its baseline carefully

Act section 29 limits the increase in real property taxes in the first year of the approved SMV's effectivity to six percent of the taxes assessed on the properties before the Act's effectivity. It states that the cap applies to each type of real property tax, including SEF, idle land tax and other special levies. IRR section 55 expresses the comparison baseline as taxes assessed before effectivity of the first SMV under the Act. Those are different descriptions of the reference date, and the difference can matter where assessments changed between the two dates. [1, 2]

Do not silently erase that source difference. For actual assessment, obtain the official published texts, relevant treasury and assessor records, and authoritative implementation guidance identifying the controlling baseline. The numerical cap exercises in this chapter stipulate the same baseline amount under both reference descriptions, removing the disputed date issue for the arithmetic. The chapter does not purport to decide the legal reconciliation where those amounts differ.

If the baseline and eligibility are established, a simple unchanged-component illustration calculates the ceiling as baseline tax multiplied by 1.06. Compare the properly calculated new amount with that ceiling. A new amount below the ceiling stays below it; the cap is a maximum increase, not a direction to raise every assessment by six percent. It is also not a six-percent tax rate applied to market value.

Use the assessed tax for the established reference, not last year's discounted cash payment, a partial payment or an estimated collection. For example, a supplied baseline assessment of PHP 10,000 with a cash receipt of PHP 8,000 does not make PHP 8,000 the stipulated assessed-tax baseline. Their difference may reflect

discounts, partial payment or other facts. Investigate those facts instead of converting a receipt into the legal baseline by convenience.

6 Calculate the cap separately by tax type

The original Harana property has stipulated baseline basic RPT of PHP 10,000, SEF tax of PHP 10,000 and idle land tax of PHP 4,000. The new raw amounts are PHP 14,000, PHP 13,000 and PHP 3,000. Each component has an unchanged property scope, an established first-year cap condition and an identical baseline under both source-date descriptions. No other adjustment is supplied. [1, section 29; 2, section 55]

Basic RPT has a ceiling of PHP 10,600 and the teaching capped amount is PHP 10,600. SEF also has a ceiling of PHP 10,600 and a teaching capped amount of PHP 10,600. Idle land tax has a ceiling of PHP 4,240, but its new raw amount is only PHP 3,000, so the teaching result remains PHP 3,000. Baseline total is PHP 24,000, new raw total is PHP 30,000, and the sum after these component cap comparisons is PHP 24,200.

Tax type	Baseline PHP	Raw new PHP	Ceiling PHP	Teaching result PHP
Basic RPT	10,000	14,000	10,600	10,600
SEF	10,000	13,000	10,600	10,600
Idle land	4,000	3,000	4,240	3,000
Total	24,000	30,000	Not an aggregate test	24,200

Cap table assumptions: First-year eligibility, unchanged comparable components and the same baseline under both source-date descriptions are stipulated. No additional adjustment is supplied.

A cap applied only to the aggregate would give min(PHP 30,000, PHP 24,000 × 1.06), or PHP 25,440. That shortcut fails to preserve the component-by-component treatment in the stated provision. The decline in idle land tax does not create permission to exceed the basic or SEF ceilings. The source speaks of each type, so identify and compare each type before adding the results.

In a second supplied comparison, baseline basic RPT and SEF are each PHP 10,000; new amounts are PHP 8,000 and PHP 13,000. The raw total of PHP 21,000 is below an aggregate ceiling of PHP 21,200. Yet SEF exceeds its individual PHP 10,600 ceiling. The component result is PHP 8,000 plus PHP 10,600, or PHP 18,600. A reassuring aggregate percentage can therefore conceal a component violation.

The compact formula used here is teaching arithmetic for positive, established comparable baselines: component result = lower of new raw component and 1.06 times the stipulated baseline. A new building, newly imposed tax type, zero baseline, exemption change or disputed reference year requires the applicable rules and facts; the formula alone does not determine its treatment. Record the issue instead of assuming every new liability is zero or every increase is fully eligible.

7 Keep valuation policy and relief as separate layers

A property's supported market value remains visible even where a lawful cap limits the immediate tax increase. For example, a supplied new market value of PHP 5 million and assessment level of twenty percent yield assessed value of PHP 1 million. A supplied basic levy of one percent gives raw basic tax of PHP 10,000. If the eligible stipulated baseline is PHP 7,000, the cap ceiling is PHP 7,420 and the cap comparison gives PHP 7,420. It does not reduce market value to PHP 3.71 million to force the raw formula to reproduce the relief amount.

Maintain an original reconciliation with distinct fields: supported market value, applicable assessment level, assessed value, lawful levy, raw tax, relief basis, relief adjustment and resulting liability within the supplied scope. Treasury billing, discounts, payment timing and collections can add further layers. This record explains the result without falsely presenting the relieved amount as a different valuation opinion.

The sanggunian's authority to set or adjust lawful levels and rates remains distinct from the initial statutory cap. A policy adjustment may change the raw liability before the cap comparison, subject to the applicable legal framework. The analyst must identify both authorities and their interaction. Do not stack relief mechanisms in an arbitrary order or assume a local rate change automatically adjusts an independently governed levy. [1, sections 17 and 29; 2, sections 38 and 55]

For later years, read the actual local ordinance authorizing any continuing cap, its coverage, reference amount, period and conditions. The original national rule allows an LGU to enact a cap for succeeding years; it does not supply the terms of every later-year local cap. An original second-year scenario without a supplied ordinance can test that evidentiary gap, but it cannot determine the bill through an unsupported automatic 1.06 multiplier.

8 Identify what arrears amnesty actually covers

RA 12001 section 30 grants amnesty on penalties, surcharges and interest associated with the covered unpaid real property taxes, including SEF, idle land tax and other special levies, prior to Act effectivity. IRR section 56 identifies the original effectivity date as 5 July 2024 and the original payment window through 5 July 2026. The relief addresses the specified additions, not cancellation of the principal delinquent tax. [1, 2]

Suppose an eligible fictional pre-effectivity account shows principal basic RPT of PHP 60,000, principal SEF of PHP 60,000 and covered additions totaling PHP 42,000. Assume timely availment, established coverage, no exclusion and no other charge. Principal is PHP 120,000. The simplified amnesty reconciliation removes the stipulated PHP 42,000 additions and leaves PHP 120,000 principal to be paid. Calling the entire PHP 162,000 balance forgiven would misstate the subject of the grant.

Eligible original-window account	PHP	Treatment in supplied case
Principal basic RPT	60,000	Remains payable
Principal SEF	60,000	Remains payable
Covered additions	42,000	Waived under stipulated eligibility
Original balance	162,000	Principal plus additions
Simplified amount to pay	120,000	Full timely payment assumed

An arrears statement should identify tax period and type, principal, penalty, surcharge, interest, posting date, payments, credits and any other fee. A single overdue-balance field is insufficient to decide the waiver. A tax relating to a later period should not enter the covered pool simply because it appears on the same statement. Separate charges whose legal basis or period is disputed and seek clarification rather than assuming that every amount bearing the word penalty qualifies.

Keep the cutoff explicit. The original Act speaks of taxes prior to its effectivity, while the IRR supplies the effectivity date. For straightforward teaching cases, use clearly pre-effectivity years such as 2022–2023. A charge incurred exactly on a boundary date, or an addition assessed later on an older principal, can require

further legal and accounting detail. Do not resolve every such edge case from the date a statement was printed.

9 Verify the window payment and exclusions

The original amnesty permits one-time or installment payment of delinquent real property taxes within the two-year period. IRR section 56 allows an LGU ordinance to determine the means and method of payment and states that absence of such an ordinance must not prevent implementation of the grant in accordance with the Act. An ordinance organizing payment administration is different from inventing a new statutory eligibility condition or extending the national window without authority. [1, 2]

Do not infer that enrolling before the original endpoint authorizes completing installments whenever convenient afterward. The checked provisions place payment within the stated window. A live installment file needs the approved payment method, schedule, actual receipts and applicable law on incomplete payment. The chapter's exercise stipulates full timely payment and excludes disputes about partial performance, so the relief arithmetic can be evaluated without inventing an installment remedy.

The grant excludes delinquent real properties disposed of at public auction to satisfy tax delinquencies; properties whose tax delinquencies are being paid under a compromise agreement; and properties subject to pending court cases for real property tax delinquencies. Match the actual facts to those categories. A pending ownership dispute is not automatically the same thing as a pending court case for tax delinquency. Likewise, an auction notice alone does not establish that the property was already disposed of at auction. [1, section 30; 2, section 56]

Specified exclusion	Do not assume from
Disposed at auction for tax delinquency	An auction notice alone
Delinquency paid under compromise	Any ordinary installment request
Pending court case for tax delinquency	An unrelated ownership case

For the original eligibility checklist, examine the covered tax and period, nature of the additions, original or lawfully changed deadline, payment records and the three exclusions. Verify the legal status of any later measure. A large unpaid balance, financial hardship or an advertised payment opportunity does not supply every missing condition. Report the specific unresolved fact and the document that can establish it.

10 Check extension claims against controlling law

The original IRR endpoint of 5 July 2026 is important for historical applications and for recognizing that the original window has passed. Any later extension requires its actual controlling authority and terms. The research check found official House committee listings for proposed RPVARA amendments, including HB10758, which proposes extending the cap and amnesty periods and is listed as pending with the committee. That listing establishes a legislative proposal, not an enacted extension. [4]

Other official policy records report a proposed temporary suspension of RPVARA implementation. A suspension proposal, an amnesty-extension bill and a local payment announcement may address different issues. Read the actual measure and its legal status. A claim that all deadlines were extended cannot be established by combining three headlines or by selecting the most favorable promised date. [4, 5]

An original deadline verification note records the requested application date, original provision, claimed amendment or extension, official document number, status, publication, commencement, duration, scope and payment conditions. If the document is still a bill, label it pending. If a later law is supplied, analyze the enacted text and its effectivity rather than substituting the bill title. The absence of an enacted instrument in a limited search is not proof that none could exist; state what the checked records establish.

A fictional application on 30 June 2026, with full payment and all original eligibility conditions stipulated, falls before the original IRR endpoint. A different application on 12 October 2026 with only a pending extension bill does not establish a currently open statutory amnesty window from that evidence. These are dated source-based scenarios. For actual 2027 preparation or professional use, update the controlling-law check instead of treating the original two-year rule as either perpetual or immune to amendment.

11 Understand the RPIS data framework

Act section 22 directs BLGF to develop and maintain an updated electronic database of real property transactions and declarations, including sale, exchange, lease, mortgage, donation and transfer, and information on construction or renovation costs and prices of plant, machinery and equipment. The RPIS is an information system supporting valuation and administration. It is not an independent court decision on title, a universal public download portal, or a replacement for evaluating transaction evidence. [1; 2, section 46]

Mandatory submission of necessary government and local documents remains subject to disclosure restrictions and security requirements under the Data Privacy Act and other laws. The provision also describes no-cost availability to LGUs and national government agencies without prior approval, with specified qualifications, including NIRC section 270 and Data Privacy Act sections 12–13. Private-sector access is subject to BLGF guidelines. Those distinctions should remain visible in a data-access answer. [1, section 22; 2]

Operational government availability does not automatically authorize a staff member to export all records for a personal enterprise or publish a searchable file of owners and tax histories. Determine the requesting role, official task, lawful processing basis, necessary fields, security controls and permitted onward use. A private appraiser’s legitimate professional objective can support a properly scoped request; it does not dispense with the governing access guidelines and applicable confidentiality rules.

The property-data universe includes both useful valuation attributes and identifying information. A transaction amount, date and property description may be essential to analysis; an identity-document image, personal contact number or unrelated private detail may not be needed in an analytical extract. The correct decision depends on the purpose and record. Classify fields and access rather than declaring all data public or all transaction amounts sensitive personal information by definition.

12 Distinguish submission duties and their triggers

Act section 23 requires the Register of Deeds to supply assessors with an abstract of the entire registry every three months and copies of the relevant registered transaction contracts at each month end, free of fees and charges. The abstract identifies sufficient property descriptions, present owners and recent transfer dates with the corresponding deeds. IRR section 47 mirrors this supply framework. A quarterly abstract and monthly contract copies are different deliverables. [1, 2]

Act section 24 and IRR section 48 address electronic transmission of relevant transaction data to BLGF by Registers of Deeds, BIR, notaries public, officials issuing building permits and geodetic engineers conducting surveys within a locality. The specified transmission is quarterly, free of charge and triggered upon operationalization of the property transaction database, under the implementing rules. The existence of the Act does not prove that a particular electronic endpoint was operational on a claimed date.

Duty	Recipient	Timing or trigger
Registry abstract	Specified assessors	Every three months
Registered contract copies	Specified assessors	At month end
Specified actors electronic transaction data	BLGF	Quarterly upon database operationalization

An original transmission log records submitting office, covered period, required deliverable, receiving authority, format, transfer date, acknowledgment, record count and exception resolution. A notary's quarterly electronic duty should not be confused with the Register of Deeds' monthly-copy obligation to assessors. Nor does successful upload establish that every record is correct or free of duplication. Reconcile completeness and identity after receipt.

Act section 22 also calls for automation of property tax administration, tax mapping, software-enabled valuation, regular cleansing and computerized records management with BLGF and DICT support. The original two-year automation target is a statutory implementation requirement, not proof that every LGU achieved full automation. A professional status report needs the actual systems, data quality, access arrangements and implementation evidence for the jurisdiction concerned. [1; 2, section 46]

13 Apply lawful purpose and proportionality

The Data Privacy Act requires transparency, legitimate purpose and proportionality in processing personal information. Collection should serve specified legitimate purposes, processing must be lawful and fair, data should be accurate and relevant, and the fields and retention should not be excessive. These principles operate alongside RPVARA's information duties. Compliance is not achieved by adding a generic privacy disclaimer to an otherwise unrestricted export. [3, section 11]

Consent is one lawful basis for ordinary personal-information processing, but it is not the only one. Section 12 includes legal obligation and necessary public-authority functions among its conditions, subject to the Act and other law. A statutorily required property-data submission is therefore not automatically blocked simply because every owner has not signed a new consent form. Identify the applicable basis and limits, rather than demanding consent for all public functions or treating a legal obligation as permission for all secondary uses. [3]

Sensitive personal information and privileged information require the separate conditions in section 13. Property records can contain information from those categories, such as certain government-issued identifiers or protected communications. Classify the actual field and check the appropriate rule. Do not assume that an ordinary analytical field acquires a valid sensitive-data processing basis just because other fields were lawfully collected in the same database.

The original field-purpose matrix separates a controlled source archive, an authorized valuation working extract and a possible public summary. The archive may need complete supporting documents under its lawful function and access safeguards. The extract should include the fields necessary for the valuation task. A public summary should be assessed for authorized disclosure, aggregation and reidentification risk. The same source can therefore support different records for different audiences without losing the valuation audit trail.

Record layer	Purpose	Control example
Protected source archive	Lawful evidence retention and verification	Authorized roles and justified retention
Valuation working extract	Specified official analytical task	Necessary fields and controlled source links
Potential public summary	Authorized disclosure purpose	Aggregation and reidentification review

Removing names alone does not guarantee anonymity. An exact parcel location, transaction date and unusual price can allow a record to be linked to a known owner. Evaluate combinations of fields and small groups. An original publication option might aggregate by market segment and period, suppress uniquely identifying combinations and retain the detailed source only within authorized access. Those are practical safeguards whose design must be tailored to the lawful disclosure purpose and risk.

14 Protect quality security and accountability

Data quality and privacy support each other. A mistaken owner identity, duplicated sale, hectare-to-square-metre error or outdated property classification can distort a model and unfairly associate an individual with an incorrect transaction. Preserve source provenance, review corrections, distinguish raw and corrected fields and retain a version history. Data cleansing should improve the record without deleting unfavorable observations merely to make an impact report look better.

Section 20 of the Data Privacy Act requires reasonable and appropriate organizational, physical and technical safeguards. Their design considers the nature of the information, processing risks and operational circumstances. An original property-data control plan can include defined roles, limited access, protected transfers, access logs, controlled exports, secure archives, backups and incident response. These are implementation examples, not a claim that the statute mandates a particular software product or encryption configuration. [3]

Section 21 addresses accountability for personal information under the controller’s control or custody, including information transferred to third parties for processing. A contractor or hosted system does not remove that accountability. Establish authorized processing, security obligations, permitted use, access termination and return or disposal arrangements. Confidentiality duties for staff and agents under section 20 continue after employment or contractual relations end. [3]

A mistaken email containing detailed property records requires containment and assessment under the applicable incident rules. Preserve facts and access evidence, restrict further disclosure, inform the responsible privacy and security functions and evaluate required notifications. Avoid inventing a universal reporting deadline or declaring every misdirected file automatically exempt from notification. The relevant law, current implementing rules and incident facts govern that determination.

Retention must reflect the lawful purpose, applicable records duties and legal claims. Neither indefinite retention of every personal field nor immediate deletion of all supporting deeds is a sound universal answer. A valuation workfile needs a defensible evidence trail, while personal-information retention must remain justified. Align the record schedule and access controls with both requirements instead of treating them as mutually exclusive.

15 Recognize statutory accountability without prejudging liability

Act section 26 identifies violations by government officials and employees, including unjustified failures to provide required data, failures to comply with valuation standards or concealment of departures, and specified failures or refusals concerning SMV and general-revision duties. Its stated sanctions include a fine equivalent to one to six months of basic salary, suspension for not more than one year, or both, alongside other applicable penalties. IRR section 50 reproduces the framework. [1, 2]

Act section 27 and IRR section 51 address unauthorized processing, access, disposal, disclosure, sharing, publication or use of RPIS data under the Data Privacy Act, the Cybercrime Prevention Act and other relevant laws. Section 28 and IRR section 52 address other violations under applicable law. A staff member's legitimate original access does not automatically legalize a later unauthorized disclosure; the challenged action and purpose still matter.

Do not declare a person convicted from a delayed report or an incomplete upload log alone. Identify the duty, actor, trigger, required act, actual conduct and relevant justification or other elements. An administrative finding, criminal determination and technical correction can involve distinct procedures. The exam habit is to recognize the applicable accountability provision and the factual issue, not to impose a penalty without the necessary basis.

Act section 25 and IRR section 49 also govern assessor appointments within civil-service and professional requirements. That institutional context matters because data and valuation duties require competent responsible officers. A new database does not transfer the statutory assessor function to an unqualified operator. The analyst should identify who prepares, verifies, approves, administers access and responds to errors, even when many tasks use the same software.

16 Produce a dated transition and governance conclusion

A complete original conclusion contains three separately supported findings. First, name the operative or transitional valuation regime for the supplied date and explain the status evidence. Second, identify any qualifying cap or arrears relief, its baseline or covered additions, period, exclusions and calculation. Third, state whether the requested information use has an applicable authority, necessary scope and safeguards. A single word such as approved or exempt cannot answer all three.

The law-to-IRR crosswalk below links database development and access in Act section 22 with IRR section 46; Register of Deeds supply in Act section 23 with IRR section 47; electronic transmission in Act section 24 with IRR section 48; appointments in Act section 25 with IRR section 49; accountability in Act sections 26–28 with IRR sections 50–52; transition and cap in Act section 29 with IRR sections 53–55; amnesty in Act section 30 with IRR section 56; and saving context in Act section 31 with IRR section 57. [1, 2]

Subject	Act	IRR
RPIS development access and automation	22	46
Register of Deeds supply	23	47
Electronic transaction transmission	24	48
Assessor appointments	25	49
Accountability and violations	26–28	50–52
Transition and first-year cap	29	53–55
Arrears amnesty	30	56
Saving framework context	31	57

Separate the original rules from later developments in your notes. The original statutory window and the original six-percent first-year rule are the source-specific rules tested here. The checked House records show pending proposals affecting those subjects. A later controlling measure must be evaluated on its enacted terms, scope and effective date. The numeric questions deliberately stipulate eligibility and a comparable baseline instead of resolving the Act-to-IRR baseline wording by implication.

Carry these habits into Lesson 23 on inspection, valuation research and workfiles. A strong workfile preserves the correct legal regime, reliable transaction facts, reproducible computations and lawful information handling. The valuation conclusion is strengthened when another competent reviewer can trace the evidence, identify the governing date and understand why a field was included, corrected, restricted or disclosed.

17 Ten worked transition and governance cases

Attempt the question first. Every calculation uses the eligibility and baseline assumptions supplied. Distinguish evidence gaps from proven ineligibility and identify the controlling source for each conclusion.

Case 1 Choose the transitional amount

Question: A stipulated transition file has existing SMV amount PHP 3.6m, applicable zonal amount PHP 4.2m, consideration PHP 4m and proposed new-SMV amount PHP 5m. The proposal is not operative. Select the amount under the supplied transitional rule.

Solution: Select PHP 4.2m, the highest applicable transition input. Exclude the nonoperative proposal from that comparison.

Reasoning: Act 29 and IRR 54 compare existing SMV zonal and consideration amounts when the stated transition conditions apply. Status comes before magnitude.

Case 2 Choose the operative comparison

Question: A later sale is stipulated governed by Act 18(a)(3). The operative SMV amount is PHP 5m and gross selling consideration PHP 5.3m. What amount is selected and what remains unresolved?

Solution: Select PHP 5.3m. The applicable tax rate transaction character exemptions and other current tax rules remain separate questions.

Reasoning: The supplied operative-regime comparison selects the higher amount. It is not a complete internal-revenue tax computation.

Case 3 Apply the component cap

Question: Eligibility is stipulated and the positive baseline is identical under both source-date descriptions. Basic RPT baseline PHP 10,000, SEF PHP 10,000 and idle land PHP 4,000; new raw amounts PHP 14,000, PHP 13,000 and PHP 3,000. Compute the first-year teaching result.

Solution: Ceilings are PHP 10,600, PHP 10,600 and PHP 4,240. Component results are PHP 10,600, PHP 10,600 and PHP 3,000; total PHP 24,200.

Reasoning: Act 29 and IRR 55 apply the cap by tax type. A lower raw component does not have to rise to its ceiling. No other adjustment is supplied.

Case 4 Reject an aggregate shortcut

Question: Eligible comparable basic and SEF baselines are each PHP 10,000. New raw amounts are PHP 8,000 and PHP 13,000. A reviewer accepts PHP 21,000 because it is below the aggregate PHP 21,200 ceiling. Correct the result.

Solution: Basic remains PHP 8,000; SEF is limited to PHP 10,600; component total is PHP 18,600.

Reasoning: A fall in one tax type does not offset an excess increase in another. The provision specifies each tax type rather than a single aggregate ceiling.

Case 5 Preserve the baseline issue

Question: The statutory pre-Act assessed-tax amount is PHP 8,000; the amount before the first new SMV is PHP 10,000. A spreadsheet silently treats them as identical. What should the reviewer do?

Solution: Record both reference dates and amounts and obtain authoritative guidance on the controlling baseline. The alternative arithmetic ceilings are PHP 8,480 and PHP 10,600, but the spreadsheet cannot choose the legal answer by itself.

Reasoning: Act 29 and IRR 55 describe different baseline dates. The arithmetic exposes the consequence; it does not resolve the legal wording difference.

Case 6 Separate principal from additions

Question: An eligible pre-effectivity account has PHP 120,000 delinquent principal and PHP 42,000 covered additions. Full timely payment and no exclusion are stipulated under the original amnesty. Reconcile the amount.

Solution: The stipulated covered additions of PHP 42,000 are removed; PHP 120,000 principal remains to be paid.

Reasoning: Act 30 and IRR 56 concern penalties surcharges and interest. They do not cancel the entire principal balance.

Case 7 Match the actual exclusion

Question: One property was already disposed of at auction for tax delinquency. Another has a pending ownership case with no tax-delinquency court case stipulated. What can be concluded about the original amnesty exclusions?

Solution: The auction-disposed property meets an express exclusion. The ownership case alone does not establish the pending tax-delinquency court-case exclusion; other eligibility facts still need checking.

Reasoning: Match the specified proceeding and event. An auction notice is not necessarily completed disposal, and every property court case is not a tax-delinquency case.

Case 8 Verify a later deadline

Question: On 12 October 2026 a file presents only the original IRR and a pending extension bill. Can it establish that the original statutory amnesty is open for a new application?

Solution: No. The original IRR endpoint is 5 July 2026. Seek a controlling enacted extension or other applicable lawful relief and its terms.

Reasoning: A pending proposal is not an enacted change. This conclusion concerns the supplied evidence and does not claim an exhaustive absence of any possible later measure.

Case 9 Distinguish government use from private export

Question: An authorized employee can access detailed records for an official valuation task. The employee exports owner contact details to market a personal brokerage service. Is the original access enough to authorize the export?

Solution: No. Assess the new purpose and disclosure authority separately. Official availability does not itself authorize personal commercial reuse.

Reasoning: Act 22 and the Data Privacy Act preserve access limits lawful purpose proportionality and security. A legitimate original login is not permission for every later use.

Case 10 Review an analytical release

Question: A proposed public file deletes names but retains exact parcel location, unusual sale price, precise date and a unique transaction description. Is it necessarily anonymous?

Solution: No. Those combined attributes can identify or link the record. Review lawful disclosure, aggregation and reidentification risk before release.

Reasoning: Names are only one identifier. Retain a controlled evidence archive and design a purpose-appropriate summary rather than assuming deletion of names removes all privacy risk.

18 Transition relief and data worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for complete calculations. State the source regime, eligibility assumptions and information-purpose limits.

1 Select the regime

For a stipulated transition case compare existing SMV PHP 4.4m, zonal PHP 4.8m and consideration PHP 4.6m; proposed new SMV PHP 5.2m is nonoperative. For a later stipulated operative section 18 case compare approved SMV PHP 5.2m and consideration PHP 5m. State both selected amounts and their distinct regimes.

_____

_____

_____

2 Calculate each cap

Assume established first-year eligibility, unchanged components, identical baselines under both source-date descriptions and no other adjustment. Basic RPT baseline PHP 8,000 with raw new PHP 11,000; SEF baseline PHP 8,000 with raw new PHP 9,000; idle land baseline PHP 2,000 with raw new PHP 1,800. Compute ceilings, component results and total.

_____

_____

_____

3 Keep valuation visible

Supplied new MV PHP 6m, AL 20% and basic levy 1%. Eligible stipulated assessed-tax baseline PHP 9,000, identical under both source-date descriptions. Compute assessed value, raw basic tax and capped teaching amount. Explain why market value is not rewritten to the cap.

_____

_____

_____

4 Reconcile an amnesty account

An eligible original-window account has pre-effectivity principal basic RPT PHP 45,000 and SEF PHP 45,000; covered additions PHP 27,000. Full timely payment and no exclusions are stipulated. State principal, waiver and simplified amount to pay. Identify the original deadline and three exclusions.

_____

_____

_____

Data governance worksheet continued

5 Write a deadline status note

Application date is 12 October 2026. Evidence consists of the original IRR and an official pending-extension bill listing. State what the file establishes and the controlling-law checks still needed.

_____

_____

_____

6 Map the data duties

Distinguish the Register of Deeds quarterly abstract and month-end contract-copy duties to assessors from quarterly electronic transmission to BLGF. Name the specified transmitting actors and the operationalization trigger.

_____

_____

_____

7 Design access for a purpose

A city assessor needs transaction amount date area property category and source reference for an authorized market study. The source archive also contains identity images signatures contact numbers and unrelated private details. Explain archive extract and public-summary controls.

_____

_____

_____

8 Resolve a quality and privacy issue

Two rows contain the same deed and one row labels 0.5 hectare as 0.5 sq m for a PHP 2m land transaction. Compute the correct unit price. Explain duplicate correction provenance restricted access and why a corrected dataset does not automatically become public.

_____

_____

_____

19 Review and examination checks

Distinction	Check before answering
Proposal and operative schedule	Status before selection of higher amount
Transition and operative comparison	Identify the stipulated governing regime
Cap and amnesty	Current increase differs from covered arrears additions
Act and IRR baseline wording	Preserve the reference-date difference
Assessed tax and cash receipt	Use the stipulated legal baseline
Component and aggregate cap	Test every type before adding amounts
Maximum and mandatory increase	A lower raw amount stays lower
Value and relieved tax	Keep market value unchanged by relief arithmetic
Principal and additions	Amnesty does not erase delinquent principal
Original date and extension	Obtain an operative later instrument
Pending case and specified exclusion	Identify a tax-delinquency court case
Access and onward use	Original authorization does not cover every reuse
Consent and legal obligation	Check the applicable lawful basis and limits
Monthly and quarterly duties	Recipient deliverable and trigger differ
Cleansed and public data	Quality correction does not authorize disclosure

Write three separate findings

State the applicable valuation regime and date-specific schedule evidence. Then state any relief conditions, baseline or covered additions and result. Finally state the authority, scope and safeguards for the information use. Identify unresolved records without assuming the missing act never occurred.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical cap items explicitly stipulate eligibility and comparable baselines; deadline items identify the original source rule.

1. A stipulated transition case has existing SMV PHP 3.6m, zonal PHP 4.2m and consideration PHP 4m. A PHP 5m proposal is nonoperative. Which amount is selected under Act section 29?

A. PHP 4.2m

B. PHP 5m

C. PHP 3.6m

D. PHP 4m

2. In a stipulated operative section 18(a)(3) case, approved SMV is PHP 5m and gross selling consideration PHP 5.3m. Which amount is selected?

A. PHP 5m

B. PHP 1.06m

C. PHP 5.15m

D. PHP 5.3m

3. Which supplied record shows only a proposal rather than an operative new schedule?

A. A matching certification with all publication conditions and elapsed period established

B. The assessor’s proposed draft

C. A controlling effectivity document for the matching certified version

D. A file establishing certification publication elapsed period and no superseding measure

4. What does the original first-year six-percent rule limit?

A. The land unit value to 6% of cost

B. The assessment level to 6% in every class

C. The eligible increase in each type of real property tax

D. The purchase price to 6% of the schedule

5. An eligible unchanged basic-RPT component has stipulated assessed-tax baseline PHP 10,000 and raw new tax PHP 14,000. The baseline is identical under both source descriptions. What capped teaching amount results?

A. PHP 14,000

B. PHP 10,600

C. PHP 600

D. PHP 9,400

6. An eligible component has baseline PHP 4,000 and raw new tax PHP 3,000. What follows in the same simplified cap exercise?

A. Raise it to PHP 4,240

B. Apply PHP 240 only

C. Keep PHP 3,000

D. Automatically remove the component

7. Basic and SEF baselines are each PHP 10,000. Raw new amounts are PHP 8,000 and PHP 13,000. Eligibility and comparable baselines are established. What component total results?

A. PHP 18,600

B. PHP 21,200

C. PHP 21,000

D. PHP 20,000

8. Which baseline issue must be preserved when comparing Act section 29 with IRR section 55?

A. Both provisions refer only to cash collected

B. Both use the purchase price as baseline

C. Neither identifies any reference event

D. The Act and IRR describe different pre-effectivity reference dates

9. Which statement about succeeding-year caps reflects the original provision?

A. Every later tax is cancelled

B. Six percent automatically applies nationally forever

C. No local cap can ever be enacted

D. An applicable LGU ordinance may impose a succeeding-year cap

10. What does the original arrears amnesty principally cover?

A. The entire principal and every later tax

B. Qualifying penalties surcharges and interest on covered unpaid property taxes

C. Every national income tax liability

D. Only a discount on market value

11. An eligible original-window account has principal PHP 120,000 and covered additions PHP 42,000. Full timely payment and no other charge are stipulated. What principal remains to pay?

A. PHP 120,000

B. Zero

C. PHP 42,000

D. PHP 162,000

12. Which original amnesty endpoint is identified in IRR section 56?

A. 31 December 2027

B. The first SMV certification anniversary

C. 5 July 2026

D. No endpoint

13. Which property meets an express original amnesty exclusion?

A. One with a licensed appraisal

B. One with only an asking-price advertisement

C. One disposed of at auction to satisfy tax delinquency

D. One with a change in owner contact number

14. A file has only the original IRR and a pending extension bill. Can it establish an open amnesty window on 12 October 2026?

A. No; an operative later measure must be established

B. Yes because filing a bill changes every deadline

C. Yes because all relief is perpetual

D. Yes because a property remains unpaid

15. Under Act section 22, private-sector RPIS access is subject to what?

A. Automatic unrestricted export by any licensed broker

B. The highest transaction price

C. No privacy requirement

D. BLGF guidelines and applicable legal limits

16. Which pair correctly describes Register of Deeds supply to assessors under Act section 23?

A. Annual abstract and daily owner advertising

B. Abstract every three months and registered contract copies at month end

C. No recurring duty

D. Daily abstract and annual contract copies

17. What trigger applies to the specified quarterly electronic transmission to BLGF under Act section 24?

A. A broker’s request for advertising leads

B. Operationalization of the real property transaction database

C. The first private website launch

D. The anniversary of every sale

18. Which statement about lawful processing under the Data Privacy Act is sound?

A. Consent is always the only possible basis

B. Lawful collection removes every disclosure restriction

C. Any government login authorizes personal reuse

D. Legal obligation or necessary public-authority functions can be relevant bases within the law

19. A PHP 2m transaction covers 0.5 hectare. What is the correct unit price in PHP per sq m?

A. PHP 4m

B. PHP 4,000

C. PHP 400

D. PHP 40

20. A contractor processes property information for a controller. Which accountability statement is correct?

A. The controller retains accountability and must address processing and safeguards

B. All contractor exports are automatically public

C. Confidentiality ends when employment ends

D. Outsourcing eliminates controller accountability

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	A	11	A
2	D	12	C
3	B	13	C
4	C	14	A
5	B	15	D
6	C	16	B
7	A	17	B
8	D	18	D
9	D	19	C
10	B	20	A

1. A Select the highest applicable transition input. A nonoperative proposal does not become an operative amount merely because it is larger.

2. D The stipulated operative comparison selects the higher of the approved-SMV amount and consideration. The actual tax calculation needs additional rules and facts.

3. B Preparation of a draft does not complete review certification and effectivity. Lesson 21’s status test precedes selecting the transition regime.

4. C The cap concerns the increase in taxes by type during the stated first-year framework. It is not a market-value discount or a six-percent levy.

5. B Ceiling = 10,000 × 1.06 = PHP 10,600; choose the lower of that ceiling and the supplied raw component. Eligibility and comparable baseline are expressly stipulated.

6. C The ceiling limits an increase; it does not require every lower raw amount to rise to the ceiling.

7. A Basic stays PHP 8,000; SEF is limited to PHP 10,600. Apply the cap separately rather than offsetting the SEF excess against the basic decline.

8. D The Act refers to pre-Act assessed taxes; the IRR describes taxes before the first SMV’s effectivity. A real difference needs authoritative reconciliation rather than silent substitution.

9. D The original rule allows a local ordinance for succeeding-year caps. Actual scope and conditions must be read from the controlling measure.

10. B Act 30 and IRR 56 address specified additions on qualifying pre-effectivity property-tax delinquencies. Principal remains distinct.

Answer explanations continued

11. A The simplified reconciliation waives the covered PHP 42,000 additions and leaves PHP 120,000 principal. It does not forgive the entire balance.

12. C The checked original IRR identifies 5 July 2026. A later extension requires its actual controlling authority and effectivity.

13. C Completed disposal at public auction for tax delinquency is expressly excluded. Do not confuse an auction notice with completed disposal.

14. A The original endpoint is past and a pending bill is not enacted law. This is an evidence conclusion; check any actual controlling later relief.

15. D The statutory framework distinguishes private-sector access from government availability and expressly preserves applicable confidentiality and privacy requirements.

16. B Act 23 and IRR 47 distinguish quarterly abstracts and month-end copies. Quarterly electronic transmission to BLGF is a separate duty.

17. B The specified actors transmit relevant data upon database operationalization under the implementing rules. A statutory target alone does not prove an endpoint is operational.

18. D Section 12 provides bases beyond consent while purpose scope and other requirements remain. Sensitive or privileged information requires the separate applicable conditions.

19. C 0.5 hectare is 5,000 sq m; PHP 2m / 5,000 = PHP 400 per sq m. Unit correction must remain documented in the evidence trail.

20. A Data Privacy Act sections 20–21 preserve safeguards confidentiality and controller accountability, including relevant third-party processing. A contract does not erase the governing duties.

Worksheet model responses

Response 1

Transition selects PHP 4.8m, the highest eligible existing-SMV zonal or consideration input; the nonoperative PHP 5.2m proposal is excluded. Later stipulated operative comparison selects PHP 5.2m over PHP 5m consideration. Use Act 29/IRR 54 for the first and Act 18(a)(3) for the second. Rates transaction character exemptions and current regime evidence are separate checks.

Response 2

Ceilings: PHP 8,480 basic; PHP 8,480 SEF; PHP 2,120 idle land. Results: PHP 8,480 + PHP 8,480 + PHP 1,800 = PHP 18,760. Raw total PHP 21,800 is reduced by PHP 3,040 within this stipulated scope. Apply each tax type separately and keep the lower idle-land amount.

Response 3

Assessed value = 6m × 20% = PHP 1.2m. Raw basic tax = 1.2m × 1% = PHP 12,000. Ceiling = 9,000 × 1.06 = PHP 9,540; teaching capped amount PHP 9,540. Supported MV remains PHP 6m. Relief limits liability within the supplied scope and does not create a different valuation opinion.

Response 4

Principal = PHP 90,000; stipulated waiver = PHP 27,000; simplified principal to pay = PHP 90,000. Original IRR endpoint: 5 July 2026. Exclusions: disposed at public auction to satisfy delinquency; delinquency being paid under a compromise agreement; pending court case for real property tax delinquency. Verify covered periods payments actual status and any controlling later law in a real file.

Response 5

The original IRR window ends 5 July 2026 and the supplied listing establishes a pending proposal. It does not establish an open window on the application date. Obtain the enacted or issued controlling measure, authority scope publication effectivity duration and payment conditions; distinguish other local lawful relief. Do not convert a bill title into an effective extension.

Response 6

Act 23/IRR 47: Register of Deeds supplies assessors an abstract every three months and relevant registered contract copies at month end. Act 24/IRR 48: upon database operationalization Registers of Deeds BIR notaries public building-permit officials and surveying geodetic engineers transmit relevant data electronically to BLGF each quarter under the rules. Retain receipts covered periods counts and exception logs.

Response 7

Keep a lawful protected source archive with defined roles and retention. Provide the authorized analyst only fields necessary for the stated study, with source reference and controlled re-linking where needed. Assess any public summary separately for disclosure authority aggregation unique combinations and reidentification. Legal obligation or public function can be a lawful basis where applicable; it is not unlimited secondary-use permission.

Response 8

0.5 ha = 5,000 sq m; unit price = PHP 2m / 5,000 = PHP 400 per sq m. Reconcile duplicated deed identity, retain raw source and documented correction, and avoid counting the same sale twice. Record version review and impact on outputs. Correctness does not eliminate access restrictions purpose limits or privacy review before public disclosure.

22 Essential terms and calculation review

Transition regime Applicable interim valuation basis established from the controlling law date and status.

Operative SMV Schedule whose certification effectivity and applicability are established.

First-year cap Limit on eligible increases by real property tax type in the stated first-year framework.

Baseline Established comparable reference assessment with its date and source.

Principal arrears Unpaid tax distinct from penalties surcharges and interest.

Amnesty Temporary statutory relief on specified qualifying additions subject to conditions.

Exclusion Specified circumstance placing the property outside the grant.

RPIS BLGF property-information system supporting valuation and administration.

Lawful basis Applicable authority or condition supporting processing within the law.

Proportionality Information scope appropriate to the specified legitimate purpose.

Provenance Traceable source and history of data and corrections.

Reidentification Linking an apparently deidentified record back to a person.

Controller accountability Continuing responsibility for relevant processing including third-party arrangements.

Teaching relationship	Formula or check
Transition comparison	Highest applicable existing SMV zonal or consideration amount
Operative comparison	Higher stipulated approved SMV or gross consideration
Eligible component ceiling	Established comparable assessed-tax baseline × 1.06
Simplified component result	Lower raw component or stipulated ceiling
Components total	Sum separately tested tax-type results
Eligible amnesty reconciliation	Principal retained; covered additions removed
Unit price	Verified transaction amount / consistent area
Deadline evidence	Controlling instrument status scope publication and effectivity

The cap formula is limited to the stipulated positive comparable-baseline exercise. It does not decide zero baselines new improvements changed classifications actual eligibility or disputed reference dates.

23 Sources and preparation status

Bracketed references identify the primary statute, official IRR, Data Privacy Act and official legislative or policy records. Research was reviewed on 12 October 2026. The explanations, Harana scenarios, calculations, worksheets and assessment are original teaching work.

Selected RA 12001 provisions were directly readable. The official 29-page BIR-circularized IRR was obtained. Database, transmission, accountability and transition provisions in IRR sections 46–57 were checked visually on printed pages 22–26; PDF viewer pages are one higher because of the circular front page. The cap baseline wording difference between Act section 29 and IRR section 55 is identified and not silently resolved.

IRR section 56 identifies the original amnesty endpoint as 5 July 2026. Official indexed House committee records show pending proposals affecting RPVARA, including HB10758 on cap and amnesty periods. These records establish proposals rather than an enacted extension. The checked records do not constitute a complete certification of the absence of every possible later measure. Actual applications and 2027 preparation require the current controlling-law and local implementation check.

Cap computations stipulate eligibility, unchanged tax components and the same positive baseline under both source-date descriptions. Amnesty computations stipulate covered pre-effectivity additions, full timely payment and no exclusions. They are limited teaching reconciliations rather than rulings on disputed tax accounts. Privacy examples describe practical controls tied to the statute; a detailed operational policy must also address current implementing guidance and actual system risks.

1 RA 12001 RPVARA

13 June 2024. Principal lesson scope: sections 22–30. Sections 16 18 and 31 provide regime and saving context. Sections 29–30 establish original cap and amnesty rules; read the actual source wording and any later controlling amendment.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

2 Official BIR circularized RPVARA IRR

IRR dated 10 December 2024 attached to RMC 30-2025. Sections 46–48 data; 49 appointments; 50–52 violations; 53–55 transition and cap; 56 amnesty; 57 saving clause. Printed pages 22–26 were visually checked.

https://bir-cdn.bir.gov.ph/BIR/pdf/RMC%20No.%2030-2025v2.pdf

3 RA 10173 Data Privacy Act

15 August 2012. Selected sections 11–13 provide principles and processing criteria; sections 20–21 provide safeguards confidentiality and accountability. Use current implementing requirements for actual access sharing retention and incident decisions.

https://lawphil.net/statutes/repacts/ra2012/ra_10173_2012.html

Official legislative and policy sources continued

4 House Committee on Government Reorganization

Official indexed committee listing reviewed 12 October 2026. HB10758 is identified as a proposal to extend cap and amnesty periods, filed 12 August 2026 and listed pending since 24 August 2026. Other listed RPVARA bills concern amendment or suspension. This is legislative-status evidence not enactment. Direct page retrieval was restricted.

https://www.congress.gov.ph/committees/committee/view/0516

5 PCO suspension proposal context

6 August 2026 official release reports a proposal to Congress for temporary suspension of RPVARA implementation. Used only to distinguish policy proposals from operative changes; official indexed text was readable.

https://pco.gov.ph/news_releases/president-marcos-seeks-temporary-suspension-of-real-property-valuation-implementation-to-protect-businesses-investments/

REALEX

Lesson 23

Inspection Valuation Research and Workfiles

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

A reliable value conclusion needs more than a completed visit and a collection of prices. Plan the investigation around the defined interest and date, verify material facts, and preserve how the evidence supports each input and judgment.

This lesson teaches proportionate inspection, reliability of sale lease and cost records, and traceable workfile construction. It includes an original completed inspection record, comparable evidence log and source-reliability comparison. It follows Lesson 9's assignment definition and Lesson 22's information-governance principles.

All Harana properties, records, values and exercises are fictional original teaching material. The forms are original learning templates rather than prescribed standards forms. The numerical examples isolate area units duplicate records incentives and cost scope; they do not constitute a final appraisal of an actual property.

Your learning goals

- Translate assignment scope into material evidence questions.
- Identify the site separately from the legal interest.
- Record actual inspection method coverage and observations.
- Distinguish valuation inspection evidence and report dates.
- Reconcile area definitions and measurement discrepancies.
- Respond to restricted access with an evidence decision.
- Evaluate reliability for the fact and purpose in question.
- Screen sales asks duplicates and asset packages.
- Analyze stated lease incentives without mislabeling the result.
- Reconcile cost quantities specifications and exclusions.
- Review specialist information within its actual scope.
- Build a traceable secure and reviewable workfile.

Study plan: Allow four to five hours over two sessions. Read sections 1–7 for investigation and sections 8–16 for evidence and documentation. Complete ten worked cases, the two-page worksheet and twenty-question test before checking the answers.

1 Turn an assignment into an evidence plan

An inspection is useful when it answers the questions that matter to the assignment. A photograph of a building frontage may confirm visible access and appearance, but it does not establish every interior condition, legal interest or lease obligation. A large folder of documents likewise does not establish that the relevant facts were checked. Begin with the intended decision, the subject interest, valuation date and required opinion, then identify the evidence needed to support them.

The canonical objectives of this lesson are to plan proportionate inspection and verification, evaluate sale, lease and cost evidence, and create a traceable workfile. The original Harana investigation file uses a fictional commercial property and invented numerical records. Its inspection form, reliability comparison and evidence log are teaching tools rather than prescribed statutory forms or a reproduction of a publisher's material.

The international framework connects investigation with intended use, calls for evaluating important third-party information, and addresses documentation supporting conclusions. The checked 2025 IVS text provides the general foundation; the chapter's detailed workflow and examples are original applications. Philippine professional and information obligations must also be considered. The source notes distinguish adopted standards, a redline reference and a discussion paper. [1–4]

For each material question, record what evidence would answer it, who can supply that evidence, what verification is possible and what happens if it remains unresolved. An uncertain building area may affect comparison, rental analysis and cost calculations. That question deserves more attention than an unrelated decorative feature. The plan should link investigation effort to consequences rather than merely to the number of available documents.

2 Define the questions before entering the site

Reconfirm the client, intended users, use, subject property and interest, value basis, date, currency and actual or assumed condition. A current-market-value assignment for a leased ownership interest requires different evidence from an opinion on a vacant building under an assumed completed condition. The building may look identical during inspection, but the rights, income and premise are different. Carry forward Lesson 9's assignment definition.

Identify the decisions the inspection must support. For the Harana property, the original plan includes matching the building to its records, documenting accessible spaces, checking supplied floor-area information, observing visible condition, investigating actual occupancy and recording material limitations. Legal permissions, structural questions and hidden environmental conditions may require documents or specialists beyond an ordinary valuation inspection.

Prepare access arrangements and record the authorized contact, inspection date, spaces available, relevant documents and any safety or operational restrictions. Do not assume that a property owner's permission covers photographing tenants' private possessions or entering a locked unit. A reasonable inspection plan respects access and personal information while seeking evidence sufficient for the assignment.

The intended work can change after new facts emerge. A suspected addition not shown on the supplied plans, a discrepancy in the lease, or evidence that part of the land lies outside the stated interest can require more investigation. Record the issue and communicate the necessary scope change before treating the original plan as complete. A fixed inspection fee or deadline does not make a material uncertainty disappear.

3 Identify the site and the property interest

Distinguish the physical asset you visit from the interest you value. Record the stated address, parcel or title references, map location, access route and features that help match the site with the supplied documents. A gate sign and a map pin are useful identifiers, but they should not be treated as conclusive evidence of every legal boundary or ownership right.

For the fictional Harana site, a supplied survey describes a 500-square-metre parcel while an advertising sheet describes 600 square metres. Before calculating a unit price or land amount, investigate the source and basis of each figure. The advertisement may refer to a combined site, a rounding error or an additional area not included in the defined interest. Choosing the larger figure because it produces a lower unit price is not verification.

A valuation inspection can document fences, apparent access, buildings and visible occupation. It does not automatically resolve encroachment, easements, title defects or boundary disputes. Obtain relevant current records and appropriate legal or survey assistance where material. Record whether a statement is supplied by the owner, shown in a document or established by the relevant verification work.

Check which rights and assets are included in transaction evidence. An ownership interest subject to a lease differs from a vacant-possession interest. A sale price that includes movable equipment, business rights or another parcel differs from a price for the defined land and building alone. The evidence log should identify those differences before a number is accepted as a comparable input.

4 Observe and record accessible conditions

Use an original inspection record with identifiers, date, participants, weather or other relevant circumstances, access extent, measurements, observations, photographs, documents, discrepancies and follow-up actions. The objective is to preserve what was actually done and found. A ticked box reading inspected should not conceal that only the exterior and one ground-floor room were accessible.

Separate observation from interpretation. An observed damp stain is a visible condition on the inspection date. It may justify further investigation, but it does not by itself establish a structural failure, source of water ingress or a fixed repair cost. A tenant’s statement that flooding occurs each rainy season is supplied information. It needs appropriate corroboration and consideration of its relevance to the date and assignment.

Record material building attributes in useful terms: apparent construction and finishes, accessible floor layout, stated and checked areas, visible maintenance, alterations, services and occupancy. Avoid unsupported precision about age, hidden systems or structural adequacy. A valuer may recognize an issue and seek competent specialist input without pretending that the ordinary inspection is a complete engineering certification.

Photographs need context. Record a photo reference, location, view, date and the fact it supports. A cropped image of a repaired wall can mislead if the file omits the adjoining damaged area. Preserve useful source images and explain why particular images enter the report. Respect the permitted use, security and privacy of photographs, especially where occupants or private belongings are identifiable. [4]

The original completed inspection record below shows a limited Harana visit on 5 October 2026 for a valuation date of 30 September. The accessible ground floor is observed directly; the locked upper floor remains uninspected. That distinction is preserved in the file and affects the further work needed. The example does not supply a final value opinion merely because the visit occurred.

Original inspection entry	Completed Harana teaching record
File and subject	H23 leased commercial ownership interest at fictional Harana site
Dates	Valuation 30 September 2026 inspection 5 October 2026
Identity check	Match supplied parcel reference location and accessible building
Access extent	Exterior and ground floor accessible upper floor locked
Observation	Ground-floor damp stain photographed as H23 P04
Supplied statement	Owner reports no water problem not independently confirmed
Area issue	Owner claim 400 sq m agreed-convention record 380 sq m
Material limitation	Upper-floor condition not directly observed
Follow-up	Arrange access and seek date-relevant condition evidence
Readiness	Further evidence or appropriate scope decision needed

5 Keep dates and area conventions visible

Distinguish valuation date, inspection date, evidence date and report date. A 5 October observation does not automatically prove the same condition existed on 30 September. For a retrospective opinion, seek contemporaneous photographs, occupancy records, repair dates or other evidence connecting the later observation with the valuation date. State the inference and its support rather than silently moving the opinion date.

Measurement has its own definitions. Gross building area, usable area, leasable area and land area can describe different quantities. Before comparing prices or rents per square metre, establish the relevant measurement convention and included spaces. A plan labeled floor area may not include a veranda or shared circulation in the same way as a marketing brochure.

In an original area check, the owner reports 400 square metres of building area while a supplied measurement record under the agreed convention indicates 380 square metres. The difference is twenty square metres, or five percent of the supplied 400-square-metre claim. At an illustrative PHP 300 monthly rent per square metre, the quantities imply PHP 120,000 and PHP 114,000 monthly amounts. The PHP 6,000 difference shows why the area definition matters; it does not establish market rent or actual occupied income.

Conversions must be explicit. A half-hectare land parcel is 5,000 square metres. A PHP 2 million transaction for that area gives PHP 400 per square metre before any other issue is considered. Writing 0.5 in a column headed square metres would produce a unit amount of PHP 4 million and a ten-thousandfold error. Verification includes units, not just documents bearing an official stamp.

6 Respond to restrictions with an evidence decision

Exterior-only, selected-room, remote-video and full accessible inspections yield different evidence. Record the actual method and coverage. A live video walkthrough may show an interior that a roadside visit cannot, but

camera direction, connection quality, identity, timing and inaccessible areas still matter. It should not be relabeled as a personally conducted full physical inspection.

The IVSC's inspection Perspectives Paper discusses physical and technology-based methods. It is a discussion and guidance resource, not a replacement for the applicable standards or proof that any remote method is sufficient for every assignment. Select the evidence method for the question and risk, and explain its limitations. [3]

For a locked upper floor material to rental and condition analysis, possible responses include arranging access, obtaining independent relevant records, seeking suitable specialist evidence, revising the scope or considering whether the requested opinion remains supportable. An owner's statement that everything is fine does not automatically answer the gap. Nor does a disclaimer transform an unsupported material input into established evidence.

Distinguish a limitation from an assumption. The inability to inspect a room describes work not performed. A premise about its condition describes what the analysis assumes. Both may need to be explained, and the premise may require additional support or classification. An assumption that a visibly unfinished building is completed changes the actual condition and must remain distinct from the actual-condition analysis.

Assess consequences for the conclusion. If alternative evidence addresses the important issue adequately, record how. If the gap remains material, communicate the resulting limitation and consider revised work or whether an opinion should be withheld. Do not state compliance with a framework solely because the client accepted restricted access; the adequacy of the work remains a substantive question.

7 Evaluate reliability for the particular fact

Reliability belongs to a proposition and its purpose, not to a universal ranking of document names. A registered transaction document can be strong evidence of its recorded terms and date while leaving side arrangements, included assets or market circumstances to investigate. An executed lease can establish contractual rent without proving that its rent equals current market rent. A contractor's quote can explain a cost scope without establishing every project cost.

For the original reliability comparison, distinguish a firsthand observation, documentary information, oral confirmation, analytical inference and assumption. Record the source's relevant knowledge, date, identity, relationship to the transaction and independence where important. Multiple copied advertisements are not multiple independent confirmations of an achieved sale.

Original source type	Can support within its scope	Separate check still needed
Advertisement	Stated asking terms and date	Achieved price identity and status
Recorded sale document	Recorded consideration terms and parties	Included assets side terms and market circumstances
Executed lease	Contractual rent premises and term	Modifications incentives market rent and collections
Scoped contractor quote	Offered work quantity specification and price	Excluded costs date applicability and like-for-like scope
Direct inspection note	Observed accessible condition at visit date	Hidden conditions legal rights and earlier-date facts

Cross-check material assertions using sources that answer the same question. A sale deed, appropriate party confirmation and property description may support a recorded price, included assets and identity. A current plan, a measurement check and relevant area definition may support quantity. The objective is to resolve a material question, not to accumulate unrelated citations that make a folder appear impressive.

An original log can use verified within stated scope, supplied unconfirmed, contradicted or unresolved, and rejected for stated use as working statuses. Those labels are not mandated standards grades or numerical confidence percentages. They describe the work performed and the remaining issue. A status of verified price should not silently become verified title, condition and market comparability.

Working status	Meaning in this original log
Verified within stated scope	Named fact checked through recorded work
Supplied unconfirmed	Information received but material check incomplete
Contradicted or unresolved	Sources differ or evidence is insufficient
Rejected for stated use	Reason documented; retained for review or another purpose

Document contradictions. If a brochure says vacant but an inspection and lease show a tenant, preserve the difference, investigate dates and update the relevant analysis. Do not overwrite the raw brochure and erase the reason the correction was necessary. A reviewer should be able to see why one fact was used and another was not.

8 Screen sale evidence before using a comparable

Establish whether a record is an asking price, an offer, an agreed contract or a completed transaction. The categories provide different evidence. An asking amount may reveal seller expectations or competing supply, but it should not enter an achieved-sale average under a misleading heading. A price reduction in an advertisement is not a completed-sale discount unless the transaction evidence supports that conclusion.

Check property identity, interest, agreement and completion dates, area convention, consideration, included assets, financing terms, party relationship, marketing and unusual circumstances. A sale involving compulsion, a related-party arrangement or a bundle of business assets may require additional analysis before it can inform the defined property market. Investigation can reveal useful evidence without making every observed price a directly comparable unit amount.

The original Harana sale log contains six records. A is a verified-within-scope land sale at PHP 3 million for 500 square metres. B is an asking amount of PHP 3.6 million for 500 square metres. C reproduces A’s same deed and is a duplicate. D is another verified-within-scope land sale at PHP 3.3 million for 550 square metres. E is a verified-within-scope land sale at PHP 2.4 million for 400 square metres. F is a PHP 4 million package including a building whose allocation is unresolved.

ID	Amount PHP	Area sq m	Record type	Summary treatment
A	3,000,000	500	Scoped verified land sale	Retain
B	3,600,000	500	Asking record	Separate supply evidence
C	3,000,000	500	Same deed as A	Duplicate no added sale
D	3,300,000	550	Scoped verified land sale	Retain
E	2,400,000	400	Scoped verified land sale	Retain
F	4,000,000	Not established here	Building-inclusive package	Allocation unresolved

A, D and E each produce PHP 6,000 per square metre under the supplied areas. B produces an asking unit amount of PHP 7,200. C provides no additional transaction and F is not directly divided into a vacant-land comparison without resolving its package scope. The equal unit prices of A, D and E are a diagnostic feature of this invented dataset, not proof of a final market value or a universal unit rate.

Retain rejected and unresolved records with reasons. B may still inform a separate supply discussion, and F may become useful after investigation. Duplicate C should not increase the sample count or the apparent weight of A. Lesson 24 develops comparable selection, supported adjustments and reconciliation; the present task is to ensure that its inputs have truthful identities and traceable checks.

9 Analyze lease terms and incentives

Record the signed lease, parties, premises, interest, commencement, term, rent schedule, payment frequency, escalation, incentives, deposits, expense responsibilities, termination rights and any side arrangements material to the analysis. A one-page rent roll may summarize occupancy but leave the actual terms unclear. Reconcile it with the documents and appropriate confirmations rather than treating every scheduled amount as collected cash.

For the original incentive exercise, a 200-square-metre unit has headline monthly rent of PHP 300 per square metre for a twenty-four-month term. Three months are rent-free; twenty-one payments are otherwise stipulated at the same headline amount. Ignore discounting, escalation, taxes, expense recovery and all other incentives. Headline monthly rent is PHP 60,000; total stipulated payments are PHP 1.26 million; an undiscounted average across the term is PHP 52,500 per month or PHP 262.50 per square metre monthly.

Label that result as an undiscounted incentive-adjusted teaching average. It is not automatically market rent, net operating income or a present-value-equivalent rent. A formal comparison may require the timing of payments, other lease terms, discounting and market evidence. Preserve both the contractual headline and the analytical result so the adjustment can be understood.

A security deposit is also not automatically rental income. Identify its terms and accounting or cash-flow role before placing it in an income series. Likewise, billed rent, received rent and market rent answer different questions. A tenant’s arrears may affect cash expectations without changing the written nominal rate, and a written nominal rate may differ from the amount a current market participant would agree.

10 Examine cost evidence by scope and date

A cost record needs quantity, specification, date, location, inclusions, exclusions, procurement circumstances and price basis. Historical expenditure, a current contractor quote, an approved budget and a replacement-cost indication are different measures. A development cost engineer can provide important cost evidence, but its use in valuation still requires identifying the question the cost answers.

The original Harana quote is PHP 12 million for 600 square metres of specified building work, equivalent to PHP 20,000 per square metre within that supplied scope. It excludes professional fees, permits, external works, land, financing and taxes. That subtotal should not be labeled total development cost or full property market value. Another quote at PHP 18,000 per square metre is not necessarily cheaper on a like-for-like basis if it omits different work.

Reconcile quantities and specification before comparing totals. A quote for 600 square metres using one definition cannot be transferred directly to a building with 380 square metres under another definition. A renovation bill may include repairs and improvements whose contribution differs from their cost. Historical spending can support a record of what occurred, but it does not establish the present price of rebuilding or the amount a buyer would pay for the property.

For a purely arithmetic scope reconciliation, supplied building work of PHP 12 million plus professional fees of PHP 1.2 million, permits of PHP 200,000 and external works of PHP 800,000 gives PHP 14.2 million. The exercise stipulates no overlaps among those items. Land, financing, tax treatment and other costs remain unresolved. The subtotal is a defined cost package, not a completed property valuation.

11 Use specialist evidence with a defined role

Some important questions require competence beyond the ordinary valuation inspection. Structural integrity, environmental conditions, boundaries and complex building systems may require relevant engineers, environmental specialists, surveyors or legal professionals. Identify the question, the specialist’s competence and the evidence needed instead of requesting a generic opinion that does not address the material uncertainty.

Review what the specialist actually did, the date, subject, assumptions, methods, limitations and conclusions. A report on a neighbouring property does not automatically establish the condition of the subject. A dated structural assessment might require an update after a significant alteration. A specialist’s conclusion can be relevant while still being narrower than the proposition the valuation needs.

Distinguish use of a specialist from transfer of the entire valuation responsibility. The valuation file should explain how the specialist’s information enters the analysis and what remains unresolved. Check conflicts and instructions where material. A report prepared for a different purpose or recipient may need clarification before reliance, even if the author has impressive credentials.

Do not invent a repair cost, remaining life or discount merely because an observed issue needs a numerical input. Seek evidence or identify the uncertainty and its consequence. Sensitivity analysis can show how supplied alternative inputs affect an illustration, but it cannot manufacture the factual probability or technical diagnosis missing from the file.

12 Maintain an evidence register and decision trail

The original register assigns each source an ID, description, provider, source date, receipt date, property reference, fact supported, checks, status, limitation and use in the model or report. A source ID connects the

claim to the retained record. A file named final_final2.pdf without a register does not tell a reviewer which version supported the issued opinion.

Original register field	What it establishes
Source ID and retained record	Connection between claim and source
Provider source date and receipt	Origin currency and acquisition history
Property and interest	Which asset and rights the record concerns
Fact supported and checks	Exact proposition and performed verification
Status and limitation	What remains unresolved
Model and report reference	Where information was used
Review and correction history	Who checked the treatment and what changed

Distinguish raw records from working extracts and conclusions. Preserve an original sale document under controlled access; create an analytical row with selected facts and units; then document any adjustment, assumption or exclusion in the working analysis. Do not overwrite the original consideration with the adjusted amount and later present that amount as the recorded transaction price.

Use a decision log for significant judgment. State the issue, alternatives, evidence, selected treatment, reason and impact. An original entry might reject the building-inclusive package from the vacant-land dataset until allocation is established. Another might retain an asking record in a supply appendix but exclude it from the achieved-sale summary. The reasons help a reviewer evaluate judgment rather than merely reproduce a spreadsheet.

An unresolved issue register should have an owner, requested evidence, due date or review point, materiality and intended response. Administrative closure is not technical resolution. If a document never arrives, the file should record the consequence for the assignment rather than marking complete because the report deadline passed.

13 Organize a workfile that supports the conclusion

The report communicates the opinion and material reasoning to its intended users. The workfile preserves the supporting record, including work not reproduced in full in the report. A concise report can have a substantial workfile, and a long report can still have weak support. The criterion is whether the evidence and decisions can be traced, not whether the printed report reaches a particular page count.

An original workfile index contains engagement and scope records, property and interest information, inspection materials, market evidence, lease and cost records, specialist inputs, calculations, judgment and assumption logs, review records, communications and the issued report. Tailor it to the assignment. It is an organizational template, not a claim that these exact folder names are required by IVS, PVS or Philippine law.

Original workfile group	Examples of retained support
01 Assignment	Engagement scope and changes
02 Property and inspection	Interest records plans notes photos and access limits
03 Market evidence	Sales asks leases and source verification
04 Cost and specialists	Scoped quotes quantities technical reports
05 Analysis and judgment	Models assumptions decisions and exclusions
06 Review and communications	Checks material issues and responses
07 Issued record	Report and supporting version plus later corrections

Link each significant model input to evidence or a clearly identified assumption. A rent cell should identify the lease or market evidence and any normalization. An area input should identify the measurement convention and record. A cost subtotal should link to its quantity and specification. A final reconciliation should explain why the chosen evidence and approaches are relevant to the defined interest and date.

Retain the issued report and the calculation version supporting it. Later updates should not erase the earlier issued basis. Record correction dates, changes and revised outputs. A reviewer should be able to distinguish a factual correction discovered after issue from an assumption that was knowingly used in the original assignment.

14 Check computations without confusing precision with proof

Verification includes arithmetic, units, formulas, filters, duplicate handling and links to the underlying records. A spreadsheet can multiply correctly while using the wrong area, record type or interest. Review both the mathematics and the meaning of each input. A decimal-rich unit price computed from an unverified advertisement is not more reliable simply because the formula is correct.

Reproduce important calculations independently within the same defined scope. The Harana land-price check should recover PHP 6,000 per square metre for A, D and E, count three separate transactions, and preserve B as an asking record. The lease check should reproduce twenty-one stipulated payments and the undiscounted average. The cost reconciliation should prevent overlapping quote exclusions from being added twice.

Sensitivity analysis is useful when the uncertainty is material and relevant. If a supplied monthly rent per square metre ranges from PHP 280 to PHP 320 for 380 square metres, the illustrative monthly range is PHP 106,400 to PHP 121,600. The endpoints are supplied scenarios, not evidence of their probability or a complete rental conclusion. Explain which input changes and why that range is examined.

Check whether a change is a percentage or a percentage-point movement, whether rent is monthly or annual, whether a price is per hectare or per square metre, and whether a cost is gross or net of the stated items. Such checks protect interpretation as well as arithmetic. Record review findings and their resolution rather than signing a checklist without substantive work.

15 Protect the workfile and communicate limitations

Apply the lawful-purpose, access, security and retention principles developed in Lesson 22. Source documents may include personal information, signatures, identifiers and private commercial terms. A valuation need does not authorize unrestricted sharing of every source record. Use appropriate permissions and controlled extracts while preserving a defensible evidence trail. [4]

Define access for the preparer, reviewer, specialists and permitted recipients according to the task. A reviewer may need source details that do not belong in a public example. The report's intended-user restrictions and the workfile's access controls should be coherent. Deleting names from a document may not remove identification through precise location, date or other unique attributes.

Retention must follow the applicable professional, legal, contractual and organizational requirements. This lesson does not import a foreign five-year or seven-year rule as a universal Philippine workfile period. Identify the governing requirement and preserve records required for legitimate claims or review, while justifying personal-information retention and safeguards. A storage subscription is not a retention policy.

Describe limitations specifically. State which space was inaccessible, which record was supplied without confirmation, which date a fact concerns, what alternative evidence was considered and the effect on the analysis. A broad phrase such as all information assumed correct gives the reader little help and does not cure a material evidentiary failure.

16 Write an evidence-based readiness conclusion

A readiness conclusion should say whether the work supports proceeding to the requested opinion, whether more evidence or specialist work is needed, or whether the scope and resulting deliverable must change. Support that conclusion with the material issue register and the performed work. Do not confuse completion of a visit with completion of the valuation assignment.

The original Harana file demonstrates an important mixed result. Site identity and three supplied land-sale records are investigated within their stated scope, a lease incentive computation is reproducible, and the cost quote exclusions are identified. The upper floor remains uninspected and its condition remains material. The file therefore needs the stated further work or an appropriate scope decision before presenting an unrestricted actual-condition opinion.

The checked international references relevant to this lesson are IVS 101 on scope, IVS 104 on data and inputs, IVS 106 on documentation, and IVS 400 on real-property investigation. The source copy is the IVSC-authored 2025 redline hosted by ICAEW; selected current text was checked visually so deleted wording is not mistaken for a current requirement. A future exposure draft is not treated as an adopted standard. Exact Philippine standards requirements must be checked in the applicable national edition. [1, 2]

Lesson 24 develops the sales comparison approach. Carry forward the original evidence log and screened data. A supported adjustment grid begins with reliable transaction identity, consistent units, appropriate rights and dates, and recorded judgment. A useful workfile lets another competent reviewer understand not only which number was used, but why it was considered suitable and what uncertainty remains.

17 Ten worked inspection and evidence cases

Attempt each question before the solution. Dates records and numerical assumptions are fictional. Distinguish observation supplied information inference assumptions and the evidence still needed.

Case 1 Separate the dates

Question: A valuation is dated 30 September 2026. Inspection occurs on 5 October, when a wall is visibly damaged. Can that observation alone prove the same damage existed on the valuation date?

Solution: No. Obtain relevant contemporaneous evidence or other support connecting the condition to 30 September and document the inference.

Reasoning: Inspection and valuation dates are distinct. A later fact cannot silently be treated as a proved earlier condition.

Case 2 Record the inaccessible floor

Question: The exterior and ground floor were inspected. The material upper floor was locked. The owner says it is in perfect condition. What belongs in the record?

Solution: Record actual access, the uninspected space, the supplied owner statement, material uncertainty and the further evidence or scope action needed.

Reasoning: A client statement is not the same as direct observation. Restricted access requires an evidence decision, not relabeling the visit as full inspection.

Case 3 Reconcile the area

Question: The supplied owner area is 400 sq m; a checked measurement under the agreed convention is 380 sq m. At a stipulated PHP 300 monthly rent per sq m, compare the illustrative amounts.

Solution: PHP 120,000 versus PHP 114,000 monthly; difference PHP 6,000. Area difference is 20 sq m or 5% of the 400-sq-m claim.

Reasoning: Investigate the measurement conventions and discrepancy. The computation shows sensitivity to quantity rather than establishing market rent.

Case 4 Screen sale records

Question: A is a scoped verified land sale PHP 3m/500 sq m. B is an ask PHP 3.6m/500. C repeats A's deed. D is a scoped verified sale PHP 3.3m/550. E is a scoped verified sale PHP 2.4m/400. F is a building-inclusive package with unresolved allocation. Which records enter the stipulated achieved-land-sale summary?

Solution: A D and E: three separate transactions, each PHP 6,000 per sq m. B remains an asking record, C is a duplicate, and F needs scope resolution.

Reasoning: Truthful record identities precede adjustments. Equal unit results in fictional data do not independently establish the subject's final value.

Case 5 Do not verify every fact from one document

Question: A transaction document establishes a recorded amount. An analyst labels the entire row price title condition area and market circumstances verified. What is wrong?

Solution: The verification claim exceeds the checked proposition. Record precisely which terms and facts were checked and investigate the remaining issues.

Reasoning: Reliability and confirmation are purpose- and fact-specific. One useful document does not prove every attribute of a transaction.

Case 6 Normalize a supplied lease incentive

Question: A 200-sq-m unit has PHP 300 per sq m monthly headline rent for 24 months with 3 free months and 21 equal payments. Ignore all other terms and discounting. Compute the undiscounted term average.

Solution: Headline monthly rent PHP 60,000; payments PHP 1.26m; average PHP 52,500 monthly or PHP 262.50 per sq m monthly.

Reasoning: Label the result an undiscounted incentive-adjusted teaching average. It is not automatically market rent net income or present-value-equivalent rent.

Case 7 Read quote exclusions

Question: A PHP 12m quote covers 600 sq m of stated building work but excludes land professional fees permits external works financing and taxes. What unit figure is supportable and what label is inappropriate?

Solution: PHP 20,000 per sq m within the supplied quote scope is supportable. Full development cost or complete property market value is not established.

Reasoning: A cost subtotal retains its scope. Comparable quantities and inclusions must be established before transferring or comparing it.

Case 8 Reconcile supplied cost items

Question: Building work PHP 12m, professional fees PHP 1.2m, permits PHP 200,000 and external works PHP 800,000 are stipulated nonoverlapping. Compute the defined subtotal.

Solution: PHP 14.2m. Land financing taxes and any other omitted items remain unresolved.

Reasoning: The sum is a specified cost package, not a market-value opinion. Investigate overlap before adding real quotations.

Case 9 Keep the issued version traceable

Question: A report was issued using model v3. A later correction creates v4. An analyst deletes v3 because only the newest file is useful. What record is needed?

Solution: Retain the issued report and its supporting v3, document the correction and v4, and explain changed inputs outputs and dates under appropriate access and retention controls.

Reasoning: Later improvements should not erase the basis of an earlier issued opinion. Version control supports review and correction.

Case 10 Decide readiness from material issues

Question: The file has screened sales and reproducible arithmetic but the upper floor’s material condition remains unresolved. Does a completed visit checklist establish readiness for an unrestricted actual-condition opinion?

Solution: No. Resolve the evidence gap or make an appropriate documented scope and deliverable decision.

Reasoning: Administrative completion differs from sufficient evidentiary support. The unresolved material issue must affect the readiness conclusion.

18 Inspection evidence and workfile worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full workings. Record exact facts checked and avoid presenting the numerical exercises as final valuation opinions.

1 Plan an inspection

Prepare an inspection plan for the fictional Harana leased commercial interest dated 30 September 2026, with a 5 October visit. Identify subject rights dates access arrangements material questions required records and specialist triggers.

_____

_____

_____

2 Complete the record

Exterior and ground floor were accessible; upper floor locked. A damp stain was observed; an owner says there is no water problem. Create entries separating observation supplied statement interpretation limitation and follow-up.

_____

_____

_____

3 Build a sale evidence log

Record A PHP 3m/500 sq m completed land sale; B PHP 3.6m/500 ask; C repeats A; D PHP 3.3m/550 completed land sale; E PHP 2.4m/400 completed land sale. Assume A D E are verified within the supplied scope. Calculate unit amounts and explain the achieved-sale count.

_____

_____

_____

4 Compare lease terms

A 150-sq-m unit has PHP 400 per sq m monthly headline rent for 18 months, 2 months free and 16 stipulated equal payments. Ignore discounting and other terms. Compute total payments and undiscounted average monthly rent per unit and per sq m.

_____

_____

_____

Workfile worksheet continued

5 Review cost scope

A quote PHP 9m for 450 sq m excludes PHP 900,000 professional fees and PHP 600,000 external works supplied separately. Assume no overlap. Compute quote unit cost and defined subtotal; name unresolved items and transferability checks.

_____

_____

_____

6 Write a reliability comparison

Compare an advertisement an executed lease a recorded sale document and a current scoped contractor quote. Identify a proposition each can support, a proposition each cannot establish alone and a relevant check.

_____

_____

_____

7 Control the workfile

Set out an index and source-to-input trail for area rent cost and sale records. Describe raw versus working data, assumptions judgment rejected evidence review issued versions and access and retention controls.

_____

_____

_____

8 State readiness and sensitivity

Material upper-floor condition remains unresolved. For a separate stipulated sensitivity exercise, monthly rent inputs range PHP 280–320 per sq m for 380 sq m. Compute the range and explain why those results do not resolve condition or establish final market rent.

_____

_____

_____

19 Review and examination checks

Distinction	What to establish
Visit and assignment	Investigation serves the defined interest and use
Site and legal interest	Physical identity does not prove every right
Valuation and inspection date	Connect later observations to earlier facts
Observed and supplied	Label the source and work performed
Gross and leasable area	Use an identified consistent convention
Limit and assumption	Missing work differs from a premise used
Reliable document and verified fact	Verification is proposition-specific
Ask and achieved sale	Do not relabel advertised amounts
Rows and transactions	Remove duplicate weight
Package and land only	Resolve included assets and allocation
Headline and incentive average	State payment timing and excluded terms
Scoped quote and full cost	Reconcile quantities and exclusions
Specialist and valuer role	Explain how technical evidence is used
Report and workfile	Preserve source input and judgment support
Newest and issued version	Retain the issued basis and later corrections

Write a readiness conclusion

State the defined assignment and material evidence questions. Record the work completed and the limitations. Explain the reliability of selected evidence and how it supports model inputs. Identify unresolved issues and the further evidence or scope decision required before an opinion is issued.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. What should primarily determine an inspection and verification plan?

A. The number of photographs possible

B. The defined interest intended use date and material evidence needs

C. A universal identical checklist for all assignments

D. Only the owner’s preferred conclusion

2. An opinion date is 30 September and inspection date 5 October. What is sound treatment of a later observation?

A. Always move the opinion date silently

B. Treat inspection date and valuation date as synonyms

C. Assume no property can change in five days

D. Seek support connecting the observation to the valuation date

3. The upper floor was locked during inspection. What should the record say?

A. The upper floor was inaccessible with material implications and follow-up identified

B. The upper floor is proven perfect

C. All interiors were inspected

D. The building has no upper floor

4. A damp stain was observed. Which conclusion exceeds that observation alone?

A. A stain was visible on the inspection date

B. A photograph records the affected location

C. Structural failure and its repair cost are conclusively established

D. Further investigation may be needed

5. Which statement about a map pin and gate sign is sound?

A. They prove there are no easements

B. They replace all title and survey checks

C. They assist identification but do not conclusively establish every legal boundary or right

D. They establish the exact interest sold

6. A supplied area is 400 sq m and checked area under the agreed convention 380 sq m. What is the difference as a percentage of the supplied claim?

A. 5%

B. 20%

C. 0.5%

D. 95%

7. PHP 2m is paid for 0.5 hectare in a supplied record. What unit amount is correct?

A. PHP 4m per sq m

B. PHP 4,000 per sq m

C. PHP 40 per sq m

D. PHP 400 per sq m

8. What is the appropriate description of a remote video inspection?

A. Always a full personally conducted physical inspection

B. The actual remote method coverage identity timing and limitations

C. Evidence that all concealed defects were checked

D. Automatically a title opinion

9. A registered sale document has been checked for recorded terms. What is the sound verification conclusion?

A. The checked terms are supported within the performed work; other material facts may require investigation

B. All condition title and market facts are proved forever

C. Every advertisement is now a completed sale

D. No corroboration can ever be useful

10. Two database rows repeat the same deed. How many separate transactions do they establish?

A. Two because there are two rows

B. One

C. Three if two brokers also advertise it

D. None even if the deed is valid

11. An ask of PHP 3.6m for 500 sq m produces what amount and label?

A. PHP 6,000 achieved-sale unit price

B. PHP 7,200 final subject market value

C. PHP 3.6m per sq m

D. PHP 7,200 asking amount per sq m

12. A price includes land building and movable equipment with unresolved allocation. What is sound treatment for a vacant-land comparison?

A. Divide the full amount by land area and call it verified vacant-land evidence

B. Always discard every record permanently

C. Investigate included assets and allocation before direct use

D. Assume the building and equipment are worthless

13. A 200-sq-m unit at PHP 300 per sq m monthly has 21 payments over a 24-month term. What undiscounted average monthly amount results?

A. PHP 262.50 for the whole unit

B. PHP 60,000

C. PHP 1.26m

D. PHP 52,500

14. Why is that undiscounted lease average not automatically market rent?

A. It is a calculation on specified contract terms without completing market and other-term analysis

B. All leases are irrelevant

C. Rent-free periods never matter

D. A calculator cannot divide payments

15. A PHP 12m scoped quote covers 600 sq m. What unit cost is established within that scope?

A. PHP 12m per sq m

B. PHP 20,000 per sq m

C. PHP 2,000 per sq m

D. PHP 200,000 per sq m

16. Which statement about a quote excluding land fees and external works is sound?

A. It automatically equals full property market value

B. Every excluded item must be zero

C. It is a defined subtotal requiring scope reconciliation

D. The quote necessarily equals historical cost

17. What should be done with a material specialist report?

A. Treat any report on a neighbour as a subject inspection

B. Accept every conclusion regardless of subject

C. Review its competence subject date assumptions limitations and relevance to the required question

D. Remove it from the evidence register

18. Why retain rejected comparable records and their reasons?

A. To make the selection and judgment traceable

B. To count all rejected rows as achieved sales

C. To hide the source price permanently

D. To avoid explaining the selected evidence

19. A later model corrects an issued-report input. Which version-control treatment is sound?

A. Delete the issued supporting model

B. Retain the issued basis and document the later correction and results

C. Replace the issued report silently

D. Backdate the corrected model without explanation

20. Which statement about workfile retention is sound for this Philippine lesson?

A. Five years is automatically a universal national rule

B. Seven years applies to every assignment without checking

C. All source documents should be deleted when the report is sent

D. Identify applicable professional legal contractual and organizational requirements with privacy safeguards

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	D
2	D	12	C
3	A	13	D
4	C	14	A
5	C	15	B
6	A	16	C
7	D	17	C
8	B	18	A
9	A	19	B
10	B	20	D

1. B Link the work to the assignment and important unanswered questions. A large volume of records is not sufficient support by itself.

2. D Keep the dates separate and investigate contemporaneous evidence before inferring earlier condition.

3. A Describe actual coverage and the evidentiary consequence. A supplied owner statement is not direct inspection.

4. C Observation alone does not diagnose cause structural adequacy or a fixed repair cost. Appropriate additional work may be required.

5. C Physical identification and legal-interest verification are separate questions. Seek relevant records and competent assistance where material.

6. A 20/400 × 100 = 5%. Establish consistent area definitions before interpreting the discrepancy.

7. D 0.5 hectare equals 5,000 sq m; 2m/5,000 = PHP 400 per sq m.

8. B Technology can provide useful evidence but its method and actual limits should remain visible.

9. A Verification belongs to the proposition and scope. One document should not be treated as proving every transaction attribute.

10. B Duplicate entries do not create additional independent transactions. Preserve the correction trail and prevent inflated sample weight.

Answer explanations continued

11. D Divide the asking amount by the stated area and preserve its asking status. The arithmetic does not convert it into achieved consideration.

12. C The package scope differs from vacant land. Further investigation may make the record useful; unsupported direct division is inadequate.

13. D Monthly headline = PHP 60,000; total PHP 1.26m / 24 = PHP 52,500. This is an explicitly limited term average.

14. A Label the measure accurately. Market evidence timing and relevant lease differences require separate evaluation.

15. B 12m/600 = PHP 20,000 per sq m. Its inclusions and exclusions still govern interpretation and transferability.

16. C Cost evidence must retain its measure date quantities and inclusions. A scoped subtotal is not a complete valuation.

17. C A specialist's work may be relevant but narrower than the valuation question. Explain how it informs the analysis.

18. A The file should show why a record was excluded deferred or used for another purpose rather than erase the selection history.

19. B Preserve the earlier issued basis and distinguish later changes. Version control supports review and appropriate correction.

20. D Do not import a foreign rule without authority. Retention and access should fit the governing duties and lawful purpose.

Worksheet model responses

Response 1

Define the leased interest intended use users basis currency valuation date and actual condition. Plan identification access to all material spaces area checks occupancy and lease review visible condition evidence and property records. Distinguish 5 October observations from 30 September facts; obtain contemporaneous support. Define triggers for survey structural environmental or legal specialist assistance and document any necessary scope change.

Response 2

Observation: visible damp stain in the accessible ground-floor location on 5 October with photo reference. Supplied statement: owner reports no water problem. Interpretation: cause and severity remain unresolved. Limitation: upper floor inaccessible. Follow-up: obtain relevant records access or competent specialist evidence and assess the effect on the assignment. Do not diagnose a structural defect or infer the earlier condition from the stain alone.

Response 3

A PHP 6,000 per sq m; B PHP 7,200 asking per sq m; C duplicates A and provides no separate sale; D PHP 6,000; E PHP 6,000. Three distinct scoped verified achieved sales enter the stipulated summary. Preserve B separately as asking evidence and C in the duplicate-resolution trail. Screening does not complete comparability analysis or a final valuation.

Response 4

Headline monthly rent = 150 × 400 = PHP 60,000. Payments = 16 × 60,000 = PHP 960,000. Average across 18 months = PHP 53,333.33 per month; per sq m = PHP 355.56 monthly, rounded. This undiscounted incentive-adjusted teaching average excludes timing discounting expense recoveries escalation and other incentives and does not itself establish market rent.

Response 5

Quote unit amount = 9m/450 = PHP 20,000 per sq m. Defined subtotal = 9m + 900,000 + 600,000 = PHP 10.5m. Check land permits financing taxes specification date location quantities area definition and other inclusions or exclusions. No overlap is stipulated; real quotes require reconciliation. The subtotal is not full property market value.

Response 6

Advertisement supports stated asking terms at a documented date, not achieved consideration; verify identity status and date. Executed lease supports recorded contractual terms, not automatically current market rent or collections; verify premises incentives and modifications. Sale document supports recorded terms, not every side arrangement or condition; verify assets rights parties and market circumstances. Quote supports a scoped cost offer, not full development cost or property value; reconcile quantity specification exclusions and date.

Response 7

Index engagement property inspection evidence lease cost specialists calculations judgments review communications and issued report. Link area to measurement convention and record; rent to lease or market source and normalization; cost to scope quantities and exclusions; sales to identity dates and checks. Retain raw records controlled extracts corrections assumptions excluded data and reasons. Preserve the issued model version and later changes. Define lawful access and the actual governing retention requirement.

Response 8

380 × 280 = PHP 106,400 monthly; 380 × 320 = PHP 121,600 monthly. These are supplied input scenarios, not probabilities or proved market rent. The material condition gap still requires further evidence or appropriate scope action. A numerical sensitivity does not replace the missing diagnosis or establish readiness for an unrestricted opinion.

22 Essential terms and calculation review

Inspection record Dated record of actual access observations methods and limits.

Evidence log Source-specific record of facts checks status and intended use.

Corroboration Relevant additional evidence addressing a material assertion.

Asking record Advertised amount distinct from achieved consideration.

Duplicate Repeated record of the same transaction rather than independent evidence.

Area convention Definition of the quantity measured or compared.

Lease incentive Term affecting the economic payment pattern.

Scoped quote Cost offer limited to stated specification quantities and inclusions.

Assumption log Record of premises their basis and consequences.

Decision trail Evidence and reasons for selection adjustment rejection or further work.

Workfile Controlled supporting record for the valuation and its conclusions.

Issued basis Report and analysis version underlying the communicated opinion.

Teaching relationship	Formula or check
Sale or asking unit amount	Labeled amount / correct area
Area discrepancy percentage	Difference / stated reference area × 100
Hectares to square metres	Hectares × 10,000
Undiscounted lease average	Total stipulated payments / full term
Average rent per area	Average periodic rent / consistent area
Quote unit cost	Scoped quotation / corresponding quantity
Defined cost package	Nonoverlapping supplied items summed
Readiness	Material evidence sufficiency and remaining scope action

These calculations do not establish final market value market rent complete development cost or evidence adequacy. Preserve source identity scope dates units and judgment.

23 Sources and preparation status

Research was reviewed on 12 October 2026. The explanations, original Harana records, inspection and evidence templates, calculations, cases and questions are newly authored educational material. Numerical amounts are supplied assumptions and no actual property conclusion is made.

The IVSC-authored redline effective 31 January 2025 was obtained from ICAEW's hosted copy. Selected text in IVS 101, 104, 106 and 400 was visually checked, including deletion marks, so former text is not treated as current. The source is an international redline reference rather than a full national PVS audit. A future exposure draft was not treated as adopted requirements.

The IVSC inspection Perspectives Paper is a discussion resource. It supports consideration of inspection methods, without establishing a universal permission for remote-only work. Exact compliance, report content and retention obligations require the applicable standards, national rules and assignment context. The original folder structure and verification statuses are practical teaching tools.

The Data Privacy Act provides the lawful-purpose security and accountability context. Actual source sharing, personal-information retention and incident procedures require current implementing guidance and the governing records obligations. The chapter does not prescribe a universal foreign workfile-retention period.

1 IVSC 2025 redline reference

IVSC-authored standards effective 31 January 2025, hosted by ICAEW. Selected locators: IVS 101 scope; IVS 104 data; IVS 106 documentation; IVS 400 investigation. Printed pages 24 68 75 and 151–153 visually checked.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 IVSC edition announcement

Official announcement identifies the edition effective 31 January 2025 and its architecture. Used for edition and chapter context rather than as a substitute for the full applicable national standards.

https://ivsc.org/new-edition-of-the-international-valuation-standards-ivs-published/

3 IVSC inspection Perspectives Paper introduction

12 June 2024. Official introduction discusses physical and technology-based inspection and identifies the paper as a Perspectives resource. Used for its discussion status and scope.

https://ivsc.org/inspections/

4 RA 10173 Data Privacy Act

15 August 2012. Sections 11–13 and 20–21 provide processing principles safeguards confidentiality and accountability context. Read with current implementing guidance and applicable professional and records duties.

https://lawphil.net/statutes/repacts/ra2012/ra_10173_2012.html

REALEX

Lesson 24

Sales Comparison Approach

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Select transactions that inform the defined subject interest, investigate their differences, and explain supported adjustments before reconciling a value indication. An average of nearby prices does not complete that work.

This lesson develops comparable selection, adjustment direction and units, controlled paired analysis, percentage bases and reconciliation. It follows Lesson 23's evidence file and includes original paired sales, a three-comparable grid, sequential-percentage workings and an explained illustrative weighting.

All Harana properties, prices, premiums, rates and weights are fictional original teaching assumptions. The computations do not prescribe local market adjustments, universal comparable counts or mandatory weighting formulas. The final teaching land indication is limited to the supplied interest and conditions and is not an actual property appraisal.

Your learning goals

- Define the subject interest date and competitive market.
- Screen achieved sales asks packages and duplicate records.
- Select a consistent comparison unit.
- Adjust comparables toward the subject with supported signs.
- Separate rights terms and physical-feature differences.
- Apply simple or compound market-condition conventions.
- Extract differences from controlled paired sales.
- Distinguish sequential and common-base percentages.
- Complete the original Harana adjustment grid.
- Calculate defined gross and net adjustment diagnostics.
- Reconcile indications with explained judgment.
- Investigate divergence and audit the evidence trail.

Study plan: Allow four to five hours in two sessions. Read sections 1–8 for selection and adjustment evidence, then sections 9–16 for calculations and reconciliation. Complete ten worked cases, the two-page worksheet and twenty-question test before checking the answers.

1 Explain what sales comparison estimates

The sales comparison approach develops a value indication by examining relevant transaction evidence and relating it to the subject interest. The task is not simply to average nearby prices. The analyst must establish what sold, when it sold, under what terms, and how the properties and interests differ from the subject. A recorded amount becomes useful through investigation and comparison, not through proximity alone.

Lesson 23 established the inspection and evidence file. This lesson uses that foundation to select comparables, explain supported adjustments and reconcile indications. The canonical objectives are to choose transactions for a defined interest and market, calculate adjustments with consistent direction and units, and explain the consequence of comparability limitations. The Harana datasets, pairs, grid and questions are original fictional teaching material.

The checked international market-approach framework supports comparison of relevant assets, analysis of material differences and explained adjustment support. It also emphasizes relevant observable evidence and investigation of divergent indications. The numerical conventions, datasets and weights developed below are original educational examples, not nationally prescribed adjustment rates or mandatory weighting formulas. Exact Philippine standards and assignment requirements must be checked in the applicable national edition. [1, 2]

A useful opening question is: what would the relevant comparable amount indicate if its important differences were aligned with the defined subject? That question keeps attention on the subject interest, date and condition. A grid is a tool for organizing the answer; it is not an independent source of value evidence.

2 Define the subject and its competitive market

Specify the property interest, valuation date, basis, actual or assumed condition, relevant use and unit of comparison before choosing transactions. Land-only residential comparisons should not silently mix vacant ownership interests, leased commercial buildings and business-inclusive packages. Each can be valuable evidence for a different question, but their amounts do not enter one like-for-like land dataset automatically.

The principal Harana grid values a fictional 500-square-metre serviced residential land interest as of 30 September 2026. It is an interior parcel with standard road access and a moderately irregular shape. The exercise stipulates compatible rights, use, market segment and achieved-sale status for its three selected records. It isolates supplied differences in market conditions, access or corner position, services and shape; no buildings or movable assets are included.

Define the competitive market through the choices available to likely participants. Two properties in the same barangay can serve different markets because of access, permissions, size, risk or utility. A transaction farther away may be more relevant if it competes with the subject and shares the important attributes. Explain why the selected evidence represents the subject’s market rather than applying an arbitrary radius without investigation.

Consider use and permissions alongside physical features. An attractive parcel without the permissions assumed by the comparison may differ materially from a legally usable parcel. A proposed road or rezoning is not the same thing as an existing supported condition at the valuation date. Preserve the relevant legal and factual status instead of allowing an optimistic map label to substitute for verification.

3 Select and screen transaction evidence

Carry forward the evidence log: identity, interest, dates, area, price, included assets, party circumstances, financing and verification. Distinguish asks, offers, agreements and achieved transactions. Remove duplicate

weight without erasing the source trail. A repeated deed advertised by three brokers remains one underlying transaction, not three independent sales proving the same unit value.

Evaluate relevance, recency and reliability together. A recent sale can be unsuitable if it concerns a substantially different right or includes unresolved assets. An older but well-investigated transaction may contribute useful evidence when market-condition differences can be supported. Date alone should not replace the comparison, and an elaborate adjustment should not conceal a fundamentally inappropriate record.

No universal fixed count of three comparables is prescribed by this lesson. The three-record grid is an original teaching choice. An actual assignment needs sufficient relevant evidence for its purpose and market circumstances. Adding weak records to reach a count can reduce the quality of the analysis, while using very little evidence may require further research and a carefully limited conclusion.

Document both inclusion and exclusion. A nearby distressed package sale might remain in the research file but require treatment separate from the principal dataset. A listing may inform current supply rather than achieved-price evidence. A transaction with unresolved financing may be deferred pending confirmation. The report and workfile should explain the material selection decisions.

4 Choose a consistent unit of comparison

A unit expresses the amount in terms relevant to participants: for example, price per square metre of land, price per square metre of a defined building area, or price per unit for a homogeneous asset group. The unit must match the subject and the records. A land unit derived from a building-inclusive sale needs an appropriate allocation before it can be compared directly with vacant land.

In the Harana grid, A sold at PHP 3 million for 500 square metres, B at PHP 3.575 million for 550 square metres, and C at PHP 2.835 million for 450 square metres. The raw land unit prices are PHP 6,000, PHP 6,500 and PHP 6,300 per square metre respectively. The denominator is the stipulated land area under a consistent convention. Those raw figures are starting observations, not subject conclusions.

Comparable	Price PHP	Land area sq m	Raw PHP per sq m
A	3,000,000	500	6,000
B	3,575,000	550	6,500
C	2,835,000	450	6,300

Keep total and unit adjustments separate. A supported total allowance of PHP 100,000 for a 500-square-metre comparable equals PHP 200 per square metre when converted for that record. Do not add PHP 100,000 to a per-square-metre unit price. Conversely, a PHP 200-per-square-metre adjustment on that comparable corresponds to PHP 100,000 total, before any other scope issue.

Size can affect unit price as well as total price. A small retail lot’s unit rate is not automatically transferable to a large tract. If the subject is a large development parcel, using small finished-lot prices may require an entirely different analysis of scope, timing and development rather than a superficial size adjustment. Explain the economic relationship instead of assuming that equal units establish equal comparability.

5 Adjust the comparable toward the subject

In the grid convention used here, the comparable amount is adjusted to indicate the subject-equivalent amount. If the comparable has an inferior value-influencing feature, add its supported difference. If the

comparable has a superior feature, subtract its supported difference. The sign answers the direction of the comparison; the evidence supplies the amount.

For a supplied example, the subject has services while a comparable lacks them. If market evidence supports a PHP 300-per-square-metre difference in that defined market, add PHP 300 to the unserviced comparable. The resulting amount represents the comparable as if aligned with the subject's service characteristic. It does not mean the comparable property itself was revalued or that all unserviced parcels have the same adjustment.

For another supplied example, a comparable has a corner advantage that the interior subject lacks. If the relevant evidence supports a PHP 300-per-square-metre corner premium, subtract PHP 300 from the corner comparable. Do not add the premium merely because corner property is attractive. The question is what its achieved amount indicates for the subject without that advantage.

Describe one difference at a time and identify whether it benefits the comparable relative to the subject. A broad label such as good location can mix access, visibility, flooding and neighbourhood attributes. Where the same economic effect is already captured elsewhere, a second adjustment can double count it. Explain both the feature and the reason it is treated separately.

Comparable relative feature	Supported direction	Subject alignment
Inferior services	Add difference	As if services match subject
Superior corner advantage	Subtract premium	Remove advantage absent from subject
Inferior road access	Add supported difference	Align to subject access
Superior regular shape	Subtract supported advantage	Align to subject shape

6 Normalize transaction terms before feature comparison

Recorded consideration can reflect financing, concessions, bundled assets or unusual circumstances. Investigate whether a price represents the relevant exchange conditions and interest before applying property-feature differences. A contract amount inflated by a stipulated seller concession is not automatically the cash-equivalent starting amount used in a particular exercise.

In an original simplified exercise, a recorded price of PHP 3.1 million includes a seller concession whose price effect is independently stipulated at PHP 100,000. The exercise's normalized amount is PHP 3 million. This is a supplied price-effect adjustment, not a universal instruction to subtract the face amount of every concession. A financing benefit's effect on consideration requires appropriate evidence and analysis.

Likewise, a sale containing land and separately valued movable equipment may require a supported exclusion before a real-property comparison. A package's equipment cost is not necessarily its allocated price contribution. Do not use an unsupported allocation merely to make the sale look comparable. The retained source should show the recorded consideration, established adjustment and resulting normalized amount.

Keep rights and transaction circumstances distinct from physical features. A leased ownership interest can carry contract benefits or disadvantages that a vacant interest lacks. Related-party or compelled circumstances may affect the evidentiary use of the price. No fixed ten-percent discount automatically transforms every such transaction into market evidence.

The sequence used in the worked grid is explicit: compatible transaction and interest scope are stipulated first, market-condition percentages are applied to raw unit amounts, and the supplied physical differences are then added or subtracted in PHP per square metre. An actual model must choose a supported sequence and base appropriate to its data; this teaching order is not presented as a universal statutory algorithm.

7 Relate the sale date to market conditions

Market-condition adjustment asks how the relevant exchange amount changes between the evidence date and valuation date, holding the pertinent characteristics appropriately controlled. It is not a payment for the age of a document. Rising, falling or stable market conditions require evidence from the defined market; the calendar alone does not supply a rate.

Under a stipulated rise of five percent between A's sale date and the valuation date, its PHP 6,000 raw unit amount becomes PHP 6,300. If the relevant market had instead fallen five percent, the supplied adjustment would produce PHP 5,700. The sign follows the supported movement from the sale date toward the valuation date. A future-dated transaction would require careful treatment of information availability and the assignment's temporal context.

If a question supplies a simple monthly increase of one percent for six months, its teaching factor is $1 + 0.01 \times 6 = 1.06$. If it specifies compound monthly growth, its factor is 1.01 raised to the sixth power, approximately 1.061520. Applied to PHP 6,000, the results are PHP 6,360 and PHP 6,369.12. State which convention is supplied; do not silently substitute one for the other.

A changing mix of properties can distort a market index. A rise in average achieved price because more high-quality parcels sold does not prove that every unchanged parcel increased by the same amount. Investigate the data, controls and relevance to the subject's segment. A general inflation figure, construction cost index or asking-price trend is not automatically a supported land-sale time adjustment.

8 Extract differences from original paired sales

Paired analysis examines transactions that are sufficiently alike in relevant respects to isolate a particular difference. The cleaner the comparison, the easier it is to interpret the price difference. Real properties rarely differ in only one respect, so investigate dates, rights, circumstances, quantity and other attributes before attributing the entire price difference to a selected feature.

The original Harana controlled pairs each involve 500-square-metre land parcels in the stipulated segment. Pair S compares otherwise equal unserviced and serviced parcels at PHP 3 million and PHP 3.15 million; the supplied difference is PHP 150,000, or PHP 300 per square metre. Pair K compares otherwise equal interior and corner parcels at the same two prices, supporting PHP 300 per square metre for that isolated corner difference.

Pair H compares a moderately irregular parcel at PHP 3 million with an otherwise equal regular parcel at PHP 3.05 million, supporting PHP 50,000 or PHP 100 per square metre. Pair R compares inferior and standard road access at PHP 2.9 million and PHP 3 million, supporting PHP 100,000 or PHP 200 per square metre. All other relevant differences are explicitly controlled by the exercise.

The percentage equivalent needs its denominator. Pair S's PHP 150,000 difference is five percent of the PHP 3 million unserviced price, but approximately 4.7619 percent of the PHP 3.15 million serviced price. The absolute difference is unchanged while the percentage description changes. State the reference price and do not apply an extracted percentage to a different base without explaining its relevance.

Pair	Controlled difference	Lower price PHP	Higher price PHP	Unit gap PHP
S	Unserviced versus serviced	3,000,000	3,150,000	300
K	Interior versus corner	3,000,000	3,150,000	300
H	Irregular versus regular	3,000,000	3,050,000	100
R	Inferior versus standard access	2,900,000	3,000,000	200

Pair assumptions: Each parcel is 500 sq m. All other material differences are stipulated controlled. These are invented extraction exercises, not verified actual market premiums.

These invented pairs show extraction arithmetic; they do not prove actual universal premiums. A real pair with superior services, larger frontage and a later sale date cannot isolate services without accounting for the other differences. Seek additional evidence, supported controls or a more limited treatment rather than assigning the whole gap to the chosen feature.

9 Distinguish sequential and common-base percentages

A percentage adjustment must identify its base. Two percentages may be additive when the exercise says each applies independently to the same starting amount. They are multiplicative when the exercise says the next percentage applies to the preceding adjusted subtotal. The same signs and rates can therefore produce different results under different models.

In the original sequential example, start at PHP 8,000 per square metre, apply a ten-percent market-condition increase, then a five-percent increase to that adjusted subtotal, then a four-percent decrease to the next subtotal. The amounts are PHP 8,800, PHP 9,240 and PHP 8,870.40. The combined factor is 1.10 × 1.05 × 0.96 = 1.1088. The final change is 10.88 percent of the original amount.

Stage	Specified operation	PHP per sq m
Raw	Starting amount	8,000.00
1	8,000 × 1.10	8,800.00
2	8,800 × 1.05	9,240.00
3	9,240 × 0.96	8,870.40

If those same rates were explicitly defined on a common original base, the net percentage would be 10 + 5 − 4 = 11 percent, producing PHP 8,880. The PHP 9.60 difference is due to the specified bases, not a rounding mistake. Neither formula should be used indiscriminately. Read the model definition and show intermediate amounts.

Pure percentage multipliers commute mathematically when they are fixed factors: multiplying 1.10 and 1.05 in the opposite order gives the same product. That mathematical fact does not mean every real adjustment order is irrelevant. A fixed monetary adjustment inserted between percentage stages may change the base receiving the subsequent percentage, and different extracted rates may be defined on different underlying amounts.

For a second illustration, PHP 8,000 plus a PHP 200 unit allowance, followed by a ten-percent increase, equals PHP 9,020. Applying ten percent first and adding PHP 200 afterward equals PHP 9,000. Identify whether the

monetary adjustment is intended in sale-date or valuation-date terms and which base the percentage affects. Calculation sequence should express the underlying comparison rather than be selected for a preferred result.

10 Build the original Harana adjustment grid

The subject is the stipulated 500-square-metre serviced interior residential parcel with standard access and moderately irregular shape. A has inferior road access and a superior regular shape; B has a superior corner position, inferior services and a superior regular shape; C has a mildly superior shape. Its PHP 50-per-square-metre shape allowance is separately supplied for this exercise, not extracted by halving Pair H without evidence.

A's raw PHP 6,000 per-square-metre amount receives five percent for market conditions, becoming PHP 6,300, then plus PHP 200 for inferior access and minus PHP 100 for superior shape. Its adjusted unit indication is PHP 6,400. B starts at PHP 6,500, has no supplied market-condition change, receives minus PHP 300 for its superior corner, plus PHP 300 for inferior services and minus PHP 100 for superior shape, also giving PHP 6,400.

C's raw PHP 6,300 receives a supplied two-percent market-condition increase, becoming PHP 6,426, then minus PHP 50 for mildly superior shape, giving PHP 6,376. No other grid adjustments are supplied. The selected records' rights and transactional conditions are stipulated compatible, and the quantities are consistent. Each row retains its raw amount, time subtotal and physical differences.

Original grid row	A	B	C
Raw PHP per sq m	6,000	6,500	6,300
Time factor supplied	1.05	1.00	1.02
Time-adjusted unit	6,300	6,500	6,426
Access PHP per sq m	+200	0	0
Corner PHP per sq m	0	−300	0
Services PHP per sq m	0	+300	0
Shape PHP per sq m	−100	−100	−50
Adjusted PHP per sq m	6,400	6,400	6,376

Grid scope: Compatible achieved sales, rights, use and transaction terms are stipulated. Time applies to raw unit amounts; subsequent monetary adjustments are supplied in valuation-date unit terms. C's shape input is separately stipulated.

The narrow adjusted range is PHP 6,376–6,400 per square metre. A narrow range is a useful diagnostic, but it does not prove that every adjustment is correct. Unsupported adjustments can be chosen to force convergence. Review extraction, verification, scope and possible double counting before treating the range as meaningful evidence.

The original grid provides no national maximum adjustment percentage, mandatory number of sales or prescribed reconciliation rule. It teaches a transparent calculation on supplied evidence. Actual data and uncertainties may require further investigation or another appropriate approach rather than completion of a grid at any cost.

11 Use gross and net adjustment checks carefully

Net adjustment is the signed combined change; gross adjustment counts the magnitude of individual changes without allowing positive and negative items to cancel. Specify the denominator and stages included. These diagnostics can reveal how far a comparable amount has been transformed, but neither is a universal pass-fail rule in this lesson.

For A, the monetary unit changes are plus PHP 300 from time, plus PHP 200 for access and minus PHP 100 for shape. Net is plus PHP 400; gross is PHP 600. Dividing both by the original PHP 6,000 raw unit amount gives approximately 6.6667 percent net and ten percent gross. The time contribution is the monetary result of its five-percent stage, not a second five-percent item added again.

For B, the changes are minus PHP 300 for corner, plus PHP 300 for services and minus PHP 100 for shape. Net is minus PHP 100 and gross PHP 700. Against the raw PHP 6,500 unit amount, the diagnostics are approximately −1.5385 percent net and 10.7692 percent gross. A small net change can conceal substantial offsetting differences.

Diagnostic on raw unit base	A	B
Signed monetary changes	+300 +200 −100	−300 +300 −100
Net PHP per sq m	+400	−100
Gross PHP per sq m	600	700
Net percentage	+6.6667%	−1.5385%
Gross percentage	10.0000%	10.7692%

Use the diagnostics to ask whether differences are sufficiently supported and whether the comparable remains relevant. A smaller gross change is often informative about similarity, but a lightly adjusted unverified transaction is not necessarily better than a more thoroughly supported record. Conversely, a heavily adjusted record needs careful explanation and may offer less persuasive support than a closer alternative.

12 Reconcile the indications with explained judgment

Reconciliation considers the evidence quality, similarity, verification, adjustment support and remaining uncertainty. An arithmetic average assigns equal numerical influence whether or not that reflects the evidence. An arbitrary weighted average can be equally misleading if the weights merely steer the conclusion. Explain the basis for the chosen treatment.

The original teaching reconciliation assigns A forty percent, B thirty-five percent and C twenty-five percent. A has the strongest corroborated source record and supplied access and shape support. B is adequately verified but has several offsetting feature differences. C remains usable under the exercise’s stipulated verification, but has less independent corroboration and a separately supplied shape input. These are explicitly illustrative judgments, not a rule that older or more adjusted evidence must always receive greater weight.

The weighted unit amount is 0.40 × PHP 6,400 + 0.35 × PHP 6,400 + 0.25 × PHP 6,376 = PHP 6,394. Multiplying by the subject’s stipulated 500 square metres gives PHP 3,197,000. An original presentation may round that limited teaching indication to about PHP 3.2 million while retaining the unrounded computation in the workfile. It is not an actual property appraisal.

Comparable	Adjusted unit PHP	Illustrative weight	Weighted PHP
A	6,400	40%	2,560
B	6,400	35%	2,240
C	6,376	25%	1,594
Total	Not a sum of units	100%	6,394

Subject conversion: PHP 6,394 per sq m × 500 sq m = PHP 3,197,000. A limited teaching presentation may round to about PHP 3.2m; preserve the unrounded workings.

An equal arithmetic mean would be approximately PHP 6,392 per square metre, or PHP 3,196,000 for the subject. Its similarity to the weighted result does not make weighting unnecessary in all cases or validate the inputs. Here A and B share an adjusted amount and C is close, so the selected weighting has little effect. That is a property of this supplied dataset.

State what the conclusion includes and excludes. This is a land-interest indication under the stipulated conditions, not a building-inclusive value, tax assessment, company equity or net sale proceeds. A rounded output should reflect the strength of the evidence and should not conceal unresolved material facts behind a precise calculator result.

13 Handle divergent or thin evidence

If adjusted amounts diverge materially, investigate why. The records may concern different market segments, incompatible rights, inconsistent areas, unusual terms or weak adjustments. Averaging PHP 4,000 and PHP 10,000 per square metre without explaining the difference can create a midpoint that neither transaction supports for the subject.

Consider whether the divergence reflects a genuine range of evidence or a correctable defect. A mistaken hectare conversion, duplicate deed or building-inclusive package can be corrected or excluded for the stated use. A verified market difference may require revised segmentation or a carefully explained reconciliation. Do not eliminate every inconvenient record simply to achieve a narrow range.

Thin evidence does not authorize inventing adjustment percentages. Seek further transactions, relevant qualitative comparisons, other supportable methods or an appropriate assignment response. Explain the effect of uncertain information on the conclusion. A spreadsheet populated with assumed rates should remain a scenario analysis unless the valuation support establishes their actual applicability.

Sensitivity can help communicate a specified uncertainty. If the reconciled unit indication is stipulated between PHP 6,200 and PHP 6,600 for a 500-square-metre subject, the illustrative total range is PHP 3.1–3.3 million. This arithmetic does not establish that range's probability, representativeness or legal status. State which input varies and what investigation could narrow the uncertainty.

14 Use qualitative comparisons when appropriate

A qualitative comparison can identify a sale as inferior, similar or superior in a relevant respect without claiming an unsupported numerical adjustment. The explanation must still address the important differences and why the transaction informs the subject. A label such as better is inadequate when the comparable has better access but an inferior shape and a different right.

For an original controlled example, Sale L at PHP 6,000 per square metre is established inferior overall to the subject and Sale U at PHP 6,800 is established superior overall, with compatible rights, dates and terms. Under those stipulated comparisons the evidence brackets a subject indication between their amounts. It does not establish the midpoint of PHP 6,400 automatically.

Choose a point or range only with adequate reasoning and support. More similarity to one bracket, verification strength or another relevant indication can inform the judgment. If the lower and upper records have conflicting unquantified features, the simple bracket may not be established at all. State the specific comparison rather than assuming a rank from price alone.

Qualitative and quantitative work can be combined transparently. A supported time adjustment may normalize an older sale while remaining feature differences are discussed qualitatively. Explain which matters were quantified and which were not. Do not hide large unaddressed differences by converting every grid cell into an unexplained superior or inferior label.

15 Audit the grid and its workfile

Check that raw prices match retained sources; areas and units are consistent; normalization and percentages use their stated bases; physical adjustments have the correct sign; and no feature is counted twice. Confirm that adjusted unit amounts are multiplied by the subject area rather than the comparable area when the selected unit model calls for that conversion.

Retain extraction records, controlled-pair assumptions, market-condition support, calculation versions, rejected evidence and reconciliation reasons. A positive access adjustment should link to the relevant evidence and subject-comparable difference, not merely to a copied rate from another jurisdiction. Store supplied teaching inputs separately from verified market findings in a real assignment.

Check net and gross calculations, percentage versus percentage-point language and simple versus compound conventions. Use intermediate subtotals to expose where an error occurs. The original three-stage sequence must recover PHP 8,870.40, while the principal grid must recover A PHP 6,400, B PHP 6,400 and C PHP 6,376 before reconciliation.

Report the material strengths and limitations of the selected evidence. The reader should understand why the comparables were selected, how significant differences were handled and why the conclusion is reasonable within the defined scope. A visually complete grid without those explanations is still an incomplete valuation argument.

16 Explain the result before moving to another approach

An effective sales-comparison conclusion identifies the interest and date, market segment, evidence selected, unit, adjustment support, resulting indications, reconciliation and material limitations. It preserves the distinction between recorded prices and modeled subject-equivalent amounts. It also explains when the available evidence supports only a limited result or requires further work.

The Harana teaching file demonstrates one coherent chain: compatible achieved-sale records, controlled paired differences, explicit adjustment direction, a stated time-first unit model, separately tested gross and net changes, and an explained illustrative reconciliation. The equal adjusted amounts for A and B do not erase the different paths by which they were obtained or the need to evaluate their evidentiary strength.

The international references for this lesson are IVS 103’s market-approach discussion and the related data and documentation framework. Selected current text in the IVSC-authored 2025 redline was visually distinguished from deleted wording. The lesson’s specific amounts, sequence, weights and original templates are educational applications rather than mandatory standards tables. Exact local compliance requires the applicable full national standards and assignment context. [1, 2]

17 Ten worked sales comparison cases

Attempt each question before reading the solution. Rights transaction conditions and adjustment support are stipulated where stated. Preserve each unit sign base and model convention.

Case 1 Convert compatible sales to unit amounts

Question: A sells PHP 3m/500 sq m, B PHP 3.575m/550 and C PHP 2.835m/450. Land-only scope, rights and units are stipulated compatible. Calculate raw unit amounts.

Solution: A PHP 6,000, B PHP 6,500 and C PHP 6,300 per sq m.

Reasoning: Division normalizes quantity within the supplied scope. It does not complete feature comparison or prove a final subject value.

Case 2 Set the direction

Question: A lacks subject services; the supported difference is PHP 300 per sq m. B has a corner advantage the subject lacks; the supported premium is PHP 300 per sq m. State signs.

Solution: Add PHP 300 to A; subtract PHP 300 from B.

Reasoning: Adjust the comparable toward the subject. Inferior comparable feature receives a supported addition; superior feature receives a subtraction.

Case 3 Extract a controlled pair

Question: Otherwise equal 500-sq-m serviced and unserviced parcels sell PHP 3.15m and PHP 3m. Extract total and unit differences and the percentage on the unserviced base.

Solution: PHP 150,000 total; PHP 300 per sq m; 5% of the PHP 3m unserviced base.

Reasoning: Other differences are explicitly controlled. Using the serviced denominator would produce approximately 4.7619%, so state the base.

Case 4 Follow sequential bases

Question: Start PHP 8,000 per sq m, then apply +10%, +5% and −4%, each on the preceding subtotal. Compare with the same rates explicitly on a common original base.

Solution: Sequential: 8,800 then 9,240 then PHP 8,870.40. Common original base: 8,000 × 1.11 = PHP 8,880; difference PHP 9.60.

Reasoning: The specified bases drive the result. Summing rates does not reproduce the sequential model.

Case 5 Compute grid A

Question: A raw PHP 6,000 per sq m receives +5% time, then +PHP 200 inferior access and −PHP 100 superior shape. Calculate its adjusted amount.

Solution: 6,000 × 1.05 = 6,300; +200 −100 = PHP 6,400 per sq m.

Reasoning: Time applies first to the raw unit amount; supplied monetary differences then use valuation-date unit terms.

Case 6 See offsetting differences

Question: B raw PHP 6,500 has no time change and receives −300 corner, +300 services and −100 shape, all PHP per sq m. Compute adjusted unit, net and gross changes against the raw base.

Solution: Adjusted PHP 6,400. Net −PHP 100, approximately −1.5385%; gross PHP 700, approximately 10.7692%.

Reasoning: A small net adjustment can conceal larger offsetting differences. Diagnostics require a defined base and included stages.

Case 7 Complete C and reconcile

Question: C raw PHP 6,300 receives +2% time then −PHP 50 shape. A and B each indicate PHP 6,400. Use stipulated illustrative weights 40% A, 35% B and 25% C, then subject area 500 sq m.

Solution: C = 6,426 −50 = PHP 6,376. Weighted unit PHP 6,394; subject amount PHP 3,197,000, about PHP 3.2m if appropriately rounded in this limited exercise.

Reasoning: The weights are supplied illustrative judgments. Retain the unrounded computation and explain evidence quality rather than presenting this as an actual appraisal.

Case 8 Separate concession face value from price effect

Question: Recorded consideration PHP 3.1m has a seller concession with independently stipulated price effect PHP 100,000. What normalized exercise amount results, and what must not be generalized?

Solution: PHP 3m. Do not assume the face amount of every concession equals its price effect.

Reasoning: The exercise supplies the effect; real normalization requires relevant transaction and financing evidence.

Case 9 Respect qualitative bounds

Question: Compatible controlled Sale L at PHP 6,000 per sq m is established inferior overall to the subject and Sale U at PHP 6,800 superior overall. What does this establish?

Solution: A qualitative bracket under the supplied conditions; it does not establish the PHP 6,400 midpoint automatically.

Reasoning: Rank and price do not determine the exact position within a bracket. Additional reasoning and support are needed.

Case 10 Investigate divergent indications

Question: Adjusted results of PHP 4,000 and PHP 10,000 per sq m are unexplained. A reviewer chooses PHP 7,000 solely as their average. What response is better?

Solution: Investigate differences in segment rights dates units terms data quality and adjustment support before reconciling.

Reasoning: A midpoint can conceal incompatible evidence. Correct defects or explain genuine differences rather than use arithmetic to replace the inquiry.

18 Sales comparison worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Screen the market

Define the interest and market for a land-only subject. Evaluate a completed compatible sale, a nearby building-inclusive package, a repeated deed and an asking record. State inclusion exclusion or further investigation and reasons.

_____

_____

_____

2 Extract a pair

Two otherwise equal 400-sq-m parcels sell PHP 2.4m without services and PHP 2.52m with services. Compute total unit and percentage differences using the unserviced base. State the adjustment direction for an unserviced comparable against a serviced subject.

_____

_____

_____

3 Compare percentage models

Start PHP 10,000 per sq m. Apply +8% then −3% on the preceding subtotal. Compare with both percentages explicitly applied to the original base. State intermediate results and difference.

_____

_____

_____

4 Complete the principal grid

Use A raw 6,000 +5% time then +200 access −100 shape; B raw 6,500 no time then −300 corner +300 services −100 shape; C raw 6,300 +2% time then −50 shape. All monetary inputs are PHP per sq m. Compute final units and A net and gross monetary changes against raw.

_____

_____

_____

Reconciliation worksheet continued

5 Reconcile transparently

Apply the stipulated teaching weights 40% A 35% B and 25% C to your grid. Use a 500-sq-m subject. Compare with the equal mean and explain what the weighting and narrow range do not prove.

_____

_____

_____

6 Normalize within scope

An exercise supplies recorded price PHP 4.2m and independently supported concession price effect PHP 200,000; land area 500 sq m, compatible rights and no included improvements. Compute normalized total and unit amounts. Explain evidence needed before using a real concession adjustment.

_____

_____

_____

7 State a qualitative conclusion

A PHP 6,200 unit sale is stipulated inferior overall and a PHP 6,700 unit sale superior overall to a compatible subject. State the limited bracket conclusion and why choosing the midpoint requires additional judgment.

_____

_____

_____

8 Audit the evidence trail

List checks for sign units percentage bases time convention duplicate weight double counting subject-area conversion source support and issued model version. For a separate supplied sensitivity of PHP 6,200–6,600 per sq m over 500 sq m, compute the total range and state its limitations.

_____

_____

_____

19 Review and examination checks

Distinction	What to establish
Nearby and comparable	Defined competitive market interest and use
Ask and achieved sale	Preserve transaction status
Rows and independent sales	Prevent duplicate evidence weight
Package and vacant land	Resolve included assets and allocation
Total and unit amount	Convert money and quantity consistently
Inferior and superior	Adjust comparable toward subject
Face concession and price effect	Investigate supported normalization
Calendar and market conditions	Time rate needs relevant evidence
Simple and compound	Read the supplied convention
Pair and isolated feature	Control other material differences
Sequential and original base	Identify each percentage denominator
Net and gross	Signed sum differs from absolute magnitudes
Convergence and validation	Narrow range does not prove support
Weights and judgment	Explain evidence quality and similarity
Rounded and unrounded	Preserve precise workings within limited scope

Explain the valuation chain

State the subject interest date market and unit. Identify the selected records and verification. Show normalization adjustment support signs and bases. Reconcile the indications and explain material limitations. Keep recorded prices distinct from modeled subject-equivalent amounts.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. What is the main task of the sales comparison approach?

A. Choose the largest recorded price

B. Average every nearby advertisement

C. Relate relevant transaction evidence to the defined subject interest and date

D. Replace all verification with a grid

2. Which record requires additional scope investigation before direct vacant-land use?

A. A building and equipment inclusive package with unresolved allocation

B. A stipulated compatible land-only sale

C. A verified compatible land deed

D. A compatible land sale with established area

3. A sells PHP 3m for 500 sq m within the supplied land scope. What raw unit amount results?

A. PHP 600

B. PHP 60,000

C. PHP 3m per sq m

D. PHP 6,000

4. In a comparable-to-subject grid, the comparable is inferior in a feature with a supported positive difference. What direction applies?

A. Always subtract

B. Add the supported difference to the comparable

C. Change the subject’s recorded sale price

D. Always ignore

5. A comparable has a supported PHP 300 per sq m corner premium absent from the interior subject. What adjustment applies?

A. Multiply the subject area by the premium twice

B. Add PHP 300 per sq m

C. Add 300%

D. Subtract PHP 300 per sq m

6. Otherwise equal 500-sq-m pairs sell PHP 3m and PHP 3.15m. What unit difference is isolated in the supplied exercise?

A. PHP 150,000 per sq m

B. PHP 300 per sq m

C. PHP 3,000 per sq m

D. PHP 30 per sq m

7. What is that PHP 150,000 difference as a percentage of the PHP 3m lower base?

A. 5%

B. 50%

C. 4.7619%

D. 0.5%

8. A pair differs in services frontage and sale date. Can the entire price gap isolate services without more work?

A. Yes because there are two sales

B. Yes if the higher sale is newer

C. No; other material differences need control or investigation

D. Yes because services always dominate

9. PHP 8,000 receives +10% then −5%, each on the preceding subtotal. What is the result?

A. PHP 8,360

B. PHP 8,400

C. PHP 8,800

D. PHP 7,600

10. PHP 8,000 receives +10%, +5% and −4% sequentially. What final unit amount results?

A. PHP 8,880

B. PHP 8,870.40

C. PHP 9,240

D. PHP 8,640

11. The same +10%, +5% and −4% are expressly defined on the common original PHP 8,000 base. What result follows?

A. PHP 8,870.40

B. PHP 9,020

C. PHP 8,880

D. PHP 8,800

12. A raw PHP 6,000 receives +5% time, then +200 access and −100 shape in PHP per sq m. What adjusted unit results?

A. PHP 6,100

B. PHP 6,300

C. PHP 6,500

D. PHP 6,400

13. B raw PHP 6,500 has changes −300 +300 and −100 per sq m. What gross monetary adjustment results?

A. Zero

B. PHP 100

C. −PHP 100

D. PHP 700

14. C raw PHP 6,300 receives +2% time then −50 shape in PHP per sq m. What adjusted amount results?

A. PHP 6,250

B. PHP 6,426

C. PHP 6,376

D. PHP 6,476

15. A and B indicate PHP 6,400 and C PHP 6,376. Use weights .40 .35 .25. What weighted unit results?

A. PHP 6,392

B. PHP 6,394

C. PHP 6,400

D. PHP 6,376

16. That PHP 6,394 reconciled unit is applied to a stipulated 500-sq-m subject. What total results?

A. PHP 3,197,000

B. PHP 2,835,000

C. PHP 3,196,000

D. PHP 3,575,000

17. What does a narrow adjusted range establish by itself?

A. Conclusive proof every input is correct

B. A diagnostic result that still requires review of evidence and adjustment support

C. Automatic national compliance

D. Proof no other approach could be relevant

18. Qualitative lower and upper sales are stipulated inferior and superior overall. What is sound?

A. The evidence can bracket a limited indication but exact selection needs reasoning

B. The midpoint is automatically the exact value

C. Price alone proves every feature rank

D. Every qualitative comparison is prohibited

19. Six months of stipulated simple monthly growth at 1% applies to PHP 6,000. What amount follows?

A. PHP 6,369.12

B. PHP 6,006

C. PHP 6,360

D. PHP 6,600

20. What should happen when two materially divergent adjusted indications remain unexplained?

A. Choose their average without investigation

B. Discard the lower one automatically

C. Change rates until both become equal

D. Investigate comparability data and adjustment support before reconciling

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	C
2	A	12	D
3	D	13	D
4	B	14	C
5	D	15	B
6	B	16	A
7	A	17	B
8	C	18	A
9	A	19	C
10	B	20	D

1. C Comparison requires relevant rights dates terms and characteristics. A grid organizes analysis rather than independently supplies value evidence.

2. A Included assets differ from vacant land. Investigate the package and supported allocation rather than divide the full amount automatically.

3. D 3m/500 = PHP 6,000 per sq m. This is the raw comparable observation before supported adjustments.

4. B Adjust the comparable toward the subject. The sign follows the feature's relative influence; the amount still needs evidence.

5. D Remove the superior comparable advantage to indicate the interior subject-equivalent amount.

6. B The total difference PHP 150,000 / 500 = PHP 300 per sq m, with other relevant features explicitly controlled.

7. A 150,000/3m = 5%. A different denominator gives a different percentage, so name the base.

8. C A pair does not automatically isolate one feature. Investigate confounding differences before attribution.

9. A 8,000 ×1.10 ×.95 = PHP 8,360. Adding the rates would describe a different specified-base model.

10. B 8,000 ×1.10 ×1.05 ×.96 = PHP 8,870.40. Preserve intermediate amounts and bases.

Answer explanations continued

11. C Net original-base percentage is 11%; 8,000 ×1.11 = PHP 8,880. The convention differs from sequential application.

12. D 6,000 ×1.05 = 6,300; +200 −100 = PHP 6,400 under the supplied stage definitions.

13. D Gross sums absolute magnitudes: 300+300+100 = PHP 700. Net signed change is −PHP 100.

14. C 6,300 ×1.02 = 6,426; subtract 50 = PHP 6,376.

15. B 2,560+2,240+1,594 = PHP 6,394. Weights need explained judgment; the supplied weights are illustrative.

16. A 6,394 ×500 = PHP 3,197,000. Use the subject quantity in the selected unit model, not a comparable's area.

17. B Unsupported adjustments can force convergence. A narrow range does not replace source and judgment review.

18. A A controlled bracket is useful but does not determine the subject's exact position without support.

19. C Simple factor =1+.01×6=1.06; amount PHP 6,360. Compound growth is a different stated convention.

20. D Divergence can reveal defects or genuine market differences. Explain those before weighting or selecting a conclusion.

Worksheet model responses

Response 1

Define rights date basis use condition and unit. Retain the completed sale if relevant and adequately verified; investigate package allocation before land-only use; remove repeated-deed weight while retaining the trail; keep asking evidence separately rather than relabeling it achieved. Proximity alone is insufficient and a count of three is not a universal rule.

Response 2

Difference = PHP 120,000; divide by 400 = PHP 300 per sq m; 120,000/2.4m = 5%. Add the supported unit difference to the inferior unserviced comparable to align with the serviced subject. The percentage base and controlled other features are explicit; real pairs need verification.

Response 3

Sequential: 10,000 × 1.08 = PHP 10,800; ×0.97 = PHP 10,476. Common original base: 10,000 × (1 + .08 − .03) = PHP 10,500. Difference PHP 24. The sequential combined factor is 1.0476 and the original-base factor 1.05.

Response 4

A: 6,300 +200 −100 = PHP 6,400. B: 6,500 −300 +300 −100 = PHP 6,400. C: 6,426 −50 = PHP 6,376. A time change is +300; net +400, gross |300| + |200| + |−100| = PHP 600. Against raw 6,000, net approximately 6.6667% and gross 10%. Do not count the time percentage twice.

Response 5

Weighted unit = .4×6,400 + .35×6,400 + .25×6,376 = PHP 6,394; ×500 = PHP 3,197,000. Equal mean = PHP 6,392; ×500 = PHP 3,196,000. Similar results reflect this dataset. Explain verification similarity and adjustment support; weights are illustrative and narrow convergence does not validate unsupported inputs.

Response 6

Normalized total = 4.2m −200,000 = PHP 4m; divide by 500 = PHP 8,000 per sq m. Investigate the concession terms market context actual price effect assets rights dates and verification. Do not automatically substitute its face amount for supported effect on consideration.

Response 7

Under the stipulated overall comparisons, the subject is bracketed between PHP 6,200 and PHP 6,700 per sq m. Midpoint PHP 6,450 is arithmetic only; selecting it requires support about relative similarity evidence and remaining differences. If overall ranking is not established, the bracket itself needs further analysis.

Response 8

Trace raw amount identity rights dates units extraction and selected signs. Define percentage bases and simple or compound time. Check duplicates overlaps net and gross stage inclusion subject quantity weights and rounding; preserve source IDs reasons review and issued versions. Sensitivity total range = PHP 3.1m–3.3m. Supplied endpoints do not establish probabilities actual market range or a final opinion.

22 Essential terms and calculation review

Comparable Transaction informing the defined subject through relevant similarities and differences.

Unit of comparison Consistent price measure matched with a relevant quantity.

Normalization Supported treatment of transaction terms rights or included assets.

Adjustment direction Sign aligning comparable characteristics with the subject.

Paired analysis Comparison isolating a feature after controlling material differences.

Market conditions Relevant change between transaction and valuation dates.

Sequential percentage Rate applied to the preceding adjusted subtotal.

Common original base Rates independently defined on the same starting amount.

Net adjustment Signed combined monetary change under defined stages.

Gross adjustment Sum of individual change magnitudes under defined stages.

Reconciliation Explained consideration of relevant indications and evidence quality.

Qualitative bracket Limited range supported by established overall inferior and superior comparisons.

Teaching relationship	Formula or check
Raw unit price	Compatible amount / comparable quantity
Controlled paired difference	Higher minus lower after other factors controlled
Unit adjustment from total	Supported total difference / relevant comparable area
Simple time factor	1 + supplied periodic rate × periods
Compound time factor	(1 + supplied periodic rate) raised to periods
Sequential unit amount	Starting amount × defined factors
Net and gross	Signed sum and sum of absolute monetary changes
Weighted indication	Sum of adjusted units × explained weights
Subject total	Reconciled unit × applicable subject quantity

The formulas express defined teaching models. They do not establish market rates rights comparability adjustment support or a final opinion without the necessary evidence and judgment.

Lesson 25 develops the cost approach, depreciation and site value. A supported sales-comparison site indication can inform that work, but do not add land derived from a building-inclusive sale to the same improvements again. Preserve the scope of every amount as it moves from one approach or worksheet to another.

23 Sources and preparation status

Research was reviewed on 12 October 2026. The narrative, Harana controlled pairs, adjustments, sequence examples, weights, cases and questions are original educational work. No actual market premium or property appraisal is established by the fictional data.

The IVSC-authored 2025 redline hosted by ICAEW was available from the prior lesson's source file. Selected current market-approach text on printed pages 46–48 was visually checked against deletion marks. The international source supports the general framework; it is not a complete national PVS clause audit.

The lesson's particular grid sequence, simple or compound conventions, gross-adjustment denominator and reconciliation weights are explicitly defined teaching models. They are not mandatory national percentages or thresholds. A future exposure draft is not treated as adopted requirements. For actual work and examination preparation, verify the applicable national standards and assignment requirements.

1 IVSC 2025 market approach reference

IVSC-authored redline effective 31 January 2025, hosted by ICAEW. IVS 103 section 20 covers market comparison and supported differences. Selected current text on printed pages 46–48 was visually checked; prior deleted wording was distinguished. Related data and documentation chapters were checked in Lesson 23.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 IVSC official standards architecture

Official standards page lists IVS 103 Valuation Approaches, IVS 104 Data and Inputs, IVS 105 Valuation Models, IVS 106 Documentation and Reporting, and IVS 400 Real Property Interests. Used for the international chapter framework, not as a substitute for the full applicable national text.

https://ivsc.org/standards/

REALEX

Lesson 25

Cost Approach, Depreciation and Site Value

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Develop a cost indication by defining the relevant new alternative, documenting cost inclusions, measuring nonoverlapping losses and adding supported site value.

This lesson follows the evidence work in Lesson 23 and site comparison in Lesson 24. It includes an original component cost build-up, physical and obsolescence schedule, extraction and allocation examples, ten worked cases, a two-page worksheet and twenty original questions.

All Luntian figures, rates, lives and losses are fictional teaching assumptions. They demonstrate explicit models rather than actual construction prices, mandated depreciation schedules or a property appraisal.

Your learning goals

- Distinguish replacement from reproduction cost.
- Define the subject and equivalent-utility alternative.
- Build direct and indirect costs with clear inclusions.
- Separate contractor margin and entrepreneurial incentive.
- Update compatible cost evidence to the valuation date.
- Distinguish valuation depreciation from book expense.
- Test physical deterioration and economic curability.
- Use effective age and total life consistently.
- Prevent overlap in component and obsolescence deductions.
- Combine depreciated improvements and supported site value.
- Extract and allocate land with explicit ratio bases.
- Audit and explain the resulting indication.

Study plan: Allow four to five hours in two sessions. Read sections 1–8 for cost and condition, then sections 9–16 for calculation and land integration. Attempt the cases, worksheet and practice test before checking the responses.

1 Understand the cost approach as a valuation argument

The cost approach develops an indication by relating the subject to the cost of obtaining a suitable new asset, then accounting for differences between that hypothetical new asset and the existing property. For real estate, a supported site amount is combined with the appropriate depreciated improvement contribution. The estimate must answer the defined valuation question: a construction budget, an insurance amount and a market-value opinion can have different scopes.

Substitution provides the economic reasoning. A participant considers alternatives offering comparable utility, including the time, risk and practical ability to obtain them. An expensive building does not compel a purchaser to reimburse every peso spent on it. Conversely, a fully depreciated accounting record does not establish that a useful building has no market contribution. Keep actual expenditure, cost new and value separate throughout the lesson.

The international framework distinguishes replacement and reproduction, considers relevant costs, and addresses deterioration and obsolescence. Valuation depreciation serves a different purpose from systematic accounting or tax expense. [1] The original models below apply those concepts to fictional evidence; their rates and life assumptions are supplied exercises, not Philippine schedules or mandatory market allowances.

A complete answer therefore identifies the asset and interest, selects a cost premise, documents cost inclusions, measures supported losses, establishes site value and investigates the resulting indication. A calculator can perform each subtraction correctly while the analysis remains wrong because the wrong cost basis or an overlapping loss was used.

2 Define the subject and the hypothetical new alternative

Record the subject land interest, site area, building use, floor-area convention, construction specification, actual condition and valuation date. Also identify legal restrictions and the economically appropriate use. A structure physically standing on the land is not necessarily an improvement that a typical participant would reproduce. Its use and contribution require analysis within the applicable basis and assignment scope.

The original Luntian exercise concerns a fictional 500-square-metre site with a 200-square-metre single-storey community services building. Land and improvements belong to the same defined interest. The date is 30 September 2026. The stipulated use is legally permissible and economically supportable; all valuation figures are Philippine pesos. The site amount is PHP 3,197,000, carried from Lesson 24 solely as an educational input for compatible land-only scope.

The replacement alternative supplies the same necessary accommodation and service utility using current practical construction. The model includes the building, ordinary external works and stated indirect allowances. It excludes movable business equipment, business goodwill and a separate additional land purchase. No actual contractor quotation, development approval or market appraisal is represented by these assumptions.

Determine how measured floor area relates to each rate. A gross-floor-area rate cannot simply be multiplied by rentable area or site area. Covered verandas, basements, high-specification plant rooms and open paving may require different units and specifications. The inclusion schedule matters as much as the headline PHP-per-square-metre rate.

3 Distinguish reproduction from replacement

Reproduction recreates the subject’s design and specification as a replica. Replacement obtains equivalent utility using a suitable current alternative. The distinction is about the asset being priced, rather than whether

the invoice is old or new. Both can use valuation-date cost evidence; neither is automatically an historical-cost calculation.

Suppose the old Luntian design requires a current replica cost of PHP 7.4 million, while the suitable equivalent-utility alternative costs PHP 6.8 million. The PHP 600,000 gap may reflect redundant decorative work, inefficient configuration or changed techniques. It does not establish that every subject has PHP 600,000 functional loss. The analyst must determine what the selected replacement model already excludes and what residual shortcomings still affect the existing asset.

A common double deduction starts with the cheaper replacement alternative and then subtracts the entire reproduction-minus-replacement gap again. If that gap has already been removed from the starting cost, repeating it understates the result. A residual operating inefficiency may still require analysis, but it needs separate support and a clear explanation of its relationship to the chosen replacement.

Replication may remain relevant where the subject’s distinctive characteristics supply utility that an ordinary modern substitute does not reproduce. The appropriate premise depends on the defined asset and value basis, not a universal rule that the newest design always wins. In an examination, identify the required premise before interpreting the numerical difference.

4 Build cost new with explicit inclusions

Begin with quantities and compatible unit costs, then review allowances excluded from those rates. For the Luntian building, the stipulated installed construction rates include contractor overhead and profit but exclude the separately identified external works and indirect items. This is an original educational build-up; the amounts are deliberately transparent so that additions can be audited.

The direct building components are structure and envelope PHP 2,200,000; internal finishes PHP 900,000; mechanical, electrical and plumbing PHP 1,100,000; and fitted fixed elements PHP 300,000. Their sum is PHP 4,500,000. Separately listed ordinary external works are PHP 500,000, producing direct cost PHP 5,000,000. That subtotal is not yet the selected all-in cost new.

The model then adds design and professional fees PHP 400,000, permissions and other stated fees PHP 100,000, an explicitly separate contingency PHP 250,000, construction-period financing PHP 350,000, and a separately stipulated entrepreneurial incentive PHP 700,000. The final replacement cost new is PHP 6,800,000. Each item is a supplied valuation-date assumption and each is counted once.

Original cost-new component	PHP
Structure and envelope	2,200,000
Internal finishes	900,000
MEP installations	1,100,000
Fixed fitted elements	300,000
External works	500,000
Direct subtotal	5,000,000
Professional fees	400,000
Other stated fees	100,000
Separate contingency	250,000

Original cost-new component	PHP
Construction-period finance	350,000
Separate entrepreneurial incentive	700,000
Replacement cost new	6,800,000

An arithmetic addition does not validate an allowance. Examine whether a quoted rate already contains design, contingency, contractor margin, taxes or financing. Establish the treatment of recoverable and nonrecoverable taxes for the relevant participant and assignment. This lesson prescribes no tax rate. A comprehensive turnkey quotation and a bare labour-and-material estimate cannot be compared without reconciling their inclusions.

5 Control cost date, location and measurement

A historical contract can inform the analysis after its scope and relevance are established. Separate market movement from specification change, unusual procurement, distress, exceptional delay, related-party terms and inefficient expenditure. Updating the old number does not remove those other differences. The valuation question concerns the relevant hypothetical participant at the valuation date.

An original indexing exercise has an otherwise compatible building subtotal of PHP 4.8 million at an index of 120. The valuation-date index is 135. Under the stipulated proportional convention, 4.8 million × 135 / 120 = PHP 5.4 million. The increase is 12.5%, not 15%; an index-point change is not the same thing as a percentage change.

Use the index only for the components it represents. If its series concerns building construction, applying it mechanically to land, finance or every professional allowance can create a false all-in estimate. A location factor similarly requires relevance to labour, supply, logistics and procurement. Multiple factors must have defined bases and avoid covering the same movement twice.

A unit-rate check provides a reasonableness test. The PHP 4.5 million building subtotal divided by 200 square metres is PHP 22,500 per square metre. Direct building-plus-external-works cost is PHP 25,000 per square metre if expressed on the same floor-area denominator. All-in PHP 6.8 million is PHP 34,000 per square metre. Those three numbers have different inclusions even though they share a denominator.

6 Separate contractor margin and entrepreneurial incentive

Contractor profit compensates the contractor within a particular supply or construction price. Entrepreneurial incentive concerns the reward a participant requires for coordinating and bearing the relevant creation risk. An observed completed-development profit is a historical outcome; an incentive is an input considered in the hypothetical creation analysis. Names alone do not establish that both can be added independently.

The Luntian direct rates already include contractor overhead and profit. The additional PHP 700,000 is separately stipulated to address entrepreneurial coordination risk not captured in those rates or the PHP 350,000 financing allowance. In a real assignment, that separation needs evidence. If financing assumptions already capture the relevant investor return, another full allowance may overlap. [1]

A percentage must state its base. Ten percent of PHP 5 million direct cost is PHP 500,000; ten percent of PHP 6.1 million before incentive is PHP 610,000. A target margin on final value is different again from a markup on cost. Do not choose whichever denominator produces the preferred opinion. Preserve the basis supplied by the question or supported by participant evidence.

Cost new can exceed market value when demand is weak or the asset is unsuitable. Adding an incentive does not eliminate the need to consider external or functional losses. Equally, an unsuccessful owner's actual loss does not necessarily justify eliminating every participant reward from a supported hypothetical cost model.

7 Distinguish valuation depreciation from bookkeeping

Valuation depreciation is the relevant reduction from the selected cost-new benchmark attributable to the subject's condition, utility and external circumstances. It is not simply the accumulated depreciation balance in the general ledger. Straight-line expense may reflect management policies, tax rules and acquisition allocations rather than the subject's present market characteristics.

An old building can retain a positive contribution after its accounting carrying amount reaches zero. A newer building can suffer substantial functional or external loss while its ledger balance remains high. Inspect the asset and evidence; do not relabel book depreciation as appraisal support. [1] Separate land from a depreciable improvement model rather than applying a building-life fraction to the combined property automatically.

Organize losses into physical deterioration, functional obsolescence and external or economic obsolescence. The categories help identify causes; they do not license three arbitrary percentages. A symptom such as low occupancy can have several causes. A noisy road, poor internal layout and broken services may all matter, but their value effects must be distinguished before summing deductions.

Prepare a loss register containing cause, affected component, cost basis, evidence, measurement method, remedy and overlap checks. If the same deterioration has already reduced an observed component contribution, another cost-to-cure deduction may count it again. The workfile should make every deduction traceable to a distinct effect.

8 Analyze physical deterioration and curability

Physical deterioration concerns wear, damage and condition of the asset or its components. Inspection identifies leaking roof sections, damaged finishes, corroded services and other defects. Technical repair information helps quantify remedies, while valuation analysis asks how participants respond to those defects. An engineering repair list and a value-loss schedule serve related but different purposes.

A curable item can be addressed by an economically justified remedy under the stated model. For example, a PHP 120,000 remedy that restores a stipulated PHP 170,000 of value benefit is economically attractive before other relevant effects. A PHP 250,000 remedy restoring only PHP 150,000 is not made economically curable merely because a contractor can perform it. Technical feasibility alone is insufficient.

The Luntian breakdown model stipulates PHP 200,000 curable physical loss as the supported amount. After excluding that affected cost slice, the remaining building cost is PHP 6.1 million and external works cost is PHP 500,000. The model then treats deterioration of those residual groups separately. This decomposition is supplied for calculation; actual fee and incentive allocations across components require support.

A repair deduction is not a reason to apply an additional whole-building age allowance to the same repair slice. If the model uses an age allowance on the residual base, document the exclusion. Repairs may have indirect disruption costs or incomplete restoration benefits, but those effects require their own analysis rather than an automatic contingency percentage.

9 Use age and life with a clearly defined model

Actual age measures elapsed time since completion; effective age expresses the condition and utility implied by the selected analysis. Effective age can be lower after sound refurbishment or higher after neglect. It is not

a number selected merely to make the desired answer. Total economic life and remaining economic life must be consistent with the same condition and use premise.

In a simplified zero-salvage age-life exercise, PHP 6 million cost new has effective age 12 years and remaining economic life 28 years. The implied total life is 40 years. The supplied fraction is 12 / 40 = 30%, so depreciation is PHP 1.8 million and remaining contribution PHP 4.2 million. Dividing age by remaining life, 12 / 28, is a different and incorrect denominator for this model.

This formula does not establish an actual market life or isolate every category automatically. If the question defines age-life as total accrued depreciation, do not add a breakdown schedule on top. If it is explicitly limited to residual physical deterioration, separately supported nonoverlapping functional and external losses may still be considered. Read the model definition rather than assuming the same percentage means the same thing in every exercise.

A nonzero residual amount changes the depreciable base under a specified straight-line model. With PHP 6 million cost new, PHP 600,000 residual and the same 30% fraction, the deduction is (6 million − 600,000) × 30% = PHP 1.62 million, leaving PHP 4.38 million. That is a separate teaching convention; it does not replace market analysis or imply a guaranteed future sale price.

10 Apply a component breakdown without overlapping losses

Component treatment recognizes that a roof, structural frame and paved area need not have identical conditions or remaining lives. Start from the selected cost-new schedule and allocate it consistently. Distinguish short-lived components from longer-lived structure where relevant, retain current cost support and identify how curable items affect the residual base.

The Luntian schedule starts PHP 6.8 million. It removes PHP 200,000 for the stipulated curable physical slice. Residual building cost is PHP 6.1 million; its supplied physical age-life fraction is 20%, producing PHP 1,220,000. Residual external works cost is PHP 500,000; its supplied fraction is 40%, producing PHP 200,000. Total physical deduction is PHP 1,620,000, leaving PHP 5,180,000.

The three physical entries are deliberately nonoverlapping: the curable slice is excluded from both residual age-life bases, and external works are excluded from the residual building base. The proof is 200,000 + 6,100,000 + 500,000 = 6,800,000 before applying the deductions. A cost-allocation check should precede the calculator operations.

A worksheet that uses PHP 6.8 million × 20%, adds PHP 200,000 for the curable slice and then applies PHP 500,000 × 40% to external works repeats portions of the starting cost. The neatness of the final table does not fix the overlap. Rebuild the bases and explain which condition effects remain in each group.

Physical group	Defined cost base PHP	Fraction / loss	Deduction PHP
Curable slice	200,000	Full supplied loss	200,000
Residual building	6,100,000	20%	1,220,000
Residual external works	500,000	40%	200,000
Total	6,800,000	Distinct effects	1,620,000

11 Measure functional obsolescence against the selected alternative

Functional obsolescence concerns the subject's utility relative to a suitable alternative: layout, specification, technology, capacity or operating efficiency. An unusually large lobby can consume capital and operating resources without providing equivalent participant benefit. Insufficient access or a poorly configured service area can limit usefulness. A physical defect can coexist with a functional problem, but each deduction needs a distinct effect.

Capital inefficiency may already be addressed by selecting replacement rather than reproduction. A residual operating inefficiency can remain in the existing asset despite the modern cost benchmark. For a separate original exercise, an inefficient system causes a stipulated net excess operating cost of PHP 60,000 annually for five years. At a supplied 10% discount rate, the five-year ordinary-annuity factor is 3.79078677, giving approximately PHP 227,447 present loss.

That illustration assumes end-of-year costs, a five-year duration, the supplied discount rate, no escalation and no separately overlapping replacement deduction. It does not capitalize an infinite stream or mandate 10%. If an economical replacement removes the extra cost sooner, a five-year loss may overstate the effect. If a new-system cost and the full unmitigated operating loss are both deducted, examine whether the remedy has already eliminated the latter.

In the Luntian main model, the supported functional deduction is separately stipulated at PHP 300,000 after physical deterioration. It represents residual inefficiency not captured by the chosen replacement cost or the physical schedule. It is not the PHP 600,000 reproduction/replacement gap, and it is not the independent PHP 227,447 operating-cost illustration.

12 Identify external obsolescence and its allocation

External or economic obsolescence arises from influences beyond the asset: changed demand, competing capacity, impaired surroundings or other market circumstances. It can affect a useful and well-maintained property. Good engineering condition does not ensure an unrestricted market contribution. A loss can be temporary or persistent; its duration matters to the model.

An external factor may affect land, improvements or the combined interest. Do not assume every influence is a building-only deduction. A lower site indication derived from current affected-area sales may already reflect a neighbourhood disadvantage. Subtracting the same total-property disadvantage again from the combined cost conclusion can double count the effect.

The Luntian exercise explicitly assigns external loss only to the remaining improvement contribution. After physical loss PHP 1,620,000 and functional loss PHP 300,000, the subtotal is PHP 4,880,000. A stipulated 5% external deduction on that subtotal is PHP 244,000. Depreciated improvements are PHP 4,636,000. The rate is not 5% of the original PHP 6.8 million or of land plus building.

The independent site input is assumed already appropriate to its own market context. The 5% improvement deduction is additionally stipulated nonoverlapping. Real evidence must establish that allocation; a supplied examination condition can make it explicit. Show the base and timing of the percentage because a correct rate on an incorrect subtotal still produces a wrong amount.

13 Add supported site value and test the indication

The Luntian result combines PHP 4,636,000 depreciated improvements with PHP 3,197,000 site value to give PHP 7,833,000. The total new cost plus site would be PHP 9,997,000, and total improvement depreciation is PHP 2,164,000. These cross-checks agree: 9,997,000 − 2,164,000 = 7,833,000. A teaching conclusion may round to about PHP 7.83 million while retaining exact workings.

The site amount represents land-only scope; the main cost-new amount already includes PHP 500,000 external works. Do not add another landscaping or paving allowance at the end. If the land comparables include servicing or improvements also present in the cost schedule, investigate their scope rather than mechanically carrying both amounts forward.

Calculation stage	PHP
Replacement cost new	6,800,000
Physical loss	−1,620,000
Post-physical subtotal	5,180,000
Residual functional loss	−300,000
External-loss base	4,880,000
External loss: 5% of base	−244,000
Depreciated improvements	4,636,000
Compatible site value	+3,197,000
Combined teaching indication	7,833,000

Highest and best use remains relevant. For an original redevelopment example, land under the supported alternative use is PHP 4 million; demolition and removal is PHP 350,000 and recoverable salvage is PHP 50,000. Under that stipulated residual condition model, the indication is PHP 3.7 million. An obsolete building's positive cost does not establish a positive contribution when its removal is required for the supported use.

Compare the cost indication with available transaction or income evidence for compatible interests and conditions. A large discrepancy prompts investigation of site support, utility, cost inclusions and omitted obsolescence. Do not average an unsupported estimate with a supported estimate merely to obtain a smoother conclusion. Explain evidence quality and material limitations.

14 Extract land from improved sales carefully

Extraction derives a residual land amount by subtracting the supported improvement contribution from a compatible improved-property price. The amount removed is depreciated contribution, not automatically construction cost new or accounting book value. Define transaction conditions, included assets, interest and date before performing the subtraction.

A fictional achieved sale is PHP 8.2 million, and an independently supported improvement contribution is PHP 4.7 million. The residual land amount is PHP 3.5 million. If the site is 500 square metres, the residual unit amount is PHP 7,000 per square metre. The precision of division does not remove uncertainty in the improvement estimate.

Using PHP 6.8 million new cost instead would produce PHP 1.4 million land, but that removes an undepreciated new asset from a sale of an existing property. The resulting residual is not automatically meaningful. Likewise, using the land amount to establish improvement contribution and then presenting that same subtraction as independent land verification is circular.

Test residual sensitivity. If the supported improvement contribution could lie from PHP 4.4 million to PHP 5 million, the land residual from the same PHP 8.2 million price ranges from PHP 3.8 million down to PHP 3.2

million. The ranges move in opposite directions. This is an input sensitivity exercise, not a statistical confidence interval.

15 Understand allocation and its limitations

Allocation applies a supported relationship between land and total improved-property value to a compatible total amount. It needs evidence from properties with relevant land and improvement characteristics. A convenient percentage borrowed from a distant or differently developed area does not establish the subject relationship.

In a fictional exercise, an independently supported land-to-total-value ratio of 35% applies to a compatible PHP 8 million improved-property indication. Land is PHP 2.8 million and improvements PHP 5.2 million. Thirty-five percent of total value is different from a land-to-improvement ratio of 35%. In the latter convention, land / improvements = 0.35 and land / total = 0.35 / 1.35, or about 25.9259%.

For the same PHP 8 million total, a 35% land-to-improvement ratio yields about PHP 2,074,074 land and PHP 5,925,926 improvements. Read the numerator and denominator before entering the number. This ambiguity is an examination trap and a practical model-control problem, not a harmless naming difference.

Allocation is vulnerable when improvement age, density, specification and utility differ. It can serve as a reasonableness check where evidence supports the relationship, but an apparent residual is not equivalent to a directly verified vacant-land sale. Compare extraction and allocation transparently; their agreement does not prove independence if they share the same assumptions.

16 Audit the chain from cost evidence to conclusion

A useful workfile contains the defined subject, selected modern alternative or replica, quantity schedule, source dates, cost inclusions, allocation of allowances, inspection findings, loss register, life assumptions, site evidence and complete calculations. Each cost and deduction should have a named base. Preserve source amounts separately from revised model entries so that another reviewer can reproduce the chain.

Run four checks. First, quantities and units must agree. Second, the component cost allocations must reconcile to cost new. Third, total deductions must correspond to distinct effects and correct percentage bases. Fourth, site plus depreciated improvements must match the reported scope. Negative component results or surprising residuals call for investigation, not an unexplained floor or plug.

The Luntian case illustrates disciplined arithmetic under supplied assumptions, rather than actual-market verification. Its construction rates, life fractions, incentive and external rate are fictional. For actual appraisal or examination clause work, consult the applicable national standards and official requirements. The official IVSC architecture links approaches with data, models, documentation and real property interests. [2]

Lesson 26 examines income capitalization and leased interests. A cost indication and an income indication can differ for understandable reasons: participants may not pay new cost for excess capacity, weak income or unsuitable accommodation. Preserve the defined interest and condition when comparing them, and explain the evidence before reconciling the approaches.

17 Ten worked cost approach cases

Attempt each question before reading the solution. Cost inclusions, life conventions and loss support are stipulated where stated. Preserve each unit, deduction base and model convention.

Case 1 Choose the cost premise

Question: A replica costs PHP 7.4m today; an equivalent-utility modern alternative costs PHP 6.8m. Explain the distinction and the danger of deducting the difference from the modern figure.

Solution: Reproduction PHP 7.4m; replacement PHP 6.8m. The gap is PHP 600,000.

Reasoning: The replacement starting point may already exclude the excess capital specification. Another full gap deduction can repeat the same effect; residual inefficiency needs separate support.

Case 2 Complete cost new

Question: Direct building PHP 4.5m; external works 0.5m; professional fees 0.4m; other fees 0.1m; contingency 0.25m; finance 0.35m; separately supported incentive 0.7m. All entries exclude one another. Sum.

Solution: Direct PHP 5m; indirect and incentive PHP 1.8m; cost new PHP 6.8m.

Reasoning: Check inclusions before summation. The exercise separately stipulates allowances; a real quotation may include some of them already.

Case 3 Update a compatible cost

Question: PHP 4.8m at index 120 must be updated to index 135. Use the supplied proportional convention.

Solution: 4.8m × 135 / 120 = PHP 5.4m; increase 12.5%.

Reasoning: Use the index ratio. Fifteen index points is not a 15% cost increase. Apply only to compatible components.

Case 4 Read age and life

Question: Zero-salvage physical-only model: cost PHP 6m, effective age 12 years, remaining life 28 years. Compute deduction and residual.

Solution: Total life 40 years; fraction 30%; deduction PHP 1.8m; residual PHP 4.2m.

Reasoning: The denominator is effective age plus remaining life. The physical-only definition does not automatically cover all functional or external losses.

Case 5 Allocate residual bases

Question: Cost new PHP 6.8m includes a PHP 0.2m curable slice, PHP 6.1m residual building and PHP 0.5m residual external works. Physical fractions are 20% and 40% on the residual groups.

Solution: Physical loss = 0.2m + 6.1m × 20% + 0.5m × 40% = PHP 1.62m; residual PHP 5.18m.

Reasoning: The curable slice is excluded from both residual bases. Component allocations reconcile to PHP 6.8m before deductions.

Case 6 Complete the Luntian indication

Question: After physical loss, PHP 5.18m remains. Functional deduction PHP 0.3m; external loss 5% of the resulting improvement subtotal. Site PHP 3.197m. Calculate.

Solution: Subtotal PHP 4.88m; external PHP 244,000; improvements PHP 4.636m; combined PHP 7.833m.

Reasoning: The external rate applies to the explicitly defined post-physical, post-functional improvement base. Site is added once.

Case 7 Test economic curability

Question: Remedy A costs PHP 120,000 and restores PHP 170,000 benefit; B costs PHP 250,000 and restores PHP 150,000. Assume no other effects.

Solution: A has PHP 50,000 positive net benefit; B has PHP 100,000 negative net benefit.

Reasoning: Under the supplied simple test A is economically justified; B is not. Technical ability to repair does not establish economic curability.

Case 8 Extract site value

Question: An achieved compatible improved sale is PHP 8.2m; independently supported depreciated improvements PHP 4.7m; site 500 sq m.

Solution: Residual site PHP 3.5m; PHP 7,000 per sq m.

Reasoning: Remove supported existing improvement contribution, not undepreciated new cost. The result depends on both transaction and improvement evidence.

Case 9 Separate allocation ratios

Question: Total PHP 8m. Compare a land-to-total ratio of 35% with a land-to-improvement ratio of 35%.

Solution: First: land PHP 2.8m. Second: land = 8m × 0.35/1.35 = about PHP 2,074,074.

Reasoning: Ratios with different denominators cannot be substituted. Under the second convention improvements are about PHP 5,925,926.

Case 10 Value the supported redevelopment condition

Question: Supported alternative-use land PHP 4m; required demolition/removal PHP 350,000; recoverable salvage PHP 50,000. No other costs stipulated.

Solution: 4m − 350,000 + 50,000 = PHP 3.7m.

Reasoning: A standing obsolete structure may reduce the supported land-use indication. Positive historical construction expenditure does not establish positive contribution.

18 Cost approach worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Cost premise and scope

Explain replacement versus reproduction. Identify two inclusion checks needed before adding external works or entrepreneurial incentive.

_____

_____

_____

2 Original cost build-up

Sum the Luntian entries: building 4.5m, external works 0.5m, fees 0.4m and 0.1m, contingency 0.25m, finance 0.35m, incentive 0.7m. Compute direct, additional and all-in totals.

_____

_____

_____

3 Index and unit control

Update compatible PHP 4.8m from index 120 to 135. Separately compute building-only PHP 4.5m/200 sq m and all-in PHP 6.8m/200 sq m. Explain why the rates differ.

_____

_____

_____

4 Age-life convention

For PHP 6m, age 12 and remaining life 28, compute zero-residual depreciation. Then use a separately specified PHP 600,000 residual amount on the depreciable base. Compare.

_____

_____

_____

Depreciation and site worksheet continued

5 Breakdown schedule

Compute physical loss: curable 0.2m; residual building 6.1m at 20%; residual external works 0.5m at 40%. Prove the original cost allocation and calculate the remaining subtotal.

_____

_____

_____

6 Complete and reconcile

From the remaining subtotal subtract functional PHP 0.3m and external 5% of the post-functional amount. Add site PHP 3.197m. Reconcile against total cost new plus site less total losses.

_____

_____

_____

7 Extraction sensitivity

Sale PHP 8.2m; improvement contribution PHP 4.4m to PHP 5m. Calculate the land residual endpoints and explain their relationship to the improvement input.

_____

_____

_____

8 Allocation and overlap audit

For total PHP 8m, distinguish 35% land/total from 35% land/improvements. Identify why depreciating all PHP 6.8m then adding the full curable and external-work deductions is defective.

_____

_____

_____

19 Review and examination checks

Model control	Examination check
Cost premise	Replica or equivalent utility?
Unit rate	Building area and specification match?
Inclusions	External works and allowances counted once?
Index	Ratio rather than index-point percentage?
Profit	Contractor and participant return overlap?
Depreciation	Value loss or bookkeeping expense?
Age-life	Total life equals age plus remaining life?
Curable slice	Excluded from residual component bases?
Functional loss	Already removed by replacement premise?
External loss	Correct subtotal and allocation?
Site amount	Land-only and compatible interest?
Extraction	Existing contribution rather than cost new?
Allocation	Land/total or land/improvements?
Reconciliation	Evidence investigated before weighting?

Explain the cost chain

Define the subject and cost alternative; support costs and inclusions; classify distinct losses and show their bases; establish compatible site value; combine the amounts and explain material uncertainty. Arithmetic checks do not substitute for evidence.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. Which starting cost targets equivalent utility from a suitable current alternative?

A. Historical purchase cost

B. Replacement cost

C. Accounting carrying amount

D. Reproduction cost

2. A current replica costs PHP 7.4m; replacement costs PHP 6.8m. What is the principal risk of subtracting their PHP 0.6m gap from the replacement starting point?

A. It establishes site value

B. It always corrects physical deterioration

C. It converts cost into a sale price

D. It may duplicate a capital inefficiency already excluded

3. A contractor rate explicitly includes contractor profit. Before adding entrepreneurial incentive, which is most appropriate?

A. Identify the distinct risk and return not already included

B. Add the same contractor profit again

C. Exclude all indirect costs

D. Use book depreciation

4. Building 4.5m, external works 0.5m and separately defined other allowances 1.8m produce which cost new?

A. PHP 6.3m

B. PHP 5m

C. PHP 6.8m

D. PHP 7.3m

5. Compatible PHP 4.8m at index 120 updated to index 135 equals:

A. PHP 4.95m

B. PHP 5.52m

C. PHP 5.4m

D. PHP 6.0m

6. Which best describes valuation depreciation?

A. Relevant loss from the selected cost-new benchmark

B. Always accumulated book depreciation

C. Always tax depreciation

D. The original land purchase price

7. Zero-salvage age-life model: effective age 12 and remaining life 28. The depreciation fraction is:

A. 12%

B. 42.8571%

C. 70%

D. 30%

8. PHP 6m cost new at a stipulated 30% depreciation fraction with zero residual leaves:

A. PHP 1.8m

B. PHP 4.2m

C. PHP 5.4m

D. PHP 6m

9. PHP 6m cost, PHP 0.6m residual and 30% depreciation on the depreciable base gives a deduction of:

A. PHP 4.38m

B. PHP 1.8m

C. PHP 0.18m

D. PHP 1.62m

10. Repair costs PHP 250,000 and restores PHP 150,000 benefit, with no other effects. Which conclusion fits the supplied economic test?

A. Technically possible repair is not economically justified

B. Repair is economically curable solely because possible

C. Loss must equal PHP 250,000 in every basis

D. Land must be depreciated by PHP 100,000

11. Curable loss 0.2m, residual building 6.1m at 20%, external works 0.5m at 40%. Total physical loss is:

A. PHP 1.42m

B. PHP 1.62m

C. PHP 1.76m

D. PHP 1.36m

12. Cost new 6.8m less physical 1.62m and functional 0.3m leaves which pre-external subtotal?

A. PHP 4.636m

B. PHP 5.18m

C. PHP 4.88m

D. PHP 4.58m

13. External loss is stipulated at 5% of PHP 4.88m improvement subtotal. The deduction is:

A. PHP 244,000

B. PHP 340,000

C. PHP 399,850

D. PHP 259,000

14. Depreciated improvements PHP 4.636m plus compatible site PHP 3.197m give:

A. PHP 9.997m

B. PHP 7.833m

C. PHP 7.589m

D. PHP 4.636m

15. Which best describes functional obsolescence?

A. Always a land-only loss

B. Only physical corrosion

C. Every neighbourhood market change

D. Utility inefficiency relative to a suitable alternative

16. Net excess cost PHP 60,000 annually for five years, supplied ordinary-annuity factor 3.79078677, gives approximately:

A. PHP 600,000

B. PHP 300,000

C. PHP 227,447

D. PHP 15,828

17. Compatible improved sale PHP 8.2m less independently supported depreciated improvements PHP 4.7m yields site:

A. PHP 3.5m

B. PHP 1.4m

C. PHP 4.7m

D. PHP 12.9m

18. A supported land/total-value ratio of 35% applied to PHP 8m gives land:

A. PHP 10.8m

B. PHP 2.074074m

C. PHP 5.2m

D. PHP 2.8m

19. A supported land/improvement-value ratio of 35% and total PHP 8m give land approximately:

A. PHP 2.8m

B. PHP 2.074074m

C. PHP 5.925926m

D. PHP 3.5m

20. Supported redevelopment land PHP 4m, removal PHP 0.35m, salvage PHP 0.05m. Supplied condition indication is:

A. PHP 3.6m

B. PHP 4.4m

C. PHP 3.7m

D. PHP 4m

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	B
2	D	12	C
3	A	13	A
4	C	14	B
5	C	15	D
6	A	16	C
7	D	17	A
8	B	18	D
9	D	19	B
10	A	20	C

1. B Replacement concerns a suitable alternative with equivalent utility; reproduction concerns a replica.

2. D The selected cheaper alternative may already remove that excess specification. Residual shortcomings need separate evidence.

3. A The allowances need distinct scope and support; contractor profit and participant incentive are not interchangeable labels.

4. C 4.5+0.5+1.8=PHP 6.8m. All amounts are stipulated nonoverlapping.

5. C 4.8×135/120=PHP 5.4m, a 12.5% increase.

6. A The value adjustment reflects condition, utility and external effects; ledger expense is a different measure.

7. D Total life=12+28=40; 12/40=30%. Remaining life alone is not the denominator.

8. B Deduction=6m×30%=1.8m; remaining=PHP 4.2m.

9. D (6m−0.6m)×30%=PHP 1.62m. PHP 4.38m is the remaining amount.

10. A Cost exceeds the stipulated benefit by PHP 100,000; technical feasibility alone does not prove economic curability.

Answer explanations continued

11. B 0.2+1.22+0.2=PHP 1.62m. The starting cost groups are nonoverlapping.
12. C 6.8−1.62−0.3=PHP 4.88m.
13. A 4.88m×5%=PHP 244,000. Do not apply the rate to a different base.
14. B 4.636+3.197=PHP 7.833m. The site is added once.
15. D Functional loss concerns design, specification, capacity or operating efficiency; physical and external causes differ.
16. C 60,000×3.79078677≈PHP 227,447. Duration and discount assumptions define the model.
17. A Extraction removes the existing improvement contribution; 8.2−4.7=PHP 3.5m.
18. D 8m×35%=PHP 2.8m. The denominator is total value.
19. B Land share of total=0.35/1.35; multiply by PHP 8m. The ratio is not land/total.
20. C 4−0.35+0.05=PHP 3.7m. A standing obsolete building can impose removal costs.

Worksheet model responses

Response 1

Replacement prices equivalent utility using a suitable current alternative; reproduction prices a replica. Check whether external works are already included, contractor profit is in rates, and finance or developer-return allowances overlap. Define the subject interest and area convention.

Response 2

Direct = 4.5m + 0.5m = PHP 5m. Additional = 0.4m + 0.1m + 0.25m + 0.35m + 0.7m = PHP 1.8m. All-in PHP 6.8m. The supplied entries are separately defined; evidence must establish that separation in actual work.

Response 3

Updated amount = 4.8m × 135/120 = PHP 5.4m. Building-only PHP 22,500/sq m; all-in PHP 34,000/sq m. Different inclusions explain the difference; the index does not automatically apply to land or every allowance.

Response 4

Total life 12+28=40; fraction 30%. Zero residual: PHP 1.8m deduction and PHP 4.2m remaining. With stipulated PHP 0.6m residual: (6m−0.6m)×30%=PHP 1.62m deduction; PHP 4.38m remaining. These are alternative models, not cumulative deductions.

Response 5

Original allocation 0.2m+6.1m+0.5m=PHP 6.8m. Losses 0.2m+1.22m+0.2m=PHP 1.62m. Remaining PHP 5.18m. The curable slice is excluded from residual age-life bases.

Response 6

5.18m−0.3m=PHP 4.88m; 5% external=PHP 244,000; improvements PHP 4.636m; total PHP 7.833m. Losses 1.62m+0.3m+0.244m=PHP 2.164m. New cost+site PHP 9.997m−losses PHP 2.164m=PHP 7.833m.

Response 7

At improvements PHP 4.4m, land=PHP 3.8m. At improvements PHP 5m, land=PHP 3.2m. Higher deducted contribution reduces the residual. The interval is sensitivity to input uncertainty, not a probability statement.

Response 8

Land/total35% gives PHP 2.8m. Land/improvements35% gives PHP 8m×0.35/1.35≈PHP 2.074074m. A whole-cost physical allowance includes slices then deducted again separately. Exclude affected slices, define component bases and trace nonoverlapping losses.

22 Essential terms and formula review

Replacement cost Cost of a suitable current asset offering equivalent utility.

Reproduction cost Current cost of recreating a replica.

Cost new Selected benchmark before relevant subject losses.

Valuation depreciation Reduction reflecting condition utility and external influences.

Effective age Condition-related age within a defined model.

Economic life Period of economically relevant utility under the premise.

Curability Economic justification of a feasible remedy.

Functional obsolescence Utility inefficiency relative to the selected alternative.

External obsolescence Loss arising from influences beyond the asset.

Extraction Improved price less supported improvement contribution.

Allocation Supported component-to-total or component ratio relationship.

Teaching relationship	Defined formula
Cost update	Compatible prior cost × new index / prior index
Zero-residual age-life	Cost × effective age / total economic life
Total life	Effective age + remaining economic life
Residual-value convention	(Cost − residual) × life fraction
Component physical loss	Curable loss + distinct residual component losses
Main external loss	Post-physical post-functional improvements × 5%
Cost indication	Supported site + depreciated improvements
Extraction	Compatible improved amount − existing improvement contribution
Land/total ratio r	Land = total × r
Land/improvements ratio k	Land = total × k / (1 + k)

The formulas describe supplied teaching models. Their inputs, allocation and economic relevance require evidence. They do not prescribe market lives, cost rates or national assessment schedules.

23 Sources and preparation status

Research reviewed on 12 October 2026. The narrative, Luntian build-up, depreciation schedule, land exercises, cases and assessment items are original educational work. They are not actual or recalled PRC examination questions.

To review the chapter, explain the cost premise, rebuild the original cost schedule, identify distinct losses and trace the site amount. Use the worksheet to practise age-life denominators and land ratio conventions. Recheck every starting subtotal before applying a percentage.

For actual assignments and clause-specific examination preparation, use the applicable full Philippine valuation standards and official requirements. The international sources below support the conceptual framework; this chapter is not a complete domestic clause audit or a statement of future examination rules.

1 IVSC cost and depreciation framework

IVSC-authored redline effective 31 January 2025, hosted by ICAEW. IVS 103 Appendix A30 addresses cost methods, cost considerations and depreciation. Selected current text on printed pages 63–66 was visually checked separately from deleted wording.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 IVSC official standards architecture

Official page identifies IVS 103 approaches, IVS 104 inputs, IVS 105 models, IVS 106 documentation, and IVS 400 real property interests.

https://ivsc.org/standards/

REALEX

Lesson 26

Income Capitalization and Leased Interests

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Build an income indication from the rights being valued, supported rent and expense evidence, and a consistent conversion model. Preserve the distinction between a stabilized benchmark and the benefits of an existing lease.

This lesson develops an original Sampaguita rent roll and operating statement, gross and net conversion tools, and the separate Mabini term-and-reversion example. It includes ten worked cases, a two-page worksheet and twenty original questions with explained answers.

All properties, rents, vacancy allowances, expenses and yields are fictional teaching assumptions. The calculations illustrate explicit models rather than actual market rates, legal opinions or a property appraisal.

Your learning goals

- Define the owner and tenant interests and relevant income.
- Distinguish contract rent from a market-rent estimate.
- Build potential and occupied contractual rent schedules.
- Normalize vacancy collection loss and ancillary income.
- Construct consistent before- and after-reserve NOI.
- Separate operations financing depreciation and capital works.
- Explain stabilization and transition costs.
- Distinguish gross multipliers capitalization and discount rates.
- Extract compatible ratios and apply direct capitalization.
- Value finite contract benefits and owner reversion.
- Examine a tenant advantage and transfer restrictions.
- Audit incentives timing sensitivity and model definitions.

Study plan: Allow four to five hours in two sessions. Read sections 1–8 for the lease and operating statement, then sections 9–16 for rates and interests. Attempt the cases, worksheet and practice test before checking the responses.

1 Connect income to the interest being valued

The income approach relates the present value of an asset to the benefits expected from holding it. For real estate those benefits may include rent, appropriate rent savings and an eventual reversion. A property with a lease must be examined through the rights and obligations being valued. The owner's interest subject to a lease and the tenant's lease interest do not receive the same cash flows.

A useful opening question is: whose income is this, over what period, and under which terms? Gross tenant payments are not automatically the owner's net income. Hotel receipts are not automatically real-property rent. A construction cost does not establish the rent a participant would pay. Define the property interest, valuation date, use and basis before building the income model.

The checked international framework links an income indication to expected benefits and addresses contract versus market rent when valuing leased interests. It also distinguishes property-specific income from trading cash flows that include other assets. [1] The original exercises below use supplied assumptions; the fictional rents, vacancy, expense rates and yields are not recommended Philippine market parameters.

Lesson 23's evidence discipline remains essential. Verify lease documents, collection histories, operating records and comparable transactions. A complete rent roll can still describe an unrepresentative year or a financially weak tenant. The model must explain how observed records become the selected income forecast.

2 Read the lease before interpreting the rent

A rent roll summarizes information; it does not replace the lease. Record premises, rentable-area convention, tenant, commencement, expiry, rent, escalation dates, concessions, renewal provisions and expense responsibilities. Identify arrears, deposits and side agreements separately. A lease with a large face rent and generous incentives can produce less benefit than its headline suggests.

Distinguish contract rent, the payment under the actual agreement, from an estimate of market rent on specified comparable terms. A market-rent comparison needs consistent duration, permitted use, condition, payment timing and allocation of expenses. PHP 18,000 monthly with the owner paying common expenses is different from PHP 18,000 with those expenses passed to the tenant.

For valuation terminology, this lesson uses owner's interest subject to lease for the lessor's rights and tenant's lease interest for the lessee's rights. The labels leased fee and leasehold may appear in educational questions; always identify the underlying rights. They do not substitute for the applicable Philippine legal analysis of a particular contract.

Investigate enforceability, assignment restrictions, break rights, renewal options and liabilities where material. The existence of an apparently favourable rent does not establish that a tenant can transfer the benefit. A lease liability in an accounting statement is also not automatically the market value of the lease interest. The valuation scope and accounting recognition question differ.

3 Construct the original Sampaguita rent roll

Sampaguita Court is a fictional completed rental property with eight identical studios and two retail bays. The educational valuation date is 30 September 2026. The example's first model estimates a stipulated stabilized market-rent benchmark for the defined whole-property interest. It assumes an appropriate legal use and compatible expense terms, excludes business goodwill and movable tenant assets, and uses annual Philippine pesos.

Each studio has supplied market rent PHP 7,500 monthly. Six are occupied on contracts of PHP 7,000 monthly and two are vacant. The two retail bays have supplied market rent PHP 18,000 monthly each. Bay A's current

contract is PHP 16,500 monthly; Bay B's is PHP 18,000. These actual contract conditions must be considered in a current lease-specific opinion; they are not silently replaced by the benchmark.

The occupied studios schedule PHP 504,000 annually: 6 × 7,000 × 12. The two occupied retail bays schedule PHP 414,000 annually: 16,500 × 12 + 18,000 × 12. Occupied contractual annual rent totals PHP 918,000 before arrears, incentives or collection losses. Vacant space contributes no current contract rent merely because a market-rent estimate exists.

The stabilized benchmark prices all eight studios at the supplied market rate: 8 × 7,500 × 12 = PHP 720,000. Retail potential is 2 × 18,000 × 12 = PHP 432,000. Total potential annual rental income is PHP 1,152,000. This is a model amount assuming full rental potential, not an assertion that every unit is occupied or that those payments are currently enforceable.

Rent-roll group	Market monthly basis PHP	Annual potential PHP	Occupied contract PHP/year
8 studios	8 × 7,500	720,000	6 × 7,000 × 12 = 504,000
Retail bay A	18,000	216,000	16,500 × 12 = 198,000
Retail bay B	18,000	216,000	18,000 × 12 = 216,000
Total	Annual figures at right	1,152,000	918,000

Two studios are currently vacant. Market-rent potential is a separate stipulated benchmark; it does not replace current enforceable rent in a lease-specific opinion.

4 Separate potential rent, vacancy and collection loss

Potential gross rental income is the rental amount before the specified occupancy and collection deductions. Define its basis clearly: market rent for all relevant space, contractual scheduling or another stated convention. A loss allowance must match that starting income. Starting with occupied rent and then deducting another full property vacancy allowance can remove the same vacancy twice.

The Sampaguita benchmark applies a single supplied combined vacancy-and-credit allowance of 8% to PHP 1,152,000 rental potential. The deduction is PHP 92,160 and effective rental income PHP 1,059,840. Because the allowance explicitly combines vacancy and credit effects, do not deduct an additional credit-loss percentage for the same expected shortfall.

Current studio vacancy is two of eight studios, or 25% by studio count. That observation does not establish a long-run 25% property-wide economic loss. The retail bays have different rental amounts and are occupied. Even an area-weighted physical vacancy rate differs from a revenue-weighted loss. Examine the definition before converting an occupancy statistic into a rent deduction.

For a separate sequential convention, 8% vacancy followed by 2% collection loss on the remaining rent gives an overall factor of 0.92 × 0.98 = 0.9016. Total loss is 9.84% of the original base, rather than 10%. If both deductions are expressly defined on the original potential base, the loss would instead be 10%. Neither convention should be assumed without reading the supplied model.

5 Include ancillary income and recoveries consistently

Ancillary income can include parking, storage or other property-related receipts. Establish whether the amount is gross or net, recurring or exceptional, and subject to the same vacancy allowance. Reimbursed utilities and

service charges require a consistent treatment of the related expense. Do not count a recovery as income while omitting an expense that the owner pays to earn it.

The Sampaguita example adds PHP 36,000 annual ancillary income after the rental loss allowance. This amount is stipulated as net recurring property income, already allowing for its own operating costs and collection effects. Effective gross income under the selected presentation is PHP 1,095,840: effective rental PHP 1,059,840 plus ancillary PHP 36,000.

A different presentation can show a gross recovery PHP 120,000 and matching recoverable expense PHP 120,000. Gross presentation adds both; net presentation excludes both. The net operating result is identical if recoverability, timing and credit risks are truly equivalent. Ratios based on gross revenue can change, so a comparable expense ratio must use the same presentation.

A refundable security deposit is not recurring rent simply because cash reached the bank. Prepaid rent must be allocated to the relevant period. Tenant arrears require assessment rather than automatic full collection. VAT and other tax treatment must fit the assignment and participant assumptions; this lesson does not prescribe rates or interpret a particular taxpayer's obligations.

6 Normalize ordinary operating expenses

Operating expenses in this model are costs of sustaining the property's relevant recurring income before financing and owner-specific income tax. Identify ordinary repairs, property-related taxes, insurance, owner-paid utilities and management. The terms in the lease determine who bears each cost. A net lease does not imply that every cost and capital obligation disappears from the owner's interest.

The Sampaguita annual budget supplies property tax PHP 72,000; insurance PHP 24,000; owner-paid common utilities PHP 36,000; ordinary maintenance PHP 60,000; and management at 5% of effective gross income. Management is therefore PHP 54,792, not 5% of rental potential. Ordinary expenses before a replacement reserve total PHP 246,792.

The model then deducts a separately supplied replacement reserve PHP 36,000 annually. Total deductions are PHP 282,792. The selected after-reserve net operating income is PHP 813,048. Before reserve, the subtotal is PHP 849,048. Both should be named clearly because a capitalization rate extracted using one convention cannot automatically be applied to the other.

Original annual operating statement	**PHP**
Rental potential	1,152,000
Combined vacancy and credit: 8%	−92,160
Effective rental income	1,059,840
Net ancillary income	+36,000
Selected effective gross income	1,095,840
Ordinary expenses before reserve	−246,792
Before-reserve NOI	849,048
Defined replacement reserve	−36,000
Selected after-reserve NOI	813,048

The reserve is a defined recurring provision for periodic replacement under this exercise. It is not the same as the actual cash outlay on a new roof in a single year. Practices differ in where reserves appear. The important model control is consistent income and rate definitions, together with a separate treatment of material capital obligations where the selected method requires them.

7 Separate property income from debt, depreciation and capital works

Mortgage interest and principal service concern the financing structure. The unlevered property income model excludes both. Accounting depreciation allocates recognized cost and is not a current cash operating payment. Owner-specific income tax also differs from the property's ordinary operating schedule. A valuation using equity cash flow needs an appropriate equity rate and debt treatment; it should not mix those entries with an unlevered property yield.

An independent normalization illustration begins with a ledger expense total PHP 440,000. It comprises ordinary recurring operations PHP 180,000; debt service PHP 90,000; accounting depreciation PHP 50,000; and an actual capital roof replacement PHP 120,000. Removing the three nonoperating entries leaves PHP 180,000 recurring expense before any separately supported reserve or other adjustments.

This arithmetic does not imply that roof replacement is economically irrelevant. It means the amount needs treatment compatible with the selected model. A DCF may show the actual capital outlay in its expected year. A stabilized model may use a supported annual provision and other adjustments. Deducting the full roof payment and a reserve designed to cover that same event can overlap unless their distinct purposes are explained.

An owner managing personally still provides a management service. A zero ledger salary does not establish a zero participant expense. Likewise, a one-time repair year may not represent typical recurring maintenance. Normalize with evidence, not a convenient blanket ratio or an instruction to erase every inconvenient expense.

8 Explain what stabilization does and does not establish

Stabilization describes a supported representative operating condition rather than an unusually high or low actual year. It can involve typical occupancy, rent, collections and expenses. It is not a promise of perfect operation, and it does not authorize discarding binding lease terms. A supported market-rent benchmark is useful, but the current interest may differ from that benchmark.

The Sampaguita benchmark yields PHP 813,048 after-reserve NOI under its stated market-rent and stabilized-loss conditions. Its current occupied contract schedule of PHP 918,000 is a different starting figure. Do not insert that contractual amount into the market-rent expense model and describe the result as the same stabilized estimate without revisiting losses, ancillary income and expense behaviour.

A current property with vacancies may require letting time, incentives, fit-out expenditure and tenant risk to reach a stabilized condition. The present value of that property can differ from the value of a property already operating at the benchmark. A broad income capitalization shortcut may be inappropriate where these transition effects are material or leases have substantial future changes.

Document a bridge from historical records to the stabilized forecast. Show each adjustment, its reason and its source. A scenario labelled stabilized cannot hide absent rent evidence, unsupported collection assumptions or missing costs. If uncertainty cannot be reasonably resolved, report its effect on the conclusion and investigate further.

9 Distinguish three conversion tools

A gross-income multiplier relates a compatible property price to a specified gross income. An overall capitalization rate relates a compatible annual net income to value. A discount rate converts dated future cash flows to present value. Their names describe different numerator, denominator and timing conventions. One number should not be substituted for another because it appears in a percentage or ratio format.

An annual gross-income multiplier of 7.5 means price divided by the defined annual gross income equals 7.5. A capitalization rate of 8% means defined annual NOI divided by value equals 0.08 under that convention. A discount rate of 10% is applied to individual dated cash flows; the present-value factor for one year is 1 / 1.10.

The reciprocal of a gross multiplier is a gross yield, not automatically a net capitalization rate. Similarly, the reciprocal of a net-income multiplier is a net capitalization rate only when definitions, periods and cash-flow conventions match. Operating costs create a real economic difference between gross and net income; a vocabulary change does not remove them.

Monthly and annual multipliers have different scales. A PHP 9 million price divided by PHP 1.2 million annual gross income produces 7.5. Dividing the same price by PHP 100,000 monthly gross income produces 90. The underlying price is unchanged; the denominator period differs by twelve. Always write the period beside the multiplier.

Conversion tool	Defined relationship	Period / scope
Annual gross multiplier	Price / annual defined gross income	Gross income must match
Cap rate	Annual defined NOI / value	Net convention must match
Discount rate	CF at t / (1 + rate)^t	Apply to dated cash flows

10 Apply direct capitalization with a consistent numerator

Under a defined direct-capitalization model, value equals selected annual NOI divided by an appropriate capitalization rate. A rate extracted from market evidence can reflect expected income behaviour and participant pricing rather than merely the time value of money. The method requires a representative numerator and relevant rate evidence for the same property interest and income convention.

The Sampaguita benchmark uses an illustrative after-reserve rate of 8%. The calculation is PHP 813,048 / 0.08 = PHP 10,163,100. This is the stabilized educational benchmark, not an actual lease-specific appraisal of the currently occupied contracts. The combined land and improvement property income is capitalized; another full land amount is not automatically added afterward.

An independent comparable with verified compatible annual after-reserve NOI PHP 800,000 and price PHP 10 million implies an 8% rate. A second with PHP 760,000 and price PHP 9.5 million also implies 8%. Those arithmetic examples establish supplied ratios, not a verified market rate for Sampaguita. Real selection must evaluate interest, lease duration, location, condition, growth, risk and expense definitions.

Using before-reserve PHP 849,048 with a rate calibrated to after-reserve income gives PHP 10,613,100, or PHP 450,000 more than the selected model. The difference is PHP 36,000 / 0.08. This illustrates an inconsistent numerator; it does not prove that every before-reserve convention is wrong. A consistent before-reserve income and corresponding rate can be a different valid model.

11 Use gross multipliers without concealing costs

A gross multiplier offers a simpler comparison when evidence is relevant and income definitions match. It does not make operating expenses irrelevant. Two properties with the same gross rent can have different owner-paid expenses, capital needs, risk and lease terms. A useful gross comparison needs sufficient similarity or an explained adjustment for those differences.

In a separate original exercise, a compatible PHP 9 million sale with PHP 1.2 million annual gross rental potential implies a multiplier of 7.5. Applying that stipulated multiplier to Sampaguita's PHP 1,152,000 annual rental potential gives PHP 8,640,000. This separate illustration is not reconciled as equally reliable with the NOI benchmark; no actual comparable evidence is being represented.

Do not apply a potential-income multiplier to effective income without evaluating the definition. Multiplying Sampaguita effective gross income PHP 1,095,840 by the same 7.5 produces PHP 8,218,800, but it has changed the denominator scope and added ancillary income to a multiplier based on rental potential. Correct multiplication cannot validate a mismatched comparison.

A multiplier's apparent convenience can amplify weak rental verification. Recorded collections, advertised rents and contractual scheduling are different income statuses. Match price and income dates and establish whether concessions, arrears, recoveries and non-property business income are included. Keep a gross-multiplier check subordinate to the evidence supporting its use.

12 Distinguish capitalization and discount rates through timing

A discount model values each future benefit at its expected date. With end-of-year cash flows, the present value of a year-t amount is that amount divided by (1 + the supplied discount rate) raised to t. A capitalization model converts a representative annual amount through a compatible rate. The rates can coincide in a deliberately restricted model, but are not generally interchangeable.

An original three-year income-only illustration pays PHP 900,000 at the end of each year, with no terminal benefit included in this component calculation. At a supplied 10% rate the ordinary-annuity factor is 2.48685199, and present value is about PHP 2,238,167. PHP 900,000 / 0.10 = PHP 9 million would value a very different perpetual level-income model.

For a deliberately simplified perpetuity, next-year income PHP 1.2 million, constant annual growth 2% and discount rate 10% yield an 8% capitalization factor under the constant-growth relationship: 10% − 2% = 8%. The resulting amount is PHP 15 million. This requires indefinite compatible growth, appropriate income definition and a discount rate above growth. It does not establish that every observed cap rate equals a discount rate minus a convenient growth guess.

Expected growth, capital replacement, risk and terminal assumptions influence the relationship. Finite lease terms and changing contractual rent often call for explicit timing. Lesson 27 develops fuller DCF models; this lesson uses small cash-flow examples to make interest and rate consistency visible.

13 Value an owner's interest subject to a below-market lease

The separate Mabini lease example is not the Sampaguita rent roll. It concerns a fictional whole asset producing flat annual net market benefit PHP 1.2 million indefinitely under the supplied model. Its unencumbered benchmark is PHP 12 million using a 10% level-perpetuity rate. There is no growth, transaction cost, additional capital outlay or owner-specific tax in this deliberately restricted exercise.

An existing noncancellable lease has three years remaining and produces annual net contract benefit PHP 900,000 to the owner. Payments occur at year-end. On expiry, the property immediately returns to the PHP

1.2 million market benefit stream with no letting delay. Use a supplied 10% discount rate for all exercise benefits, and assume compatible expense responsibilities and no default.

The owner receives three contractual payments plus the reversion at the end of year 3. The contract-payment present value is PHP 900,000 × 2.48685199 = about PHP 2,238,167. The end-year-3 reversion is PHP 1.2 million / 10% = PHP 12 million, because that terminal amount represents benefits starting in year 4. Its present value is 12 million / 1.10 cubed = about PHP 9,015,778.

The owner's interest indication is therefore about PHP 11,253,944 before rounding. Capitalizing PHP 900,000 at 10% forever would produce PHP 9 million and omit the market reversion. Capitalizing market benefit immediately at PHP 12 million would ignore the three-year contractual shortfall. The defined lease term explains why both shortcuts misstate this exercise.

Mabini owner component	Future amount / rule	Present value PHP
Years 1–3 net contract	900,000 × annuity factor	2,238,166.79
End-year-3 reversion	1,200,000 / 10% = 12,000,000	9,015,777.61
Owner total	Unrounded component sum	11,253,944.40

14 Examine the tenant's benefit and its restrictions

In the Mabini example the tenant's supplied annual net benefit relative to market terms is PHP 300,000: PHP 1.2 million minus PHP 900,000. Assume that this favourable use right is transferable without cost or restriction, has no additional tenant obligation, ends after three years and bears the supplied 10% discount rate. These conditions make the following benefit calculation meaningful.

The tenant's interest indication is PHP 300,000 × 2.48685199 = about PHP 746,056. This is a time-limited favourable benefit, not a right to the owner's reversion. Capitalizing PHP 300,000 as perpetual would overstate the three-year benefit. Adding the whole asset's terminal value to the tenant's interest would value rights the tenant does not hold.

Under the exercise's identical-rate, no-friction assumptions, PHP 11,253,944 owner benefit plus PHP 746,056 tenant benefit reconciles to the PHP 12 million unencumbered benchmark, subject to rounding. This is an arithmetic property of the supplied model, not a universal rule that all separately appraised interests must sum to an unencumbered value. Different constraints, risk, expenses and transaction effects can break that equality. [1]

An above-market agreement can reverse the relative benefit. A tenant may carry a disadvantage rather than a saleable asset, subject to actual obligations and options. Do not force every lease interest to be positive or assume a negative calculation is automatically the legally enforceable liability amount. Investigate the particular rights and valuation question.

15 Normalize incentives, escalations and reversion assumptions

A rent-free period changes the timing of benefits. A face monthly rent PHP 20,000 over a 24-month term with the first three months free gives total face receipts PHP 420,000. An undiscounted spread over 24 months is PHP 17,500 monthly. That is a simple effective-average convention; it is not the same as discounting actual monthly payments or deriving fully equivalent market rent.

Annual escalation also creates a schedule. An original three-year contract starts PHP 100,000 annually and increases 5% at each anniversary: years 1, 2 and 3 are PHP 100,000, PHP 105,000 and PHP 110,250. The

increase compounds on the previous contract amount. A fixed PHP 5,000 increment would instead produce PHP 110,000 in year 3. Read whether the clause defines a rate, a fixed step or an index.

Reversion is the benefit retained after the explicit lease or forecast period. Its value must reflect the appropriate subsequent income, terminal yield, capital needs, sale costs and lease-up conditions under the selected model. Counting year-3 rent in the contractual series and using a reversion that also includes year-3 rent can duplicate a period. In Mabini, the year-3 terminal value begins with year-4 income.

Options and uncertainty can make the simple schedule inadequate. Renewal rights, tenant breaks, assignment restrictions, incentives and expected credit losses affect timing and risk. Do not infer a new legally binding term from a market-rent forecast. Describe the assumption and investigate the contract before presenting the result.

16 Test sensitivity and audit the conclusion

Sensitivity shows how selected inputs affect an indication; it does not assign probabilities without a supported statistical model. Holding Sampaguita NOI PHP 813,048 constant, a 7.5% cap rate gives PHP 10,840,640. At 8% the amount is PHP 10,163,100; at 8.5% it is about PHP 9,565,271. A higher rate lowers value for the same positive income.

The after-reserve expense ratio is PHP 282,792 / PHP 1,095,840, or approximately 25.81%. The selected NOI margin is approximately 74.19%. These are checks under the chosen presentation, not prescribed industry targets. Net recoveries and reserve classification can change reported ratios, so compare them only with compatible definitions.

Supplied cap rate	Constant NOI PHP	Benchmark indication PHP
7.5%	813,048	10,840,640
8.0%	813,048	10,163,100
8.5%	813,048	9,565,271 rounded

Audit the full chain: lease rights, rent evidence, income period, loss allowances, ancillary income, expense responsibilities, reserve convention, rate evidence, transition effects and reversion timing. Confirm that any lease-specific adjustment changes the corresponding cash flows and uses a relevant rate. Explain why a benchmark does or does not represent the current defined interest.

The Sampaguita and Mabini examples intentionally answer different questions. The first teaches a stabilized NOI benchmark; the second isolates finite contractual rent and reversion. Preserve that distinction in the cases and worksheet. Lesson 27 expands the income approach into forecast cash flows and development property, where dates, capital outlays and terminal assumptions need fuller treatment. [2]

17 Ten worked income and lease cases

Attempt each question before reading the solution. Income definitions, lease terms and rate assumptions are stipulated where stated. Preserve each unit, income base and model convention.

Case 1 Build two rent schedules

Question: Eight studios have market rent PHP 7,500/month; six occupied contracts pay PHP 7,000. Two shops have market rent PHP 18,000 each; occupied contracts are PHP 16,500 and PHP 18,000. Calculate annual market rental potential and occupied contractual schedule.

Solution: Market potential: studios PHP 720,000 plus shops PHP 432,000 = PHP 1,152,000. Occupied contract: studios PHP 504,000 plus shops PHP 414,000 = PHP 918,000.

Reasoning: Potential income and actual occupied contracts answer different questions. Vacant units do not produce contract receipts simply because market rent is estimated.

Case 2 Apply the defined loss allowance

Question: Sampaguita rental potential PHP 1,152,000 receives a single combined vacancy-and-credit allowance 8%. Find the deduction and effective rental income.

Solution: Loss PHP 92,160; effective rental PHP 1,059,840.

Reasoning: The allowance already combines the two losses. Another credit deduction for the same shortfall would overlap.

Case 3 Add net ancillary income

Question: Effective rental PHP 1,059,840 plus PHP 36,000 net ancillary income already accounting for its costs and losses. Calculate selected EGI.

Solution: PHP 1,095,840.

Reasoning: The ancillary amount is already net under the stipulated convention; do not repeat its own operating or collection deductions.

Case 4 Construct after-reserve NOI

Question: EGI PHP 1,095,840. Tax 72,000; insurance 24,000; utilities 36,000; maintenance 60,000; management 5% of EGI; reserve 36,000. Compute expenses and NOI.

Solution: Management PHP 54,792; before-reserve expenses PHP 246,792; total with reserve PHP 282,792; after-reserve NOI PHP 813,048.

Reasoning: The management denominator is EGI. The reserve convention must also match the income definition underlying the selected yield.

Case 5 Capitalize compatible NOI

Question: Selected annual after-reserve NOI PHP 813,048 and a supplied compatible cap rate 8%. Calculate the stabilized benchmark.

Solution: 813,048 / 0.08 = PHP 10,163,100.

Reasoning: Use a decimal rate and the defined annual NOI. This benchmark is not automatically the value of the current contractual lease interest.

Case 6 Translate annual and monthly multipliers

Question: A compatible PHP 9m sale has annual gross income PHP 1.2m, or PHP 100,000 monthly. Derive both gross multipliers.

Solution: Annual multiplier 7.5; monthly multiplier 90.

Reasoning: The denominator period differs by twelve. Applying the monthly multiplier to annual income would overstate the indicated amount twelvefold.

Case 7 Detect the reserve mismatch

Question: The after-reserve rate is 8%. An analyst uses PHP 849,048 before-reserve income rather than PHP 813,048. Quantify the difference.

Solution: Mismatched amount PHP 10,613,100 versus selected PHP 10,163,100; difference PHP 450,000.

Reasoning: The PHP 36,000 numerator difference divided by 8% creates PHP 450,000. A different before-reserve convention needs a compatible rate, not a mixed calculation.

Case 8 Value the owner with reversion

Question: Mabini: PHP 900,000 net contract income at each year-end for 3 years. At expiry a level PHP 1.2m annual market net benefit begins in year 4 indefinitely. All rates 10%. Find owner value.

Solution: Contract PV about PHP 2,238,167; terminal value PHP 12m at end year 3; terminal PV about PHP 9,015,778; owner about PHP 11,253,944 using unrounded subtotals.

Reasoning: The owner receives both term rent and reversion. PHP 900,000/10% would incorrectly extend the below-market rent forever.

Case 9 Value a stipulated tenant advantage

Question: Mabini's transferable tenant benefit is PHP 300,000 yearly for 3 years, paid at year-end; 10% discount rate; no additional liabilities or transfer costs. Compute its PV.

Solution: 300,000 × 2.48685199 = about PHP 746,056.

Reasoning: The benefit ends after three years. The tenant does not receive the owner's terminal property value; transferability and obligations are explicitly stipulated.

Case 10 Normalize a rent-free term

Question: Face rent PHP 20,000/month, term 24 months, first 3 months free. Calculate total face receipts and undiscounted monthly average.

Solution: 21 paid months × 20,000 = PHP 420,000; 420,000/24 = PHP 17,500/month.

Reasoning: This is a simple average convention. Discounted effective rent requires the actual payment schedule and a suitable rate.

18 Income and lease worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Rent-roll scope

Rebuild Sampaguita annual market potential from 8 studios at PHP 7,500/month and 2 shops at PHP 18,000/month. Then calculate occupied contracts: 6 studios at PHP 7,000, shops PHP 16,500 and PHP 18,000. Explain the difference.

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2 Vacancy and credit conventions

Apply the combined 8% loss to rental potential PHP 1,152,000. Separately compute the overall percentage if 8% vacancy is followed by 2% credit loss on remaining rent. Explain why the latter is not 10%.

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3 Operating statement

Add PHP 36,000 net ancillary income to effective rental income. Deduct tax 72,000, insurance 24,000, utilities 36,000, maintenance 60,000, management 5% EGI and reserve 36,000. Show both before- and after-reserve NOI.

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4 Capitalization and sensitivity

Capitalize selected after-reserve NOI at 7.5%, 8% and 8.5%. Derive the rate of a separate compatible sale with annual NOI PHP 800,000 and price PHP 10m. Explain why supplied ratios do not establish actual market evidence.

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Rates and leased interests continued

5 Gross multipliers

Derive annual and monthly multipliers from PHP 9m price and PHP 1.2m annual gross income. Use annual multiplier 7.5 on compatible rental potential PHP 1,152,000. Explain why it cannot be applied unchanged to a different EGI convention.

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6 Expense normalization

A ledger expense total PHP 440,000 includes recurring operations 180,000, debt service 90,000, depreciation 50,000 and capital roof work 120,000. Reconcile recurring expenses. Explain how capital work remains relevant despite removing it from this operating schedule.

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7 Lease interest and reversion

For Mabini, value 3 year-end net contract payments of PHP 900,000 plus end-year-3 reversion based on PHP 1.2m level annual net benefit and 10%. Also value the 3-year PHP 300,000 tenant advantage at 10%. State the assumptions behind their sum.

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8 Incentives and timing audit

Calculate the undiscounted average of PHP 20,000/month over 24 months with 3 free months. Calculate annual rent in years 1–3 starting PHP 100,000 and escalating 5% at each anniversary. Explain which income period the Mabini reversion starts with.

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19 Review and examination checks

Model control	Examination check
Interest	Whose rights and cash flows?
Rent evidence	Contract market or collected?
Income period	Monthly or annual?
Loss allowance	Vacancy and credit counted once?
Ancillary income	Gross net and recoveries consistent?
Management	Which income denominator?
Reserve	Income and yield definitions match?
Debt service	Property income or equity cash flow?
Stabilization	Benchmark distinct from current lease?
Gross multiplier	Comparable gross definitions match?
Cap rate	Representative NOI and relevant rate?
Discount rate	Dated benefits and risk match?
Lease reversion	Income begins after explicit term?
Tenant advantage	Transferability and obligations?
Sensitivity	Scenario rather than probability?

Explain the income chain

Define the interest, verify rents and terms, normalize losses and expenses, identify the selected income convention, support the compatible conversion factor, preserve timing and explain material limitations. Keep stabilized and current contractual conditions visible.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. Which statement best distinguishes contract rent and market rent?

A. Market rent is the amount collected last month

B. They are always identical

C. Contract rent follows the actual agreement; market rent is estimated on specified market terms

D. Contract rent includes every tenant business receipt

2. Eight studios at supplied market rent PHP 7,500/month have annual rental potential of:

A. PHP 1,152,000

B. PHP 504,000

C. PHP 60,000

D. PHP 720,000

3. Six occupied studios at PHP 7,000/month plus occupied shops at PHP 16,500 and PHP 18,000/month schedule annual contract rent of:

A. PHP 1,152,000

B. PHP 918,000

C. PHP 1,095,840

D. PHP 504,000

4. Rental potential PHP 1,152,000 less one combined vacancy-and-credit allowance 8% gives effective rental income:

A. PHP 1,095,840

B. PHP 1,059,840

C. PHP 92,160

D. PHP 1,129,960

5. Eight percent vacancy followed by two percent credit loss on remaining rent gives an overall loss of:

A. 9.84%

B. 10%

C. 6%

D. 16%

6. Effective rent PHP 1,059,840 plus stipulated PHP 36,000 net ancillary income gives selected EGI:

A. PHP 1,095,840

B. PHP 1,152,000

C. PHP 1,023,840

D. PHP 1,188,000

7. Management is 5% of EGI PHP 1,095,840. Its annual amount is:

A. PHP 52,992

B. PHP 57,600

C. PHP 54,792

D. PHP 45,900

8. Sampaguita EGI PHP 1,095,840 less total defined after-reserve deductions PHP 282,792 gives NOI:

A. PHP 1,378,632

B. PHP 849,048

C. PHP 918,000

D. PHP 813,048

9. Which item is excluded from an unlevered property operating-income schedule in this lesson?

A. Mortgage principal and interest service

B. Ordinary property maintenance

C. Property insurance paid by owner

D. Owner-paid common utilities

10. Before-reserve NOI is PHP 849,048; after-reserve NOI is PHP 813,048. When using an after-reserve cap rate, the principal control is to:

A. Deduct accounting depreciation again

B. Always capitalize the larger income

C. Use the corresponding after-reserve numerator

D. Add tenant business goodwill

11. Selected annual NOI PHP 813,048 capitalized at 8% gives:

A. PHP 6,504.384

B. PHP 10,163,100

C. PHP 10,613,100

D. PHP 8,640,000

12. A compatible PHP 10m sale and annual NOI PHP 800,000 imply which capitalization ratio?

A. 8%

B. 12.5%

C. 0.8%

D. 80%

13. A PHP 9m price and PHP 1.2m annual gross income imply annual gross multiplier:

A. 13.3333

B. 90

C. 7.5

D. 0.08

14. Applying annual gross multiplier 7.5 to compatible annual rental potential PHP 1,152,000 gives:

A. PHP 8,218,800

B. PHP 8,640,000

C. PHP 10,163,100

D. PHP 153,600

15. Which best describes a discount rate in an explicit income model?

A. An operating expense percentage

B. Always identical to a gross-income multiplier

C. A monthly rent amount

D. A rate converting dated future cash flows to present values

16. Mabini receives PHP 900,000 net at each year-end for 3 years; the 10% annuity factor is 2.48685199. Contract-payment PV is approximately:

A. PHP 2,238,167

B. PHP 9,000,000

C. PHP 2,700,000

D. PHP 12,000,000

17. Mabini end-year-3 reversion is PHP 12m. At 10%, its present value is approximately:

A. PHP 10,909,091

B. PHP 12,000,000

C. PHP 9,015,778

D. PHP 2,238,167

18. A transferable tenant advantage PHP 300,000 at each year-end for 3 years has PV at 10% of approximately:

A. PHP 3,000,000

B. PHP 746,056

C. PHP 900,000

D. PHP 11,253,944

19. Monthly face rent PHP 20,000 over 24 months with first 3 free has undiscounted monthly average:

A. PHP 18,750

B. PHP 20,000

C. PHP 2,500

D. PHP 17,500

20. Holding positive NOI fixed, increasing a compatible cap rate from 8% to 8.5% does what to the direct-capitalization amount?

A. Converts it into gross potential income

B. Raises it

C. Leaves it unchanged

D. Lowers it

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	B
2	D	12	A
3	B	13	C
4	B	14	B
5	A	15	D
6	A	16	A
7	C	17	C
8	D	18	B
9	A	19	D
10	C	20	D

1. C An actual agreement and a market-rent estimate are different evidence and valuation concepts; comparable terms matter.

2. D 8×7,500×12=PHP 720,000. PHP 1,152,000 includes the separate retail potential.

3. B Studios PHP 504,000 plus shops PHP 414,000=PHP 918,000, before collections and concessions.

4. B Loss=1,152,000×8%=PHP 92,160; remaining PHP 1,059,840.

5. A Retained factor=0.92×0.98=0.9016; loss=9.84%. The second rate has a reduced base.

6. A 1,059,840+36,000=PHP 1,095,840. The ancillary figure already accounts for its own costs and losses.

7. C Apply the supplied EGI base: 1,095,840×5%=PHP 54,792.

8. D 1,095,840−282,792=PHP 813,048. The reserve convention is part of the definition.

9. A Debt service belongs to financing. Property and equity cash-flow models require different consistent treatment.

10. C Match the income definition to the selected rate; either reserve convention needs corresponding evidence.

Answer explanations continued

11. B 813,048/0.08=PHP 10,163,100. Division by the decimal rate is required.

12. A 800,000/10,000,000=0.08 or 8%, subject to verification and comparable definitions.

13. C 9m/1.2m=7.5. Ninety is the multiplier against PHP 100,000 monthly gross income.

14. B 1,152,000×7.5=PHP 8,640,000. The denominator scope must remain compatible.

15. D A discount rate addresses timing and relevant risk. A cap rate or gross multiplier uses a different conversion convention.

16. A 900,000×2.48685199≈PHP 2,238,167. This component does not yet include owner reversion.

17. C 12m/1.10 cubed≈PHP 9,015,778. Three-year discounting is required.

18. B 300,000×2.48685199≈PHP 746,056 under the supplied no-cost, no-extra-obligation assumptions.

19. D Twenty-one paid months produce PHP 420,000, spread over 24 gives PHP 17,500. Discounted equivalence is a different calculation.

20. D Value=NOI/rate. A larger positive denominator lowers the amount, holding the numerator fixed.

Worksheet model responses

Response 1

Studios 8×7,500×12=PHP 720,000; shops 2×18,000×12=PHP 432,000; potential PHP 1,152,000. Occupied studios 6×7,000×12=PHP 504,000; shops PHP 414,000; contract schedule PHP 918,000. The market benchmark is distinct from enforceable occupied lease receipts.

Response 2

Combined loss=PHP 92,160; effective rent=PHP 1,059,840. Separate sequential factors 0.92×0.98=0.9016 retained, or 9.84% loss. The credit percentage uses a reduced base. A common-original-base convention would be a different 10% model.

Response 3

EGI=PHP 1,095,840. Management PHP 54,792; ordinary expenses PHP 246,792; before-reserve NOI PHP 849,048. Including reserve gives expenses PHP 282,792 and selected NOI PHP 813,048. Preserve this convention when selecting a rate.

Response 4

At 7.5%: PHP 10,840,640. At 8%: PHP 10,163,100. At 8.5%: about PHP 9,565,271. Comparable ratio=800,000/10m=8%. These are supplied calculations; real evidence must establish interest, income definitions, date and comparability.

Response 5

Annual multiplier=9m/1.2m=7.5; monthly=9m/100,000=90. Compatible indication=1,152,000×7.5=PHP 8,640,000. An EGI including ancillary income and vacancy differs from rental potential; match definitions before applying a multiplier.

Response 6

440,000−90,000−50,000−120,000=PHP 180,000 recurring operations. Capital outlay requires consistent separate treatment, such as a dated DCF expenditure or supported provision. Removing it here does not eliminate its economic effect; avoid duplicating it with a reserve for the same event.

Response 7

Annuity factor 2.48685199; contract PV≈PHP 2,238,167. Terminal=1.2m/10%=PHP 12m at year 3, PV≈PHP 9,015,778. Unrounded owner total≈PHP 11,253,944; tenant≈PHP 746,056; combined≈PHP 12m. Equality uses identical rates, no growth, friction, default or extra obligations, transferable benefit and immediate market reversion.

Response 8

Receipts=21×20,000=PHP 420,000; average=PHP 17,500/month. Escalating annual rents are PHP 100,000, PHP 105,000 and PHP 110,250. Mabini terminal value at end year 3 represents income starting year 4, preventing duplication of year-3 contract rent.

22 Essential terms and formula review

Contract rent Payment defined by the actual agreement.

Market rent Estimated rent on stated comparable market terms.

Potential rental income Defined rent before specified loss deductions.

Effective gross income Selected receipts after relevant loss and ancillary treatment.

NOI Property operating income under a defined expense and reserve convention.

Stabilization Supported representative operation rather than an atypical year.

Gross multiplier Compatible price divided by defined gross income.

Cap rate Defined annual net income divided by corresponding value.

Discount rate Rate converting dated future benefits to present amounts.

Reversion Benefit retained after the explicit term or forecast.

Tenant advantage Favourable net lease benefit subject to its term and constraints.

Teaching relationship	Defined formula
Annual scheduled rent	Monthly rent × units × 12
Combined loss	Specified potential base × supplied loss rate
EGI	Effective rent + consistently treated ancillary income
Selected NOI	EGI − defined operating expenses and reserve
Direct capitalization	Compatible annual NOI / cap rate
Gross multiplier	Compatible price / specified gross income
Gross indication	Matching gross income × gross multiplier
Dated present value	CF at t / (1 + discount rate)^t
Term and reversion	PV of contract benefits + PV of reversion
Tenant benefit model	PV of transferable net advantages during term

Every formula needs consistent rights, income period, timing and definitions. The supplied rents and rates are educational assumptions; arithmetic does not establish their market support.

23 Sources and preparation status

Research reviewed on 12 October 2026. The narrative, Sampaguita rent roll, Mabini lease examples, cases and assessment items are original educational work. They are not actual or recalled PRC examination questions.

Use the operating statement to practise the distinction between potential and effective income, before- and after-reserve NOI, and gross versus net conversion tools. Use the lease example to trace contractual benefits, tenant constraints and owner reversion. Preserve unrounded calculations before presenting rounded results.

For actual assignments and clause-specific examination preparation, consult the applicable full Philippine valuation standards and official requirements. The international references below support the conceptual framework; the chapter is not a complete domestic clause audit or a statement of future examination rules.

1 IVSC income and leased-interest framework

IVSC-authored redline effective 31 January 2025, hosted by ICAEW. Selected current text was visually checked on printed page 48 (income approach) and pages 155, 158–159 (real-property income, hierarchy of interests and rent), distinguishing deleted wording.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 IVSC official standards architecture

Official page identifies IVS 103 approaches, IVS 104 inputs, IVS 105 models, IVS 106 documentation, and IVS 400 real property interests.

https://ivsc.org/standards/

REALEX

Lesson 27

Discounted Cash Flow and Development Property

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Develop a dated forecast from the defined property interest, phase expenditure and collections, and explain the residual under a stated return convention. Distinguish financial feasibility from a supported market-value opinion.

This lesson develops the original Dalisay mixed-use case: residential absorption, retail terminal value, construction phasing, a separate static residual with finance and profit, and price, cost, delay and rate sensitivities. It includes ten worked cases, a two-page worksheet and twenty original questions with explained answers.

All schemes, prices, costs, rates and collection assumptions are fictional teaching inputs. The calculations illustrate explicitly restricted models rather than actual investment advice, market values or assignment-specific standards compliance.

Your learning goals

- Define the interest condition and valuation date.
- Distinguish feasibility site capacity and market value.
- Reconcile product quantities and completed-value inputs.
- Translate absorption into dated cash collections.
- Phase remaining construction and other costs.
- Calculate a dated terminal with consistent next-period income.
- Discount positive and negative cash flows to one date.
- Separate land capacity NPV and IRR.
- Identify finance and developer-return conventions.
- Read profit-on-value and profit-on-cost denominators.
- Test price cost absorption terminal and rate sensitivity.
- Audit timing overlap sources and limitations.

Study plan: Allow five hours in two sessions. Read sections 1–8 for the dated model and sections 9–16 for residuals, return and sensitivity. Attempt the worked cases, worksheet and test before checking the responses.

1 Identify the valuation question before forecasting

A discounted cash flow model brings dated future benefits and obligations to a common valuation date. For development property, those cash flows may include construction, professional fees, sales collections, interim operations and a retained or sold asset at the forecast end. The model answers a defined question about an identified interest; it is not a substitute for establishing what can legally and economically be developed.

Separate three decisions. A feasibility study asks whether a proposal satisfies specified investment criteria. A residual exercise asks what amount remains for an identified development interest after the selected costs and return requirements. A market-value opinion asks what relevant participants would pay under the appropriate basis and supported assumptions. One spreadsheet can inform all three, but its output cannot be relabelled without examining its inputs and purpose.

The checked international framework describes discounting projected benefits and development residual analysis, with particular attention to input reliability, timing and sensitivity. [1] The original Dalisay case below supplies explicit financial assumptions. It makes no claim that the illustrative calculations alone comply with all IVS 410 or Philippine valuation requirements.

Lesson 26 introduced income definitions, leased interests and reversion. This lesson adds construction phasing, absorption, finance and return conventions. Preserve the same evidence discipline: identify sources, distinguish observed facts from forecasts and explain which assumptions materially influence the result.

2 Define development scope and the valuation date

Specify the site interest, existing condition, permissions, proposed use, specification, construction stage and the date being valued. A completed-property amount at a future date differs from the present amount of an unfinished interest. If a proposal is analyzed under an assumed permission or completion condition, describe that premise rather than presenting it as an observed fact.

Dalisay Commons is a fictional mixed-use proposal on a single site. It contains twenty residential units to be sold and two retail bays to operate briefly and then sell together as an investment interest. The analysis date is 30 September 2026, labelled time 0. The exercise assumes a permissible, supportable scheme and the defined site interest can be acquired without assembly complications.

All amounts are Philippine pesos. Years 1, 2 and 3 denote the ends of successive twelve-month forecast periods from time 0; year 4 supplies the next annual retail income for terminal valuation. This relative timetable avoids mixing calendar labels with discount periods. An actual model should use dates and the applicable day-count or period convention.

The base cash-flow model is nominal, before owner-specific income tax and unlevered: debt drawdowns, repayments and interest are excluded. Its supplied 12% project discount rate represents the selected return convention. Land acquisition is initially omitted because its affordable time-0 amount is the unknown. A separate immediate startup cost PHP 1 million is included; no land transfer cost is stipulated in this deliberately restricted exercise.

3 Construct quantities and completed-value inputs

Residential receipts are based on twenty units at PHP 2 million each, giving PHP 40 million total gross residential proceeds. Ten units are collected at the end of year 2 and ten at the end of year 3. The receipt schedule assumes complete settlement on those dates, rather than deposits on reservation or progressive instalments. The quantities reconcile to twenty units with none left unsold at the base terminal date.

The two retail bays remain one retained investment component until the end of year 3. Their net operating income is PHP 900,000 during year 3. Stabilized next-year NOI is supplied at PHP 1.2 million, with a compatible terminal capitalization rate of 8%. The end-year-3 gross investment amount is therefore PHP 15 million. These rents and yields are fictional, not evidence of current retail pricing.

Gross development value in the static illustration is PHP 55 million: residential capital proceeds PHP 40 million plus the retail capital amount PHP 15 million. The separate PHP 900,000 interim operating income is an additional receipt, not another capital asset. State whether a particular GDV convention includes any operating cash flow before comparing profit ratios.

Original product / receipt	Supplied basis	PHP million
Residential capital proceeds	20 units × PHP 2m	40.0
Retail gross terminal	Year-4 NOI 1.2m / 8%	15.0
Defined GDV	Capital amounts only	55.0
Interim retail operation	Year-3 net income	0.9
Total gross benefits	GDV plus interim NOI	55.9

Avoid counting both individual retail-bay sales and the capitalized value of those same bays. Similarly, a terminal property amount already representing land and building is not followed by another full site addition. Every unit or retained interest should have one disposal or continuation path in the model.

4 Translate absorption into collections

Absorption concerns how the market takes up the product over time. A reservation, executed contract, handover and cash collection can occur on different dates. A valuation forecast needs the relevant cash schedule, including deposits, balance payments, cancellations, incentives and credit risk. Do not convert a marketing target directly into certain cash without stating the assumption.

In Dalisay, the supplied collection convention is intentionally simple: ten residential settlements of PHP 2 million at year 2, then ten at year 3. Each period therefore collects PHP 20 million gross. Residential selling costs are 4% of receipts in the same period, or PHP 800,000 each year. Net residential proceeds are PHP 19.2 million per collection period before development costs.

An annual table can conceal significant timing differences. A receipt collected early in a year is worth more at time 0 than one collected at its end under a positive discount rate. The base case uses year-end timing throughout. A midyear or exact-date variant requires revised periods, not merely moving labels on the existing table.

Check units sold, cash collected and inventory separately. If only eighteen units have settled by year 3, the two remaining units require a supported later receipt or a properly valued remaining-inventory amount. Do not delete their future costs while keeping their full sale value in the same year. Absorption also affects finance, holding costs and risk exposure.

5 Phase construction and other development costs

The base physical cost schedule supplies construction PHP 12 million at year 1 and PHP 10 million at year 2, total PHP 22 million. Professional and other development fees are PHP 1 million in each of those years, total

PHP 2 million. A separate contingency is PHP 1 million in each year, total PHP 2 million. These entries are defined to exclude one another.

Year-1 expenditure is therefore PHP 14 million, and year-2 expenditure PHP 12 million. Year 3 carries a separate administrative and completion closeout cost PHP 1 million. The immediate startup cost PHP 1 million belongs at time 0. Total startup, construction, fees, contingency and closeout cost is PHP 28 million before selling costs, finance, land or a separate static profit allowance.

Inspect the cost basis rather than relying only on totals. Establish whether construction quotations include preliminaries, contractor margin, fit-out, external works, taxes or design. A nominal forecast should reflect the selected future price assumptions. A contingency is a defined allowance for identified uncertainty, not a licence to add several overlapping risk percentages.

Only costs remaining from the valuation date belong in a forward development forecast. Historical expenditure can help explain the existing asset and cost evidence, but already-paid expenditure is not automatically paid a second time by the purchaser. Obligations attached to the interest and outstanding liabilities still require separate investigation and consistent treatment.

6 Calculate terminal value at the correct date

A terminal amount represents the remaining benefit after the explicit forecast period. Dalisay's gross retail value at the end of year 3 is next-year NOI PHP 1.2 million divided by 8%, or PHP 15 million. The next-year numerator begins in year 4. Year-3 NOI PHP 900,000 is counted separately as the actual forecast-period operating cash flow.

The exercise sells the retail investment interest at the year-3 end. Selling costs are 2% of the gross PHP 15 million, or PHP 300,000. Net terminal receipt is PHP 14.7 million. Because those costs are already deducted from the terminal receipt, do not subtract the same PHP 300,000 again as a separate cash-flow expense.

If the terminal capitalization rate rises to 9%, the same PHP 1.2 million numerator gives gross PHP 13,333,333.33 and net PHP 13,066,666.67 after 2% selling costs. A lower terminal value then changes the present residual. The terminal cap rate and project discount rate serve different purposes and must not be swapped merely because both are percentages.

A retained asset need not be sold to contribute a terminal amount, but the model must describe the continuation or exit premise. Consider future capital requirements, vacancies, leasing costs and market conditions where relevant. An unsupported terminal figure can dominate the calculation while appearing as only one line of the spreadsheet.

7 Assemble the original dated project cash flow

At time 0 the Dalisay pre-land cash flow is negative PHP 1 million startup. Year 1 is negative PHP 14 million. Year 2 combines residential receipt PHP 20 million, development expenditure PHP 12 million and selling expense PHP 800,000, giving positive PHP 7.2 million. Signs identify payments versus receipts; a cost shown as positive and later added produces a substantive error.

Year 3 combines residential proceeds PHP 20 million, retail operating NOI PHP 900,000 and net retail terminal receipt PHP 14.7 million. It deducts completion closeout PHP 1 million and residential selling costs PHP 800,000. The resulting net cash flow is positive PHP 33.8 million. Gross year-3 benefits and separate deductions should remain visible beside that subtotal.

Cash flow: PHP million	Time 0	Year 1	Year 2	Year 3
Startup	−1	0	0	0
Construction	0	−12	−10	0
Fees	0	−1	−1	0
Separate contingency	0	−1	−1	0
Residential settlements	0	0	20	20
Residential selling	0	0	−0.8	−0.8
Retail operating NOI	0	0	0	0.9
Net retail exit	0	0	0	14.7
Completion closeout	0	0	0	−1
Net before land	−1	−14	7.2	33.8

Defined scope: unlevered before-tax nominal forecast; all year 1–3 cash is at period end. Net retail exit already deducts its 2% disposal expense. Land is initially omitted as the unknown time-0 acquisition amount.

Undiscounted pre-land cash flows sum to PHP 26 million: −1 −14 +7.2 +33.8, in millions. This is not the time-0 discounted site capacity. It does not include a separately stipulated static finance or profit deduction, because this is the selected unlevered discount-rate model. Explain the return convention before interpreting its residual.

Use a reconciliation across both rows and columns. Residential gross receipts sum PHP 40 million; construction PHP 22 million; fees PHP 2 million; contingency PHP 2 million; residential selling PHP 1.6 million; and net retail terminal PHP 14.7 million. The base residential inventory closes at zero. These checks can identify missing phases and duplicated terminal receipts before discounting begins.

8 Discount each cash flow to time 0

Under the stated year-end model, present value at time 0 equals each period's cash flow divided by (1 + the supplied rate) raised to its period number. Time-0 cash is not discounted. Negative payments also receive discounting when they occur later; converting receipts only and subtracting all future costs without timing is an inconsistent model.

At 12%, Dalisay time-0 startup PV is −PHP 1 million. Year-1 PV is −14 million / 1.12 = −PHP 12.5 million. Year-2 PV is 7.2 million / 1.12 squared = approximately PHP 5,739,795.92. Year-3 PV is 33.8 million / 1.12 cubed = approximately PHP 24,058,172.38.

Adding unrounded present values gives PHP 16,297,968.29. Under the supplied model this is the pre-land time-0 capacity available for the site acquisition. If an immediate land payment equal to that amount is inserted at time 0, project NPV becomes zero at the selected 12% rate. This mathematical capacity is not established market value without participant evidence and an appropriate valuation basis.

Period	Net PHP million	12% present value PHP
Time 0	−1.0	−1,000,000.00
Year 1	−14.0	−12,500,000.00
Year 2	+7.2	+5,739,795.92
Year 3	+33.8	+24,058,172.38
Pre-land capacity	Unrounded sum	16,297,968.29

A spreadsheet NPV function commonly treats the first listed periodic amount as occurring one period later. Keep time-0 cash outside that periodic sum when using such a convention. An exact-date function instead needs actual dates and its supported rate convention. Independently check one or two terms so that a function name does not conceal a one-period shift.

9 Distinguish land capacity, NPV and IRR

A residual land capacity is an unknown acquisition amount derived under defined assumptions. NPV assesses a schedule after a specified acquisition payment is included. IRR is a rate at which that specified cash-flow schedule has zero NPV. The three quantities answer different questions and have different units: money, money and a rate.

If Dalisay's time-0 land price is PHP 14 million, the first net cash flow becomes negative PHP 15 million including startup. At the supplied 12% project rate, NPV is PHP 2,297,968.29: pre-land capacity PHP 16,297,968.29 less the PHP 14 million payment. Its positive sign supports feasibility against that particular return criterion under the supplied forecast.

The same conventional schedule, −15 million, −14 million, +7.2 million and +33.8 million, has an annual IRR of approximately 15.8836%. This is a calculated project return, not a market capitalization rate or an independently selected valuation discount rate. If price, timing or costs change, the resulting IRR changes too.

Unusual sign patterns can create multiple or absent IRRs. A high IRR can also belong to a smaller project with a lower monetary NPV. Use the chosen investment criteria and compare compatible scales and dates. Do not infer market value solely from the fact that an investor's preferred return is achieved.

10 Make finance and required return explicit

Finance costs depend on funding timing, amounts, fees, drawdowns, repayments and rates. Borrowing cost is not automatically the project discount rate. An equity cash-flow model includes the relevant debt movements and uses an appropriate equity return; an unlevered model excludes those financing movements and uses a compatible project return. Mixing the two can count a funding effect twice.

The static exercise in section 11 explicitly includes a separately supplied finance allowance PHP 2 million. It is defined as non-land development finance through construction and disposal under that simplified convention. The base dated DCF instead uses unlevered cash flows and a supplied project return rate. These are different financial demonstrations, not two equally verified market valuations or a claim that finance considerations can be ignored in an actual development valuation.

Required development reward may be expressed as a money allowance, percentage or rate of return. Establish whether it is already represented by the selected risk-and-return model before adding another

deduction. A contingency, conservative forecast, explicit developer-profit allowance and discount-rate premium need distinct purposes if combined. [1]

An actual workfile should identify how financing, participant return and remaining risks are treated, including capital committed before completion. The applicable development standards and assignment basis require full consideration. This lesson's restricted models help reveal calculation mechanics; they do not prescribe a universal financing structure or a compliant valuation recipe.

11 Calculate an explicit static residual with finance and profit

The separate static Dalisay illustration groups nominal amounts without period discounting. Gross residential proceeds PHP 40 million plus gross retail capital value PHP 15 million form GDV PHP 55 million. Interim retail NOI PHP 900,000 is an additional receipt, so total stipulated benefits are PHP 55.9 million. Keep that distinction visible when applying the profit base.

The illustration subtracts non-land startup and development costs PHP 28 million; residential selling PHP 1.6 million; retail exit selling PHP 300,000; and separately stipulated finance PHP 2 million. Required profit is supplied at 20% of GDV PHP 55 million, or PHP 11 million. It is expressly not 20% of PHP 55.9 million including the interim NOI.

The arithmetic residual is therefore 55.9 −28 −1.6 −0.3 −2 −11 = PHP 13 million. This is an undiscounted static residual under the stipulated allowances. It does not equal the dated DCF capacity PHP 16,297,968.29 because timing and return conventions differ. Do not average those amounts as though the discrepancy were merely rounding.

Separate static grouping	PHP million
GDV plus interim NOI	55.9
Startup and development costs	−28.0
Residential and retail selling	−1.9
Supplied non-land finance	−2.0
Profit: 20% of GDV 55m	−11.0
Undiscounted static residual	13.0

A static model is useful for understanding a profit deduction and cost inclusions, but it suppresses the sequence of expenditure and receipts. To use a development residual in an actual present-value opinion, examine dated cash flows, remaining risks, relevant participant inputs and the full applicable requirements. The arithmetic PHP 13 million alone is not a current market-value conclusion.

12 Read profit bases and land-dependent charges

Twenty percent profit on value differs from twenty percent return on cost. In an independent simple example, completed proceeds are PHP 50 million and all non-land costs PHP 30 million. At 20% of completed value, required profit is PHP 10 million and land residual PHP 10 million. The denominator is the specified completed value.

If profit instead equals 20% of total cost including the land payment L, the equation is 50 = (30 + L) × 1.20, in millions. L = 50 / 1.20 −30 = approximately PHP 11.666667 million. Using 20% of only the non-land cost would produce a different PHP 14 million residual and would violate the stated total-cost convention.

A percentage of the unknown land payment makes the residual circular unless solved. Suppose the static Dalisay model additionally stipulates land-related finance equal to 10% of L, distinct from the PHP 2 million non-land finance allowance. Then L = 13 million −0.10L. Solving 1.10L =13 million gives approximately PHP 11,818,181.82.

This additional example is an algebra exercise, not a legal tax or lending formula. Real land-related acquisition charges, finance and holding costs need supported timing and bases. A spreadsheet plug that omits them or applies them to the wrong amount can overstate capacity while still producing a cleanly balanced total.

13 Test selling-price and cost sensitivity

Sensitivity changes a selected assumption while holding stated others fixed. It identifies exposure; it does not establish the probability of a scenario or the likelihood that adverse variables move independently. Development residuals can move proportionately more than gross prices because many costs remain committed while receipts change.

For Dalisay, a 10% reduction in residential prices lowers each PHP 20 million receipt to PHP 18 million. The 4% residential selling expense also falls from PHP 800,000 to PHP 720,000 each period. Each net residential receipt therefore drops PHP 1.92 million, rather than PHP 2 million. At 12%, discounted pre-land capacity becomes approximately PHP 13,400,737.97.

A separate 10% increase in construction costs affects PHP 12 million at year 1 and PHP 10 million at year 2. Extra outlays are PHP 1.2 million and PHP 1 million, with other fees and contingencies held unchanged solely for this diagnostic. Their combined time-0 effect is approximately PHP 1,868,622.45; remaining capacity is PHP 14,429,345.85.

At the base 12% discount rate, raising the retail terminal cap rate from 8% to 9% lowers net terminal proceeds to PHP 13,066,666.67. The resulting pre-land capacity is approximately PHP 15,135,393.89. This changes the exit valuation input; it does not change the discount rate used for the explicit cash-flow forecast.

One-factor diagnostic	12% capacity PHP
Base dated forecast	16,297,968.29
Residential prices −10%	13,400,737.97
Construction +10% only	14,429,345.85
Terminal cap rate 9%	15,135,393.89

14 Examine absorption delay and discount-rate changes

A slower sales or letting schedule can affect receipts, holding costs, finance and the time before stabilization. Moving revenues alone is a diagnostic rather than a complete revised forecast. Explain the costs held fixed and those moved. Otherwise the analyst can silently create a favourable delay scenario that ignores ongoing exposure.

The Dalisay delay diagnostic leaves startup and construction-period costs at their original dates. It shifts residential collections and associated selling costs one year later, and shifts retail operation, retail exit and

completion closeout from year 3 to year 4. No additional carrying, finance or price changes are included in this deliberately limited scenario.

The resulting pre-land cash flows in millions are time 0 −1; year 1 −14; year 2 −12; year 3 +19.2; and year 4 +33.8. At 12%, capacity is approximately PHP 12,080,365.28, a reduction of PHP 4,217,603.02 from the base. A full revised forecast could differ materially once delay-related obligations and market changes are modeled.

Separately, with the original cash flows unchanged, a 10% discount rate gives capacity PHP 17,617,580.77, while 14% gives PHP 15,073,501.70. For this particular schedule the increase lowers capacity. Do not generalize monotonic behaviour to every possible cash-flow pattern without checking it, because delayed costs are also discounted.

15 Separate feasibility from a supported value opinion

Positive NPV at an investor's chosen rate can support a particular investment decision. It does not show that the same inputs represent typical market participants or that the proposed use is the market-supported optimum. Owner-specific cost advantages, financing, tax positions or preferences can produce an investment amount different from market value.

Dalisay's base capacity is about PHP 16.30 million under its supplied financial model. The PHP 14 million land-price scenario has positive NPV about PHP 2.30 million. Under the residential price reduction, capacity falls to about PHP 13.40 million and NPV at the same PHP 14 million acquisition price becomes negative about PHP 599,262.03. The same proposal can cross the feasibility threshold with a stated input change.

Compare the residual with supported land and development-interest transactions where available. Investigate permissions, site constraints, design suitability, market demand, absorption, construction support and remaining risks. A large gap from comparable evidence may expose optimistic completed value, omitted costs or an inappropriate return convention. It is a reason to investigate, not a licence to replace evidence with the spreadsheet answer.

A negative residual does not establish that land has negative market value. It may show that the particular scheme or input set cannot support a positive acquisition payment under the chosen criterion. Alternative uses, stages or strategies require their own evidence. State the result's scope and preserve uncertainty without false precision.

16 Audit the forecast and communicate the limitations

A reproducible development model has an input register, source dates, quantity schedule, permissions and condition premise, timing convention, cost inclusions, absorption and collection schedule, return treatment, terminal basis and sensitivity record. Every material line should be traceable. Separate original evidence from model assumptions and revised scenarios.

Check four reconciliations: physical quantities to product inventory; gross receipts to settlements and unsold interests; cost components to expenditure phases; and periodic net cash flow to present-value subtotals. Test signs and one-period shifts. Confirm that year-3 operating income is outside the terminal value beginning with year-4 income and that exit costs are deducted once.

The international architecture identifies development property alongside the general standards on approaches, inputs, models and reporting. [2] Selected source concepts support the teaching framework, but full IVS 410 and applicable Philippine requirements must be reviewed before any assignment-specific compliance claim. No such claim is made for these hypothetical exercises.

Lesson 28 addresses approach selection, reconciliation and uncertainty. Carry forward the habit of explaining evidence quality before combining indications. A detailed DCF earns confidence through supported assumptions and a transparent argument, rather than the number of columns or decimal places in its output.

17 Ten worked DCF and development cases

Attempt each question before reading the solution. Timing, cost inclusions and return assumptions are stipulated where stated. Preserve each unit, cash-flow base and model convention.

Case 1 Build residential collections

Question: Twenty Dalisay units sell for PHP 2m each. Ten settle at year 2 and ten at year 3. Selling costs are 4% of receipts. Calculate gross total and net receipts by period.

Solution: Gross total PHP 40m. Each settlement year receives PHP 20m less PHP 0.8m selling cost, giving PHP 19.2m before development costs.

Reasoning: Absorption and settlement timing are explicitly supplied. A reservation date would not automatically be the cash collection date.

Case 2 Calculate retail terminal value

Question: At end year 3, next-year retail NOI is PHP 1.2m; terminal cap rate 8%; exit cost 2% of gross value. Calculate gross and net terminal amounts.

Solution: Gross PHP 15m; exit cost PHP 300,000; net PHP 14.7m.

Reasoning: The numerator starts in year 4. Year-3 operating NOI is separate, and the exit cost is deducted once.

Case 3 Assemble year-2 cash

Question: Year-2 residential receipts PHP 20m; construction 10m; fees 1m; contingency 1m; selling 0.8m. Find net project cash flow.

Solution: 20−10−1−1−0.8=positive PHP 7.2m.

Reasoning: Positive receipts and negative expenditure reconcile to the period subtotal. The model excludes debt movements under its unlevered convention.

Case 4 Assemble year-3 cash

Question: Year-3 residential receipts PHP 20m; retail operating NOI 0.9m; net retail terminal 14.7m; closeout 1m; residential selling 0.8m. Find net.

Solution: 20+0.9+14.7−1−0.8=positive PHP 33.8m.

Reasoning: Net terminal already deducts retail exit selling. Subtracting another PHP 0.3m would repeat that charge.

Case 5 Discount the pre-land schedule

Question: At 12%, discount time-0 startup −1m, year 1 −14m, year 2 +7.2m and year 3 +33.8m. Calculate time-0 capacity.

Solution: PVs in PHP: −1,000,000; −12,500,000; +5,739,795.92; +24,058,172.38. Unrounded sum PHP 16,297,968.29.

Reasoning: Time-0 startup is undiscounted. Future receipts and costs are discounted to the same date. The result is model capacity, not established market value.

Case 6 Insert the land price

Question: The same pre-land capacity is PHP 16,297,968.29. Land costs PHP 14m immediately. Find NPV and interpret under the supplied 12% criterion.

Solution: NPV PHP 2,297,968.29; time-0 total outflow becomes PHP 15m including startup.

Reasoning: Positive NPV supports the stated financial criterion under the forecast. It does not itself verify participant assumptions or market value.

Case 7 Calculate a static residual

Question: Benefits: GDV PHP 55m plus interim NOI 0.9m. Non-land development/startup costs 28m; residential selling 1.6m; retail selling 0.3m; finance 2m; profit 20% of GDV. Find residual.

Solution: Profit PHP 11m. Static arithmetic residual 55.9−28−1.6−0.3−2−11=PHP 13m.

Reasoning: The profit base excludes interim NOI. This undiscounted grouping is a separate convention and cannot be treated as the same dated DCF answer.

Case 8 Read profit on total cost

Question: Independent example: completed proceeds PHP 50m, non-land costs PHP 30m and profit 20% of total cost including land L. Solve L.

Solution: 50=(30+L)×1.20; L=50/1.20−30≈PHP 11.666667m.

Reasoning: The land amount is inside the profit denominator. Deducting 20% of non-land costs only would not match the stated convention.

Case 9 Model construction sensitivity

Question: Dalisay construction increases 10%: extra PHP 1.2m at year 1 and PHP 1m at year 2. Other inputs fixed; 12% rate. Calculate capacity reduction and new amount.

Solution: PV extra cost PHP 1,868,622.45. Capacity PHP 14,429,345.85 using unrounded amounts.

Reasoning: Only the specified construction rows change. A full scenario may require linked fee, contingency or delay changes.

Case 10 Solve a land-dependent charge

Question: Static capacity before an additional land finance charge is PHP 13m. That additional charge is 10% of land payment L and excludes existing allowances. Solve.

Solution: L=13m−0.10L; L=13m/1.10≈PHP 11,818,181.82.

Reasoning: The unknown appears on both sides. The stated charge is algebraic and does not prescribe an actual lending or tax rate.

18 DCF and development worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Scope and timing

Define Dalisay time 0, year-end timing and the difference between site capacity and market value. Explain why a future completed value cannot be reported directly as the present unfinished-property amount.

_____

_____

_____

2 GDV and exit

Compute residential gross proceeds from 20 units at PHP 2m. Compute retail gross terminal using year-4 NOI 1.2m and 8% cap rate, then deduct 2% exit cost. Identify where year-3 retail NOI 0.9m belongs.

_____

_____

_____

3 Original cash-flow schedule

Build time 0 −1m; year 1 construction 12m, fees 1m, contingency 1m; year 2 receipts 20m, construction 10m, fees 1m, contingency 1m and selling 4%; year 3 residential 20m, retail NOI 0.9m, net terminal 14.7m, closeout 1m and residential selling 4%.

_____

_____

_____

4 Discount and acquisition

At 12%, discount each net cash flow to time 0. Find pre-land capacity and NPV with PHP 14m immediate land acquisition. Explain where time-0 startup appears relative to a periodic NPV function.

_____

_____

_____

Residual and sensitivity worksheet continued

5 Finance and static profit

Compute static residual from benefits 55.9m; non-land startup/development costs 28m; selling 1.9m; finance 2m; profit 20% of GDV 55m. Explain why this differs from the unlevered dated DCF.

_____

_____

_____

6 Profit denominator

For completed proceeds 50m and non-land costs 30m, compare land residual with profit 20% of value versus 20% of total cost including land. Separately solve L=13m−0.10L.

_____

_____

_____

7 Price and terminal sensitivity

Reduce each 20m residential receipt by 10%, keeping selling cost at 4% and other inputs fixed. Compute each net receipt reduction and new 12% capacity. Separately raise terminal cap rate to 9% and compute gross, net terminal and revised capacity.

_____

_____

_____

8 Delay and value interpretation

Discount the limited delay schedule −1m, −14m, −12m, +19.2m, +33.8m at times 0–4 and 12%. Explain omitted carrying effects and why a negative scheme residual does not establish negative land market value.

_____

_____

_____

19 Review and examination checks

Model control	Examination check
Valuation date	Where is time 0?
Condition	Existing or assumed completed?
Inventory	Units and disposal paths reconcile?
Absorption	Reservation or cash settlement?
GDV	Capital value and interim income distinct?
Costs	Remaining dated obligations counted once?
Selling	Gross or already-net exit?
Terminal	Next-period income and correct date?
Discounting	Receipts and payments use consistent periods?
NPV function	Time-0 cash kept in correct place?
Return	Project or equity convention?
Profit	Value cost or unknown-land denominator?
Sensitivity	Linked costs change where stated?
Feasibility	Chosen criterion versus market evidence?
Compliance	Full applicable review before claims?

Explain the development chain

Define the interest and condition, support the scheme and completed benefits, phase cash collections and costs, describe financing and return treatment, discount to the valuation date and investigate sensitivity. State whether the result is a financial capacity, feasibility indicator or supported value opinion.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. Which description best fits a development DCF?

A. A method guaranteeing market value whenever NPV is positive

B. Only gross completed value divided by site area

C. Historical costs summed without dates

D. Dated receipts and payments converted to a common valuation date

2. A PHP 1m startup payment occurs at time 0. In a year-end DCF its present-value treatment is:

A. Include PHP 1m without period discounting

B. Divide it by 1.12 as year 1

C. Delete it because it is not construction

D. Add it as a receipt

3. Twenty units at PHP 2m each produce total gross residential proceeds of:

A. PHP 20m

B. PHP 40m

C. PHP 55m

D. PHP 38.4m

4. Ten units settle for PHP 2m each and selling expense is 4% of their receipts. Net proceeds before development costs are:

A. PHP 0.8m

B. PHP 20m

C. PHP 19.2m

D. PHP 18m

5. End-year-3 retail terminal value uses year-4 NOI PHP 1.2m and a compatible 8% cap rate. Gross terminal is:

A. PHP 14.7m

B. PHP 11.25m

C. PHP 15m

D. PHP 10m

6. Gross retail terminal PHP 15m less 2% exit selling expense gives net terminal:

A. PHP 15.3m

B. PHP 14.7m

C. PHP 0.3m

D. PHP 12m

7. The principal timing control for Dalisay retail NOI and reversion is to:

A. Count year-3 NOI separately and start terminal income with year 4

B. Use year-3 NOI twice

C. Give the terminal value no valuation date

D. Omit all operating NOI whenever a terminal exists

8. Year 2 collects PHP 20m and pays construction 10m, fees 1m, contingency 1m and selling 0.8m. Net cash is:

A. Positive PHP 19.2m

B. Negative PHP 12m

C. Positive PHP 7.2m

D. Positive PHP 8m

9. Year 3 receives residential 20m, retail NOI 0.9m and net terminal 14.7m, then pays closeout 1m and residential selling 0.8m. Net is:

A. PHP 34.1m

B. PHP 33.8m

C. PHP 35.6m

D. PHP 32.9m

10. At 12%, the PV of a negative PHP 14m year-1 payment is:

A. Negative PHP 15.68m

B. Negative PHP 12.5m

C. Positive PHP 12.5m

D. Negative PHP 14m

11. At 12%, positive PHP 7.2m received at year 2 has PV approximately:

A. PHP 9,031,680

B. PHP 6,428,571

C. PHP 7,200,000

D. PHP 5,739,796

12. Dalisay pre-land time-0 capacity is PHP 16,297,968.29. An immediate PHP 14m land payment gives NPV:

A. PHP 2,297,968.29

B. PHP 16,297,968.29

C. PHP 30,297,968.29

D. Negative PHP 14m

13. What does positive NPV at an investor-selected return establish by itself?

A. The proposed use is legally permissible

B. The property is automatically worth the completed GDV today

C. All assumptions are market verified

D. The supplied schedule exceeds that specified financial criterion

14. Static profit is 20% of GDV PHP 55m, excluding interim NOI. Required profit is:

A. PHP 5.6m

B. PHP 11.18m

C. PHP 11m

D. PHP 2m

15. Static benefits 55.9m less development 28m, selling 1.9m, finance 2m and profit 11m leave:

A. PHP 13m

B. PHP 16.297968m

C. PHP 26m

D. PHP 15m

16. Completed proceeds PHP 50m; non-land costs PHP 30m; profit 20% of total cost including land L. Correct L is approximately:

A. PHP 20m

B. PHP 10m

C. PHP 14m

D. PHP 11.666667m

17. If L=PHP 13m minus a separate land charge of 10% of L, solve L:

A. PHP 11,818,181.82

B. PHP 11,700,000

C. PHP 13,000,000

D. PHP 14,300,000

18. Residential gross receipt drops from PHP 20m to PHP 18m while selling remains 4% of receipts. Net receipt reduction is:

A. PHP 2.08m

B. PHP 2m

C. PHP 0.08m

D. PHP 1.92m

19. A delay scenario moves receipts but adds no extra carrying or finance costs. It is best described as:

A. Proof that holding costs are zero

B. A fully verified revised valuation by definition

C. A limited timing diagnostic requiring further linked-cost review

D. A probability estimate of delay

20. A negative residual for one development proposal most directly indicates:

A. Land must have negative market value for every use

B. The supplied scheme cannot support a positive acquisition payment under that criterion

C. All alternatives are infeasible

D. Construction costs should be deleted

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	D	11	D
2	A	12	A
3	B	13	D
4	C	14	C
5	C	15	A
6	B	16	D
7	A	17	A
8	C	18	D
9	B	19	C
10	B	20	B

1. D A DCF brings the selected future cash flows to the defined valuation date; support and interest scope remain necessary.

2. A Immediate cash occurs at the valuation date. Preserve the negative payment sign and do not shift it one period.

3. B 20×2m=PHP 40m. PHP 38.4m would be net of the separately stipulated 4% residential selling expense.

4. C Gross PHP 20m less 4%, PHP 0.8m, leaves PHP 19.2m.

5. C 1.2m/0.08=PHP 15m. The PHP 14.7m figure is net after the stated exit charge.

6. B Exit charge=PHP 0.3m; remaining PHP 14.7m. Deduct that charge only once.

7. A The explicit period and post-forecast benefit must not overlap; terminal is located at the year-3 end.

8. C 20−10−1−1−0.8=+PHP 7.2m.

9. B 20+0.9+14.7−1−0.8=PHP 33.8m. Retail exit cost is already inside net terminal.

10. B −14m/1.12=−PHP 12.5m. Future cost and sign are both preserved.

Answer explanations continued

11. D 7.2m/1.12 squared≈PHP 5,739,796. The second-year exponent matters.
12. A Capacity less the immediate land payment gives NPV under the same assumptions and rate.
13. D Feasibility against a chosen criterion differs from a supported market-value opinion and legal-use verification.
14. C 0.20×55m=PHP 11m. Adding interim NOI to that denominator would change the stated convention.
15. A 55.9−28−1.9−2−11=PHP 13m under the separate undiscounted illustration.
16. D 50=(30+L)×1.20; L=50/1.20−30. Land is included in the profit base.
17. A 1.10L=13m, so L=13m/1.10. A percentage of the unknown requires an equation.
18. D Original net=19.2m; reduced net=17.28m; difference PHP 1.92m because selling expense also decreases.
19. C The scenario isolates specified effects. Actual delay may change finance, carrying obligations and pricing.
20. B The conclusion concerns the model and scheme; alternative uses and land value require separate evidence.

Worksheet model responses

Response 1

Time 0 is 30 September 2026. Each forecast year ends twelve months after the preceding period. Site capacity is an unknown payment consistent with supplied forecast and return assumptions; market value needs the appropriate basis and participant evidence. Future completed benefits require remaining costs, risks and timing treatment.

Response 2

Residential PHP 40m. Retail gross terminal=1.2m/0.08=PHP 15m; exit=PHP 0.3m; net=PHP 14.7m. GDV is PHP 55m under the stated capital-value convention. Year-3 PHP 0.9m NOI is a separate forecast receipt; terminal begins with year-4 NOI.

Response 3

Net cash flows in millions: t0 −1; year 1 −14; year 2 20−10−1−1−0.8=+7.2; year 3 20+0.9+14.7−1−0.8=+33.8. Undiscounted pre-land sum PHP 26m. Quantities close at 20 residential settlements and one retail investment exit.

Response 4

PVs PHP −1m, −12.5m, +5.73979592m, +24.05817238m; unrounded capacity PHP 16.29796829m. Less PHP 14m acquisition gives NPV PHP 2.29796829m. A periodic NPV convention treating its first input as year 1 needs time-0 startup and land outside that sum.

Response 5

Profit=55m×20%=PHP 11m. Static residual=55.9−28−1.9−2−11=PHP 13m. The static illustration explicitly includes finance and profit without dated discounting; the DCF uses unlevered flows and a return-rate convention. They are not identical or independently verified market opinions.

Response 6

On value: profit PHP 10m; residual PHP 10m. On total cost: L=50/1.2−30≈PHP 11.666667m. Additional charge exercise: L=13/1.1≈PHP 11.818182m. Preserve each specified denominator; these are separate models.

Response 7

Reduced residential gross is PHP 18m per period; selling PHP 0.72m; net PHP 17.28m, down PHP 1.92m each. Capacity≈PHP 13.40073797m. At 9% terminal cap: gross PHP 13.33333333m; net PHP 13.06666667m; revised capacity≈PHP 15.13539389m.

Response 8

Limited delay capacity≈PHP 12.08036528m, down PHP 4.21760302m from base. It holds construction dates fixed, shifts commercialization and closeout and adds no extra carrying or finance costs. A full forecast must examine those effects. A negative residual concerns the supplied scheme and criterion; alternative-use land value needs evidence.

22 Essential terms and formula review

DCF Present-value analysis of dated future cash flows.

Time 0 Defined valuation or investment analysis date.

Absorption Market take-up schedule, distinct from cash collection timing.

GDV Defined gross completed-development capital value.

Terminal value Remaining benefit at the explicit forecast end.

Residual capacity Amount left for a defined interest under stated costs and return.

NPV Present-value net balance after specified investment payments.

IRR Rate making the specified cash-flow NPV zero, where defined.

Unlevered flow Project cash flow before debt movements and financing charges.

Profit base Specified denominator for a monetary return allowance.

Sensitivity Change in result under explicitly altered inputs.

Teaching relationship	Defined formula
Year-end present value	CF at t / (1 + discount rate)^t
Pre-land capacity	Sum of dated pre-land present values
Acquisition NPV	Pre-land capacity − immediate land payment
Terminal at year n	Next-year compatible NOI / terminal cap rate
Net exit	Gross terminal × (1 − supplied exit-cost rate)
Static residual	Stated gross benefits − costs − finance − profit
Profit on GDV	Specified GDV × supplied margin
Profit on total cost	Proceeds = (non-land costs + land) × (1 + markup)
Unknown land charge	L = pre-charge residual − rate × L
One-factor diagnostic	Revise specified rows and recompute PV

Every formula requires consistent dates, interest scope, cash-flow and return definitions. Restricted numerical examples do not establish participant assumptions, market evidence or standards compliance.

23 Sources and preparation status

Research reviewed on 12 October 2026. The narrative, Dalisay mixed-use scheme, forecasts, sensitivities, cases and assessment items are original educational work. They are not actual or recalled PRC examination questions.

Use the dated forecast to practise signs, timing, terminal periods and absorption. Use the separate static illustration to practise finance and profit bases. Preserve unrounded calculations and explain why different return conventions cannot be reconciled by mechanical averaging.

For actual assignments and clause-specific examination preparation, consult the full applicable Philippine standards and official requirements. A full IVS 410 clause review is required before any international compliance claim; selected conceptual checks below do not constitute that review. No assignment-specific compliance claim is made for the hypothetical exercises.

1 IVSC DCF and development framework

IVSC-authored redline effective 31 January 2025, hosted by ICAEW. Selected current text on printed page 55 addresses DCF mechanics; pages 167, 170 and 172 address residual analysis, timing and finance, and risk overlap. These pages were visually distinguished from deleted wording.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 IVSC official standards architecture

Official page identifies IVS 103 approaches, IVS 104 inputs, IVS 105 models, IVS 106 documentation, and IVS 410 development property.

https://ivsc.org/standards/

REALEX

Lesson 28

Approach Selection, Reconciliation and Uncertainty

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Select methods that answer the defined property question, investigate differences between their indications and explain the reliance placed on the evidence. Communicate uncertainty without substituting arithmetic averages for judgment.

This lesson develops the original Bayanihan competing-indications file, corrects income and cost defects, builds an evidence-quality rationale and tests income assumptions. It includes ten worked cases, a two-page worksheet and twenty original questions with explained answers.

All properties, transactions, losses, rates and sensitivity inputs are fictional teaching assumptions. Numerical blend calculations are explicitly critique exercises; the chapter's final reconciliation follows explained evidence and does not adopt an approach average.

Your learning goals

- Align asset boundaries interests dates and conditions.
- Select approaches by participant behaviour and evidence.
- Distinguish approaches methods and models.
- Assess relevance verification and adjustment support.
- Investigate competing indications before reliance decisions.
- Correct gross-versus-net income errors.
- Complete cost losses without overlap.
- Explain primary corroborating and limited reliance.
- Recognize shared data and assumption dependencies.
- Distinguish error uncertainty sensitivity and precision.
- Test one-factor and combined input scenarios.
- Write a defensible reconciliation and limitation paragraph.

Study plan: Allow four to five hours in two sessions. Read sections 1–8 for compatibility and investigation, then sections 9–16 for reconciliation and uncertainty. Attempt the cases, worksheet and test before checking the responses.

1 Reconcile an argument rather than a list of numbers

Reconciliation brings the valuation evidence and methods into an explained conclusion for the defined assignment. It asks why each indication deserves reliance, whether the models answer the same question and what remaining differences mean. It does not begin by treating every calculated amount as equally credible. A polished table can conceal a mismatched interest or an unsupported assumption.

The approach is the broad economic route: market comparison, income or cost. The method implements that route, such as a comparable-sale analysis, direct capitalization or discounted cash flow. A model applies specified inputs and assumptions. Choosing a method is therefore different from selecting a formula, and selecting a formula does not validate its data.

The checked international guidance considers method suitability and observable evidence, requires explained reconciliation rather than averaging, and calls for investigation where indications diverge widely. [1] The original illustrations in this chapter apply those concepts without prescribing national approach weights, universal divergence thresholds or an actual property appraisal.

Lessons 24–27 built separate comparison, cost and income models. Their lesson examples concern different fictional assets and questions. This chapter introduces one new subject so that competing indications can be compared on a consistent basis. The objective is to recognize an evidence problem before turning it into a supposedly final number.

2 Establish a common assignment specification

Before comparing amounts, align property interest, asset boundaries, basis of value, valuation date, condition, use premise and monetary units. Land-only scope cannot be combined mechanically with a land-and-building amount. A current leased interest cannot be treated as identical to a vacant-possession benchmark. An assumed completed development differs from the actual unfinished asset.

The original Bayanihan Court exercise concerns a fictional completed, moderately aged rental property with a 500-square-metre site and a 300-square-metre building. Its defined owner’s interest is subject to the supplied actual leases. The educational valuation date is 30 September 2026. Permitted use and the stated condition are stipulated appropriate, and the selected market-value inquiry concerns land and improvements together.

The exercise assumes that comparable leases and subject leases have compatible expense responsibilities, rents near the relevant market terms and no material transfer restriction or exceptional concession requiring an additional unresolved adjustment. Business goodwill, tenant movables and owner-specific financing are outside the scope. These stipulated facts make the later comparisons possible; actual work requires verification.

Prepare a scope check beside each indication. A different date or condition does not make an amount useless, but it needs a supported bridge before it answers the current question. If the bridge cannot be established, retain the observation with its proper label rather than quietly presenting it as a competing opinion on the same interest.

3 Select approaches by the asset and participant behaviour

A market approach is informative when relevant transactions can be verified and important differences can be supported. Income analysis is informative where expected economic benefits are a central participant consideration and their amount, timing and risk can be reasonably modeled. Cost analysis helps relate an asset to an appropriate new alternative after supported deterioration and obsolescence.

For an ordinary owner-occupied dwelling with active comparable sales, transaction evidence may carry strong relevance. For a leased investment with unusual rent steps or a short remaining term, explicit income timing may be necessary. For a specialised facility with scarce sales and difficult rent evidence, cost analysis may be important, while its utility and external losses still require examination.

These are selection examples, not fixed rankings. A warehouse does not always require income as the final controlling route. A new building does not guarantee cost equals market value. An income-producing asset can have excellent transaction evidence, and a large transaction database can contain poor comparables. Match the participant question with the available evidence.

Consider suitable alternatives even when one method is expected to lead. The number of methods used is not a quality score. Additional unsupported calculations can dilute an otherwise sound argument. Conversely, weak evidence in one method can make a suitable corroborating route valuable, provided its inputs are actually supportable.

4 Build an evidence-quality matrix

Evaluate relevance, verification, recency, comparability, adjustment support, model suitability and sensitivity. Explain the criteria in ordinary language. A verified achieved sale is different from an asking price, and a contract is different from an uncertain collection forecast. A contractor quotation can support cost while saying little about the market effect of external obsolescence.

Bayanihan's market file supplies three independently verified achieved transactions in the relevant segment. Their subject-equivalent whole-property indications are PHP 10.55 million, PHP 10.80 million and PHP 11.00 million after supplied adjustments. The middle transaction is especially similar in building use, condition, tenancy and date, and requires the smallest materially supported differences.

The income file has verified lease and operating records, but the selected capitalization rate has a wider plausible evidence range than the comparable prices. Some yield observations use the same transactions that inform the market route. The cost file has usable current construction support, while condition and obsolescence measurement for this aged rental property are less closely tied to direct participant pricing.

This matrix supports strong reliance on market comparison, income as a substantive corroborating check and cost as a secondary reasonableness check. It does not turn the verbal rankings into automatic percentages. Record weaknesses and the investigation needed; a numerical score cannot make missing lease evidence or an incorrect numerator acceptable.

Route	Evidence strength	Material limitation	Role
Market	Verified compatible achieved sales	Adjustment and tenancy checks required	Primary
Income	Verified lease and operating records	Less precise rate; partly shared price sources	Corroborating
Cost	Usable current construction support	Residual obsolescence less direct	Limited check

5 Examine the original competing indications

The initial Bayanihan summary lists market comparison PHP 10.8 million, income capitalization PHP 13 million and cost PHP 12.2 million. The income number was produced by dividing PHP 1.04 million effective gross income by an 8% net-income capitalization rate. The cost number combines site PHP 4 million with PHP 8.2 million improvements after physical loss but before identified residual functional and external effects.

Those initial results are not ready for reconciliation. Income uses a gross numerator against a net-income rate. Cost omits two supplied losses. The range from PHP 10.8 million to PHP 13 million may reflect correctable model differences rather than unavoidable valuation uncertainty. Establish the causes before deciding what deserves reliance.

A simple mean of the initial figures gives PHP 12 million: (10.8 +13 +12.2) /3. That calculation neither fixes the numerator nor adds the missing loss analysis. Choosing an amount between outputs is not sufficient reasoning, even if the final number looks less extreme than the highest indication.

Initial route	PHP million	Identified issue
Market	10.8	Compatible comparison file
Income	13.0	Gross EGI capitalized at net-income rate
Cost	12.2	Residual functional and external losses omitted
Simple mean	12.0	Does not repair identified defects

Keep an audit trail containing the original outputs, the detected issues, the corrections and their evidence. Do not erase the first versions and leave a reviewer unable to understand why the results changed. The workfile should show whether the revision corrects an error, updates evidence or adopts a different premise.

6 Correct the income model before evaluating its message

The Bayanihan operating file supplies effective gross income PHP 1,040,000 and recurring defined property deductions PHP 208,000, including the selected reserve convention. After-reserve NOI is PHP 832,000. The supplied 8% rate is calibrated to that same after-reserve annual net-income convention and the defined property interest.

The corrected income indication is PHP 832,000 /0.08 = PHP 10.4 million. The original PHP 13 million divided the wrong income by the rate. The correction reduces the result by PHP 2.6 million. Relative to the corrected PHP 10.4 million, the original amount was 25% higher; a percentage comparison must state its denominator.

This correction solves one identified error. It does not independently prove that 8% is the best actual rate or that the income forecast is fully reliable. Lease continuity, ordinary expenses, reserves, collections and rate evidence remain part of the argument. Inspect the sources after checking the formula.

The corrected amount is a relevant corroborating indication under the supplied exercise. It is not dismissed merely because it sits below the market conclusion. Its remaining difference may reflect rate selection or uncertainty in operating assumptions rather than an error requiring it to be forced to match the sales result.

7 Complete the cost-loss analysis without overlap

The initial cost indication PHP 12.2 million contains site PHP 4 million and PHP 8.2 million improvement contribution after already-applied physical deterioration. The exercise supplies a separately supported residual functional loss PHP 300,000 and improvement-only external loss PHP 400,000. Neither is included in the physical schedule or already removed from the selected cost benchmark.

Corrected improvements are PHP 7.5 million: 8.2 −0.3 −0.4. Adding the same site PHP 4 million gives PHP 11.5 million. The external loss is explicitly assigned to improvements and does not repeat an influence already reflected in the land input. These nonoverlap conditions are teaching assumptions; actual allocation needs evidence.

Cost correction	PHP million
Site amount	4.0
Improvements after physical loss	8.2
Distinct residual functional loss	−0.3
Distinct improvement external loss	−0.4
Corrected improvements	7.5
Corrected whole-property indication	11.5

Do not apply the physical loss a second time because the first result was high. Nor should an analyst create a balancing depreciation deduction solely to make cost equal the sale indication. The loss schedule must describe genuine supported effects relative to the chosen new alternative.

The corrected cost indication remains higher than the market and income results. For this moderately aged rental asset, construction support alone cannot determine what participants pay for the existing utility. Cost contributes a reasonableness check, but the less direct obsolescence evidence limits the reliance placed on that route.

8 Distinguish remaining divergence from a corrected error

After correction, Bayanihan indications are market PHP 10.8 million, income PHP 10.4 million and cost PHP 11.5 million. The corrected spread is PHP 1.1 million. A range alone cannot identify its cause. Review whether all three amounts still share the subject interest, date, condition and use premise.

Route	Corrected PHP million	Treatment
Market	10.8	Primary direct evidence
Income	10.4	Corroborating operating check
Cost	11.5	Limited reasonableness check

The exercise’s remaining differences arise from the selected income-rate convention and the weaker cost-loss measurement, rather than a land-only versus whole-property mismatch. The market file gives stronger direct pricing evidence for this subject. Explain that evidence assessment instead of labelling the largest number wrong merely because it is largest.

There is no chapter rule that a particular percentage gap automatically permits or prevents reconciliation. A small discrepancy can conceal a serious scope error. A large discrepancy can reveal an important difference in use or participant expectations. The materiality judgment depends on the assignment and what the difference implies.

If material divergence remains unexplained, continue investigation, reconsider the selected method or revise the scope where necessary. It may be impossible to provide a supportable final opinion under the available restrictions. A broad disclaimer and an arithmetic blend do not replace missing reasoning.

9 Explain reliance without a mechanical blend

Weight in an evidentiary sense describes the reliance assigned to an indication because of its strengths and weaknesses. It can be explained qualitatively: primary, corroborating or limited. The checked reconciliation guidance should not be converted into an instruction to average approach outputs. [1] The report needs the reasons for the conclusion, not only a table of shares.

For Bayanihan, the market route is primary because the exercise supplies verified transactions, compatible interests and well-supported differences. Income is corroborating because operating records are useful but rate selection is less precise and some transaction sources overlap. Cost receives limited reliance because obsolescence measurement is less directly anchored in participant pricing for the existing aged asset.

A separate diagnostic illustrates the limitation of numerical shares. Applying 60% to PHP 10.8 million, 30% to PHP 10.4 million and 10% to PHP 11.5 million produces PHP 10.75 million. The shares sum to 100%, but that does not establish their evidentiary validity or make the amount the proper final conclusion. This is an arithmetic critique exercise, not the chapter's reconciliation procedure.

Critique calculation only	PHP million
60% of market 10.8m	6.48
30% of income 10.4m	3.12
10% of cost 11.5m	1.15
Numerical blend	10.75
Evidence-led teaching conclusion	10.80

The subject-equivalent comparable analysis inside a selected market method is a different level of analysis from averaging separate approach conclusions. Even there, numerical workings require evidence and explanation. Prior lesson calculations do not authorize replacing final reconciliation with a blend of incompatible or unresolved models.

10 Reach the original Bayanihan teaching conclusion

The exercise concludes at PHP 10.8 million, giving primary reliance to the especially similar middle market transaction and the supported comparison analysis. The neighbouring adjusted transactions, PHP 10.55 million and PHP 11 million, provide context. The point is selected for its evidentiary relationship to the subject, rather than because it is the midpoint or an average.

Corrected income PHP 10.4 million supplies a substantive check on the conclusion. A useful reverse calculation is PHP 832,000 /PHP 10.8 million, or an implied rate of approximately 7.7037%. This falls inside the separately stipulated rate-testing band used later in the chapter. It tests compatibility; it does not justify selecting that rate solely to force the income result to match.

Corrected cost PHP 11.5 million is a weaker upper reasonableness check, with the identified residual-loss limitations. Its presence does not compel a compromise above the better-supported market indication. The report explains why direct evidence carries more reliance for the defined interest and condition in this fictional case.

The exercise's final amount is therefore PHP 10.8 million under supplied assumptions. The diagnostic numerical blend PHP 10.75 million and simple mean of corrected amounts PHP 10.9 million are not adopted.

Rounding the PHP 10.75 million blend to PHP 10.8 million would not repair its unsupported reasoning. A similar displayed number can conceal a very different analytical process.

11 Recognize dependence among evidence and models

Several outputs are not necessarily several independent confirmations. A market indication and an income yield may use the same transaction prices. A cost site amount may come from the same land comparisons. Multiple reports can repeat one underlying sale, quotation or rent assertion. Track the original source rather than counting appearances.

In Bayanihan, some yield observations draw from the same transactions used in the sales route. The operating records provide separate income information, but part of the market-rate support is shared. This means agreement between market and income results is only partly independent corroboration. It remains useful when explained, but its strength should not be overstated.

A spreadsheet with three methods can also share one optimistic forecast assumption across every result. If the same inflated market rent informs both income and a resale-price assumption, consistent outputs may reproduce the same bias. Independence concerns sources and causal assumptions, not merely different worksheet names.

An evidence map should identify shared inputs, independent verification and known dependencies. Correct duplicates in the source register. If the strongest source is later found unreliable, revisit every result dependent on it rather than adjusting only the most visible table.

12 Distinguish error, uncertainty and model risk

An error is a correctable mistake, such as the gross-versus-net numerator in the initial income model. Uncertainty concerns the limits of what is known about relevant inputs, conditions or the resulting opinion. Model risk concerns how a selected representation can misstate the asset’s economics, including oversimplified timing or unsuitable functional relationships.

Weak market activity, incomplete transaction verification, uncertain tenant continuity or unidentified building condition can create different kinds of uncertainty. A false area measurement may be an error; an unresolved area conflict may be an information limitation until investigated. Use precise descriptions of the cause rather than one generic statement that valuation is uncertain.

Sensitivity measures how an output responds to input changes. A scenario combines stated assumptions. A statistical confidence interval requires a justified statistical model and data. A range from a few hypothetical rates is not automatically a 95% confidence interval, and a wide spread of flawed methods does not quantify statistical uncertainty.

Precision concerns the level of detail in the number presented; accuracy concerns its relationship to the question and evidence. A result stated to the nearest peso can be arithmetically exact while supported only approximately. Keep precise workings for audit and choose a defensible presentation that does not suggest evidence finer than what is available.

13 Test the important income inputs

Hold Bayanihan NOI PHP 832,000 fixed and test a supplied cap-rate band of 7.6% to 8.4%. At 7.6%, the income amount is approximately PHP 10,947,368.42. At 8%, it is PHP 10.4 million. At 8.4%, it is approximately PHP 9,904,761.90. A higher positive denominator lowers the indication for the same income.

The band is a supplied diagnostic, not a prescribed market range or probability statement. It shows that plausible rate variation within the exercise can explain an income result close to the primary market conclusion. It does not permit choosing any rate in the band merely to achieve a requested amount.

Fixed NOI PHP	Supplied cap rate	Income amount PHP
832,000	7.6%	10,947,368.42
832,000	8.0%	10,400,000.00
832,000	8.4%	9,904,761.90

Separately hold the 8% rate constant and change NOI by 5% in each direction. Low NOI is PHP 790,400, giving PHP 9.88 million. High NOI is PHP 873,600, giving PHP 10.92 million. These changes could arise from specified operating scenarios, but the evidence must explain which revenue and expense rows move together.

One-factor tests clarify the response to each selected input. They can miss interactions: vacancy may affect rent, recoveries, management charges and some expenses simultaneously. State what was held constant and avoid presenting several separately calculated effects as independent if their causes overlap.

14 Use combined scenarios and investigate material limitations

A combined lower-income, higher-rate scenario uses NOI PHP 790,400 and an 8.4% rate, producing approximately PHP 9,409,523.81. A higher-income, lower-rate scenario uses PHP 873,600 and 7.6%, producing approximately PHP 11,494,736.84. These are scenario endpoints under selected joint assumptions, not measured limits of market value.

The combined spread is wider than either one-factor test because the two selected variables reinforce one another. It says nothing by itself about the likelihood of those combinations. A probability-weighted expected amount would require supported probabilities and an appropriate valuation application; inventing equal probabilities would introduce a new unsupported input.

Specified joint scenario	NOI PHP	Cap rate	Indication PHP
Lower income / higher rate	790,400	8.4%	9,409,523.81
Higher income / lower rate	873,600	7.6%	11,494,736.84

For a separate limitation case, the lease-expiry schedule is unavailable and a material portion of income depends on a tenant’s continued occupation. Obtain the agreement or suitable confirmation, examine expiry and options, and identify any assumption used. If the missing fact could materially alter the interest or cash-flow model, simply reducing the final figure by 5% does not resolve the information gap.

A condition limitation can similarly affect more than one route. Missing access to a plant room might impair inspection, cost-loss analysis and future expense forecasting. Explain the linked effects, seek proportionate further evidence and assess whether the available scope supports the intended conclusion. Do not allow a standard disclaimer to obscure the specific unresolved issue.

15 Write an original reconciliation and uncertainty paragraph

An effective report identifies the subject question, selected indications, material corrections, reasons for reliance, resulting conclusion and remaining limitations. The reader should be able to distinguish recorded

evidence from modeled amounts. Avoid boilerplate that says all approaches were considered without explaining what the consideration established.

An original Bayanihan teaching paragraph reads: The defined owner's interest is considered as at 30 September 2026 in the stipulated completed condition. Verified subject-equivalent sales indicate PHP 10.55 million to PHP 11 million, with the PHP 10.8 million transaction most closely matching the subject's tenancy, use and condition. Primary reliance is placed on that comparison analysis, supporting a conclusion of PHP 10.8 million.

The paragraph continues: Corrected after-reserve income capitalization indicates PHP 10.4 million and serves as a corroborating check; its rate support partly shares transaction sources with the market analysis. Corrected cost indicates PHP 11.5 million and receives limited reliance because residual obsolescence is less directly measured. Income sensitivity tests describe specified input scenarios rather than probability bounds around the opinion.

This is a template exercise grounded in fictional supplied evidence. In actual reporting, state the applicable basis and terms, identify material assumptions and restrictions, and explain their effects. A generic confidence label such as high or medium needs a meaningful definition if used; it cannot replace the stated evidence and limitations.

16 Preserve the review trail and the decision

A useful reconciliation workfile preserves the assignment specification, source register, evidence matrix, original and corrected models, dependency map, sensitivity record and final reasoning. Label revisions and their causes. Retain unrounded calculations while ensuring that the reported amount and its limitations agree across the summary, tables and conclusion.

A reviewer should be able to answer four questions: are the indications compatible; were material differences investigated; does the strongest evidence actually support the selected amount; and does the report communicate unresolved uncertainty without false precision? An arithmetic check is necessary where calculations are used, but it cannot answer those judgment questions by itself.

The official standards architecture links approaches with data, models and documentation. [2] The selected international concepts support this lesson's analysis. For actual assignment and clause-specific examination work, consult the full applicable national standards and official requirements rather than treating the original exercises as a compliance determination.

Lesson 29 moves to machinery, equipment and infrastructure. Carry forward the scope discipline: an installed plant asset, movable equipment, the real property interest and a statutory assessment amount can answer different questions. Reconciliation begins with those boundaries before comparing any monetary results.

17 Ten worked reconciliation cases

Attempt each question before reading the solution. Scope compatibility, evidence status and model definitions are stipulated where stated. Preserve each unit, calculation base and model convention.

Case 1 Check compatibility first

Question: A land-only indication is PHP 4m; a whole-property indication is PHP 10.8m. Both have the same date. Can they be averaged as competing values of the whole property?

Solution: No. Establish the asset and interest boundaries before reconciliation.

Reasoning: A shared date does not make different asset scopes equivalent. The land amount may be a component input, not a competing whole-property opinion.

Case 2 Choose a suitable income method

Question: A leased investment has material rent steps, a break option and a substantial reversion. Why might a flat direct-capitalization shortcut be insufficient?

Solution: It may omit material changes in the amount and timing of benefits; an explicit lease cash-flow model may be more suitable.

Reasoning: Selection follows rights, participant behaviour and evidence. A more detailed model is useful only if its schedule and assumptions are supportable.

Case 3 Correct the numerator

Question: EGI is PHP 1,040,000 and defined recurring deductions PHP 208,000. A compatible after-reserve net-income cap rate is 8%. Correct the initial PHP 13m indication.

Solution: NOI PHP 832,000; corrected indication PHP 10.4m. Reduction PHP 2.6m.

Reasoning: The initial calculation capitalized gross EGI with a net-income rate. Correcting that error precedes any evaluation of remaining rate uncertainty.

Case 4 Complete cost losses

Question: Initial cost PHP 12.2m includes site PHP 4m and improvements PHP 8.2m after physical loss. Distinct functional loss PHP 0.3m and improvement-only external loss PHP 0.4m remain. Calculate.

Solution: Improvements PHP 7.5m; corrected whole-property cost indication PHP 11.5m.

Reasoning: The extra losses are supplied as nonoverlapping. Do not repeat already-applied physical depreciation or create a deduction solely to match another result.

Case 5 Critique an initial mean

Question: Initial indications are PHP 10.8m, PHP 13m and PHP 12.2m. Calculate their simple mean, then explain why it does not resolve the file.

Solution: Mean PHP 12m. It does not correct the income numerator or complete the cost-loss analysis.

Reasoning: A blended amount can conceal incompatible or defective workings. Investigate the differences and evidence before reaching a conclusion.

Case 6 Critique numerical shares

Question: Apply diagnostic shares 60%, 30% and 10% to corrected market 10.8m, income 10.4m and cost 11.5m. Does a total of 100% justify the result as final value?

Solution: Arithmetic amount PHP 10.75m; no. The shares do not establish evidentiary validity.

Reasoning: This is a critique exercise. The final reconciliation requires explained reliance and judgment, not an automatic approach average.

Case 7 Explain the selected point

Question: Verified adjusted sales indicate PHP 10.55m, PHP 10.8m and PHP 11m. The middle record most closely matches the subject's use, tenancy and condition. Income is 10.4m; cost is 11.5m with weaker residual-loss evidence. Explain the teaching conclusion.

Solution: PHP 10.8m is supported by primary reliance on the especially similar market record and comparison analysis. Income corroborates; cost has limited reliance.

Reasoning: The conclusion follows supplied evidence quality. It is not adopted because it is a midpoint, mean or prescribed percentage combination.

Case 8 Identify source dependence

Question: Market comparison and income yield analysis both use the same achieved-sale prices, while income records are independently checked. Are the two routes fully independent confirmations?

Solution: No. They share part of their transaction support, although the operating records add separate information.

Reasoning: Trace underlying sources and assumptions. Different method labels do not guarantee independent evidence.

Case 9 Test rate sensitivity

Question: Hold NOI PHP 832,000 constant; test cap rates 7.6%, 8% and 8.4%. Calculate and interpret the range.

Solution: About PHP 10,947,368.42; PHP 10.4m; about PHP 9,904,761.90.

Reasoning: The supplied band is an input sensitivity test. It does not establish probabilities or a statistical confidence interval.

Case 10 Respond to a missing lease

Question: A material tenant's lease-expiry schedule is unavailable. An analyst suggests deducting a generic 5% from the conclusion and adding a disclaimer. What is the better response?

Solution: Seek the agreement or suitable confirmation, identify rights and options, assess the cash-flow effect and whether the scope supports a conclusion.

Reasoning: An arbitrary haircut does not establish the missing fact. Describe the specific limitation and the assumptions or further work needed.

18 Reconciliation and uncertainty worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Assignment compatibility

List the scope facts needed to reconcile Bayanihan whole-property indications. Identify why land-only, assumed completed and current leased-interest amounts can answer different questions.

_____

_____

_____

2 Income correction

EGI PHP 1.04m; defined after-reserve deductions PHP 0.208m; compatible net cap rate 8%. Compute NOI, corrected value, the reduction from PHP 13m and the original overstatement percentage using corrected value as denominator.

_____

_____

_____

3 Cost correction

Site 4m plus improvement contribution 8.2m after physical loss. Deduct distinct improvement functional loss 0.3m and external loss 0.4m. State two overlap controls.

_____

_____

_____

4 Arithmetic critique

Calculate the initial simple mean of 10.8m, 13m and 12.2m. Calculate corrected simple mean of 10.8m, 10.4m and 11.5m, then a diagnostic 60/30/10 blend of the corrected figures. Explain why these are not the reconciliation procedure.

_____

_____

_____

Evidence and uncertainty worksheet continued

5 Original reliance paragraph

Write a short conclusion supporting PHP 10.8m from verified adjusted sales 10.55m, 10.8m and 11m, with the middle record most similar. Describe income 10.4m as corroborating and cost 11.5m as limited, and disclose shared yield-price sources.

_____

_____

_____

6 One-factor sensitivity

For NOI PHP 832,000, calculate values at 7.6%, 8% and 8.4%. Separately change NOI by ±5% at 8%. Explain what each test holds constant.

_____

_____

_____

7 Combined scenarios

Calculate low NOI 790,400 at cap 8.4% and high NOI 873,600 at 7.6%. Explain why the endpoints are not a 95% confidence interval or established bounds around market value.

_____

_____

_____

8 Limitation and presentation audit

A material lease expiry is unverified and a model prints PHP 10,800,000.00. Describe investigation, reporting and presentation controls. Explain why decimals or a generic discount cannot cure the missing evidence.

_____

_____

_____

19 Review and examination checks

Review distinction	What to establish
Scope	Same asset and interest?
Date and condition	Actual or assumed premise aligned?
Approach selection	Participant relevance and reliable inputs?
Evidence status	Achieved asking contractual or forecast?
Income convention	Gross or compatible net?
Cost loss	Distinct effects already included?
Divergence	Investigated cause before conclusion?
Reliance	Evidence reasons rather than automatic shares?
Independence	Shared original sources disclosed?
Error	Correctable mistake addressed?
Sensitivity	Inputs varied and constants stated?
Scenario	Joint assumptions identified?
Probability	Statistical basis actually supplied?
Presentation	Precision supported by evidence?
Limitation	Specific effect and further work explained?

Explain the reconciliation chain

Align the assignment, assess the methods and evidence, investigate differences, correct defects, select the supported conclusion and communicate material uncertainty. Preserve the analysis supporting reliance rather than presenting an unexplained blend.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. Which is the necessary first step before reconciling a land-only amount and a whole-property amount?

A. Subtract accounting depreciation from both

B. Give each a 50% share

C. Take the higher amount

D. Align asset boundaries and the defined valuation question

2. A current leased owner's interest and an assumed vacant-possession benchmark differ principally in:

A. The rights and conditions represented

B. Only the number of decimal places

C. Whether pesos can be used

D. Whether either can contain land

3. Which factor most strongly supports approach selection?

A. A fixed rule requiring equal use of all three approaches

B. Suitability to the interest, participant behaviour and reliable evidence

C. The preference for whichever output is highest

D. The total number of spreadsheet tabs

4. A leased investment has material rent changes and a reversion. A useful reason to consider explicit cash-flow modeling is:

A. To ensure it always gives the largest value

B. To represent material timing and amounts of benefits

C. To avoid reading the lease

D. To substitute financing cost for every market assumption

5. Initial Bayanihan income capitalizes EGI PHP 1.04m at a net-income rate 8%. The key identified defect is:

A. The property has retail or rental use

B. The income is annual

C. The rate is expressed as a percentage

D. Gross numerator paired with a net-income rate

6. EGI PHP 1,040,000 less defined deductions PHP 208,000 gives NOI:

A. PHP 208,000

B. PHP 1,248,000

C. PHP 832,000

D. PHP 1,040,000

7. Corrected NOI PHP 832,000 divided by a compatible 8% rate gives:

A. PHP 6,656

B. PHP 13m

C. PHP 10.4m

D. PHP 11.5m

8. Initial cost 12.2m already includes physical loss. Distinct residual functional 0.3m and external 0.4m remain. Corrected amount is:

A. PHP 11.8m

B. PHP 12.9m

C. PHP 11.9m

D. PHP 11.5m

9. A simple mean of initial indications 10.8m, 13m and 12.2m is 12m. Why is it insufficient?

A. It is automatically a confidence interval

B. A mean is impossible to calculate

C. It leaves identified model errors unresolved

D. The highest indication must always control

10. Corrected indications 10.8m, 10.4m and 11.5m receive diagnostic shares 60%, 30%, 10%. Arithmetic gives:

A. PHP 10.4m

B. PHP 10.9m

C. PHP 10.8m

D. PHP 10.75m

11. Which is the strongest rationale for Bayanihan's PHP 10.8m teaching conclusion?

A. It is the required mean of all approaches

B. Primary reliance on verified comparable evidence and the most similar transaction

C. It always lies halfway between the extremes

D. It avoids describing any limitations

12. If two methods use the same underlying transaction prices, their agreement:

A. Makes every assumption accurate

B. Always provides two fully independent confirmations

C. Is partly dependent and should be described accordingly

D. Eliminates the need for source verification

13. Which item is a correctable error rather than a sensitivity assumption?

A. Changing a scenario vacancy assumption explicitly

B. Testing a stated plausible cap-rate band

C. Testing a hypothetical rent decrease

D. Using gross EGI with a net-NOI cap rate

14. With NOI 832,000 fixed and cap rate 7.6%, income amount is approximately:

A. PHP 9,904,762

B. PHP 10,947,368

C. PHP 10,400,000

D. PHP 9,880,000

15. With NOI 832,000 fixed and cap rate 8.4%, income amount is approximately:

A. PHP 9,904,762

B. PHP 10,947,368

C. PHP 11,494,737

D. PHP 10,920,000

16. NOI 832,000 decreases 5% while rate stays 8%. The revised amount is:

A. PHP 10.4m

B. PHP 10.92m

C. PHP 9.88m

D. PHP 9.409524m

17. Low NOI 790,400 combined with cap rate 8.4% produces approximately:

A. PHP 9,409,524

B. PHP 9,880,000

C. PHP 9,904,762

D. PHP 11,494,737

18. A range produced by selected hypothetical income and rate scenarios is best labelled:

A. A scenario range under stated assumptions

B. A 95% confidence interval without further analysis

C. A guaranteed boundary of market value

D. A probability distribution of all future prices

19. A material tenant's expiry is unavailable. The most appropriate next response is to:

A. Seek the lease evidence and assess the effect on rights, cash flow and scope

B. Apply an unexplained 5% deduction

C. Average more unsupported approaches

D. State a precise value and omit the missing fact

20. A model prints PHP 10,800,000.00. Which interpretation is best?

A. The cents prove the underlying evidence is exact

B. The displayed precision does not establish evidentiary accuracy

C. Rounding makes source verification unnecessary

D. Every report must preserve cents in its final opinion

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	D	11	B
2	A	12	C
3	B	13	D
4	B	14	B
5	D	15	A
6	C	16	C
7	C	17	A
8	D	18	A
9	C	19	A
10	D	20	B

1. D Different asset scopes are not competing opinions on the same whole property merely because both are monetary amounts.

2. A Lease obligations and rights can alter benefits. Establish a supported bridge before comparing the indications.

3. B Selection considers the asset question and the evidence available for a suitable method.

4. B An appropriate model must capture economically important lease timing with supportable inputs.

5. D The selected net-income convention requires the compatible NOI numerator rather than gross EGI.

6. C 1,040,000−208,000=PHP 832,000 under the supplied after-reserve convention.

7. C 832,000/0.08=PHP 10.4m. Correction precedes reconciliation.

8. D 12.2−0.3−0.4=PHP 11.5m with supplied nonoverlap conditions.

9. C Averaging does not fix the wrong income numerator or omitted cost-loss analysis.

10. D 0.6×10.8+0.3×10.4+0.1×11.5=PHP 10.75m. This critique exercise does not establish a final reconciliation.

Answer explanations continued

11. B The selected point follows the supplied evidence relationship to the subject; other routes have explained corroborating or limited reliance.

12. C Different models can share data or assumptions. Trace the dependency rather than counting method labels.

13. D The numerator mismatch is an identified model defect. Sensitivity explicitly varies inputs to examine effects.

14. B 832,000/0.076≈PHP 10,947,368. The numerator is held fixed.

15. A 832,000/0.084≈PHP 9,904,762. A higher rate lowers this positive-income indication.

16. C Low NOI=790,400; divided by 0.08 gives PHP 9.88m. The last amount belongs to a different combined scenario.

17. A 790,400/0.084≈PHP 9,409,524. Both income and rate change in this specified scenario.

18. A Statistical confidence requires a justified model and data; scenarios alone do not supply it.

19. A Investigate the specific limitation and evaluate whether available information supports the intended opinion.

20. B Preserve precise workings for audit, but the presentation must not imply support finer than the evidence.

Worksheet model responses

Response 1

Align interest, asset boundaries, basis, date, actual or assumed condition, use premise and currency. Verify lease and expense terms, included assets and any material limitations. A land component differs from a whole-property opinion; assumed completion differs from existing condition; leased rights differ from vacant-possession rights.

Response 2

NOI=1.04m−0.208m=PHP 0.832m. Corrected=0.832m/0.08=PHP 10.4m. Reduction=PHP 2.6m. Original excess relative to corrected=2.6/10.4=25%. The error correction does not independently verify the income or rate evidence.

Response 3

Improvements=8.2−0.3−0.4=PHP 7.5m; total=PHP 11.5m. Physical loss is already applied. Functional and external deductions must be distinct and not already reflected in the selected replacement or site inputs.

Response 4

Initial mean=PHP 12m. Corrected mean=(10.8+10.4+11.5)/3=PHP 10.9m. Diagnostic blend=6.48+3.12+1.15=PHP 10.75m. Means and shares do not repair errors, establish relevance or justify final reliance. Explain evidence and investigate differences.

Response 5

Model paragraph: Primary reliance is placed on verified compatible sales and the especially similar PHP 10.8m indication, supporting PHP 10.8m for the defined interest and date. Corrected income PHP 10.4m is a substantive check, with less precise rate support partly sharing transaction sources. Cost PHP 11.5m receives limited reliance because residual obsolescence is less directly measured.

Response 6

Constant NOI: PHP 10.94736842m at 7.6%; PHP 10.4m at 8%; PHP 9.90476190m at 8.4%. Constant rate8%: low NOI PHP 790,400 gives PHP 9.88m; high PHP 873,600 gives PHP 10.92m. Each is a supplied one-factor diagnostic, not a probability statement.

Response 7

Low combined=790,400/0.084≈PHP 9.40952381m. High combined=873,600/0.076≈PHP 11.49473684m. The selected inputs reinforce each other. No statistical distribution or probability evidence is supplied, so the endpoints are scenarios, not confidence bounds.

Response 8

Obtain the lease or suitable confirmation; examine term, options and income exposure; assess whether the scope supports the opinion. State the specific limitation, assumptions and potential effect. Preserve precise workings internally and use a defensible displayed amount. Printed cents imply no additional evidentiary accuracy; a generic haircut does not establish expiry.

22 Essential terms and calculation review

Approach Broad market income or cost route.

Method Specific implementation suited to the valuation question.

Model Representation using defined inputs and assumptions.

Reconciliation Explained judgment bringing relevant evidence to a conclusion.

Primary reliance Leading evidentiary role supported by stated strengths.

Corroboration Relevant check with its own support and dependencies.

Source dependence Shared data or assumptions underlying different outputs.

Error Correctable mistake in facts or workings.

Uncertainty Limits of knowledge relevant to the opinion.

Sensitivity Output response to stated input changes.

Scenario Specified combination of assumptions.

False precision Detail in presentation exceeding evidentiary support.

Teaching relationship	Check
Compatible NOI	EGI − defined recurring deductions
Net-income indication	Compatible annual NOI / cap rate
Cost correction	Existing subtotal − distinct omitted losses
Initial arithmetic mean	(10.8 + 13 + 12.2) / 3 = 12m; critique only
Corrected mean	(10.8 + 10.4 + 11.5) / 3 = 10.9m; not adopted
Diagnostic blend	0.6×10.8 + 0.3×10.4 + 0.1×11.5 = 10.75m
Implied net rate check	832,000 / 10.8m ≈ 7.7037%
Low and high NOI	832,000 × 0.95 or × 1.05
Joint scenario	Specified NOI / specified cap rate

The arithmetic mean and blend rows are critique exercises. The teaching conclusion is PHP 10.8 million through explained primary reliance on the compatible comparison evidence. Scenario endpoints are not statistical confidence bounds.

23 Sources and preparation status

Research reviewed on 12 October 2026. The narrative, Bayanihan competing-indications file, corrections, sensitivity tests, cases and assessment items are original educational work. They are not actual or recalled PRC examination questions.

Use the file to practise compatibility, investigation, evidence quality and reporting. The numerical-share example is deliberately an arithmetic critique; it does not prescribe approach weights or replace the explained reconciliation. Preserve the distinction between model correction and remaining uncertainty.

For actual assignments and clause-specific examination preparation, consult the full applicable Philippine standards and official requirements. Selected international concept checks do not constitute a complete national clause audit or a determination of assignment-specific compliance.

1 IVSC approach selection and reconciliation

IVSC-authored redline effective 31 January 2025, hosted by ICAEW. Current text on printed pages 45–46 was visually checked: IVS 103 sections 10.04–10.07 concern selection and explained reconciliation; section 10.09 addresses divergent indications. Deleted wording was distinguished.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 IVSC official standards architecture

Official page identifies IVS 103 approaches, IVS 104 inputs, IVS 105 models, IVS 106 documentation, and IVS 400 real property interests.

https://ivsc.org/standards/

REALEX

Lesson 29

Machinery, Equipment and Infrastructure

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Define the plant assets and rights, establish the installed or removed premise, and support costs and distinct losses. Keep professional valuation separate from the statutory assessment and tax calculation.

This lesson develops the original Silangan asset register, installed cost build-up, component depreciation and obsolescence, removal-cost examples and independent machinery assessment exercises. It includes ten worked cases, a two-page worksheet and twenty original questions with explained answers.

All assets, prices, lives and rates in the financial examples are fictional teaching inputs. Statutory examples expressly stipulate their convention, classification and local ordinance inputs; they do not determine a named taxpayer's actual bill or a complete national standards conclusion.

Your learning goals

- Identify plant asset rights and component boundaries.
- Build an original asset register with ownership and exclusions.
- Distinguish in-place utility removed prices and net proceeds.
- Reconcile equipment delivery installation and commissioning.
- Apply physical loss and distinct obsolescence without overlap.
- Use remaining life and operating-unit conventions consistently.
- Examine complementary systems and supporting site rights.
- Relate IVS 300 to real property and infrastructure scope.
- Read machinery provisions with the RA 12001 framework.
- Distinguish annual depreciation ceilings and conditional floors.
- Calculate a stipulated assessed amount and separate levies.
- Report evidence limitations and the purpose of each output.

Study plan: Allow five hours in two sessions. Read sections 1–8 for the asset and cost model, then sections 9–16 for premise, infrastructure and assessment. Attempt the cases, worksheet and test before checking the responses.

1 Define the asset and the valuation question

Machinery, equipment and infrastructure valuation begins with the asset boundary, rights, intended use, basis, date and premise. The inquiry may concern an owned machine installed in an operating system, equipment offered for removal, a right to use leased equipment or a network whose parts work together. Those questions can produce different amounts without one calculation being wrong.

Plant valuation is not automatically business valuation. An operating enterprise can contain land, buildings, equipment, working capital, contractual rights and goodwill. A production machine contributes to that enterprise, but capitalizing all business profit and calling the result machinery value can include benefits belonging to other assets. Identify the unit of account before selecting an approach.

The checked IVS 300 framework addresses plant, equipment and infrastructure, complementary systems, asset circumstances and the difference between in-place and removed premises. [1] The original examples in this lesson use explicit supplied assumptions; they do not prescribe actual machinery prices, engineering lives or a complete assignment-specific standards conclusion.

A separate Philippine assessment inquiry introduces statutory definitions, valuation provisions, classification and tax policy. A professional plant indication, accounting carrying amount, assessed value and tax bill are distinct outputs. Learn their relationships, but retain the label and source of each amount rather than interchanging them.

2 Build the original Silangan asset register

Silangan Cold-Chain Works is a fictional privately operated facility. The educational valuation date is 30 September 2026. The owned plant exercise comprises M-01 an ice-production assembly, M-02 a standby generator, M-03 a solar electrical package and M-04 a dedicated pumping and distribution network. The components are used within the stipulated permitted operation.

The register also identifies L-01 a leased forklift, B-01 the building and S-01 the site. L-01 is outside the owned-asset total, although its lease right and obligations could be valued under a separately defined assignment. B-01 and S-01 are excluded from the plant arithmetic. Exclusion from this professional ownership total does not establish a tax exemption.

Use permanent identifiers and record description, make, model, serial number, location, ownership evidence, installation date, condition, maintenance record and capacity. Separate an asset tag from a verified ownership right. A finance lease, security interest, supplier retention clause or third-party installation can change the interest being valued even when the equipment is physically present.

The register should also record scope inclusions. M-01 includes its dedicated process connections and allocated installation supports; M-04 includes its specified pipework and trench works. The general building and site works are not repeated in those rows. The main calculation assumes these boundaries are nonoverlapping and no separately valued software right is included.

ID	Original asset group	Rights / status	Plant total
M-01	Ice-production assembly	Owned; in-place	Included
M-02	Standby generator	Owned; in-place	Included
M-03	Solar electrical package	Owned; in-place	Included
M-04	Dedicated pumping network	Owned; subsystem	Included
L-01	Forklift	Leased; separate right	Excluded
B-01	General building	Separate real property scope	Excluded
S-01	Site	Separate real property scope	Excluded

3 Investigate condition, capacity and remaining utility

Check whether the listed asset exists, whether its specification matches the register and whether it is operating as described. Inspection and technical records can reveal missing components, idle units, modifications, corrosion, abnormal downtime or substantial maintenance. A book entry or photograph alone may not establish condition and capability.

Distinguish rated capacity from actual effective output. A machine may have nominal throughput that cannot be achieved because of power supply, feedstock, bottlenecks, controls or complementary systems. The asset's utility depends on the defined operation and feasible alternatives, not solely on the capacity plate. Obtain appropriate technical expertise where the question exceeds the valuer's competence.

Maintenance affects condition and expected life, but it does not remove every functional or external disadvantage. A well-maintained older machine may consume more energy than a modern alternative. A nearly new machine may lose utility after its product market contracts. Identify cause and effect rather than applying one age percentage to every asset.

Record inspection restrictions and their likely significance. A machine that cannot be operated for testing may still have useful records, but an unverified performance claim is not equivalent to demonstrated output. Explain what was checked, what remains assumed and whether the available evidence supports the intended opinion.

4 Distinguish in-place use, removal and liquidation

An in-place analysis concerns the asset at its existing location under the specified use and supporting conditions. A removed analysis concerns the item or group outside that installed setting. Identify whether the asset is operating, available for reuse, offered piecemeal or sold as a complementary system. The words installed and operational do not independently establish the selected value basis.

Installation, foundations and dedicated connections may contribute to an in-use system while being partly unrecoverable on removal. A buyer of a loose machine may incur transport, installation and commissioning costs at a new location. The seller may incur decommissioning, lifting, removal and reinstatement obligations. Define which party bears each cost and which amount the assignment seeks.

Orderly disposal and a compelled sale are not identical conditions. A liquidation premise must describe the relevant location, marketing and sale assumptions. An instruction to sell equipment does not justify an

automatic forced-sale discount. The checked IVS 300 discussion distinguishes premise, removed costs and gross versus net realization where those amounts are required. [1]

A removed-price observation can inform an in-place analysis after relevant differences are addressed. It should not be compared directly with an installed-cost figure that includes different components and services. Keep the original evidence status visible throughout normalization.

5 Construct the installed replacement cost of M-01

The Silangan M-01 example prices a suitable equivalent-utility ice-production assembly at the valuation date. The supplied equipment-only amount is PHP 4 million. Freight is PHP 200,000, transit insurance PHP 50,000, nonrecoverable import duties and taxes PHP 300,000, and separate bank and handling charges PHP 50,000. Delivered cost is PHP 4.6 million.

Dedicated erection and installation supports add PHP 400,000, and commissioning and acceptance testing add PHP 200,000. Installed replacement cost new is PHP 5.2 million. Every item is separately stipulated and excludes the other rows. The PHP 300,000 is an original allowance, not an actual tariff or tax rate determination.

M-01 cost-new component	PHP
Equivalent-utility equipment	4,000,000
Freight	200,000
Transit insurance	50,000
Stated nonrecoverable import allowance	300,000
Separate bank and handling	50,000
Delivered subtotal	4,600,000
Dedicated installation	400,000
Commissioning and acceptance	200,000
Installed replacement cost new	5,200,000

Read supplier terms before adding allowances. An installed turnkey price may already contain freight, duties, foundations, controls or commissioning. A bare equipment quotation may omit them. Recoverable taxes, transport responsibility and contractual handover condition need the appropriate participant treatment; simply adding every invoice label can repeat the same cost.

This example uses replacement, rather than reproduction, because the selected benchmark supplies the necessary utility with a suitable current alternative. An exact replica may be relevant for another defined asset. Do not start with a lower-cost modern substitute and deduct the entire excess replica-cost difference again without checking what the benchmark already removes.

6 Complete the component cost-new schedule

M-02 generator cost new is PHP 1.4 million: equipment PHP 1.2 million, transport PHP 50,000, installation PHP 100,000 and testing PHP 50,000. M-03 solar electrical package is PHP 1.8 million: equipment PHP 1.5 million, transport PHP 60,000, installation PHP 140,000 and commissioning PHP 100,000.

M-04 pumping and distribution network is PHP 1 million: equipment PHP 600,000, specified pipe and trench civil works PHP 300,000 and separate installation PHP 100,000. The PHP 300,000 is allocated to this network only; the site or building model must not include the same work again when component values are combined.

Installed cost new for the four owned groups totals PHP 9.4 million: 5.2 +1.4 +1.8 +1.0. These figures are current fictional benchmarks, not the historical ledger balance. The ownership and scope schedule explains why the forklift, general building, land and intangible business benefits are excluded.

Older cost evidence may require adjustments for date, location, specification and atypical expenditure. A compatible PHP 2 million equipment subtotal at index 125 updated to index 150 gives PHP 2.4 million under a supplied proportional convention. The factor is 150/125, or 1.20; it does not automatically apply to every installation or financing allowance.

7 Apply physical loss and residual obsolescence to M-01

The M-01 breakdown starts with installed cost PHP 5.2 million. A supplied curable physical slice PHP 200,000 is deducted and excluded from the residual age-life base. The remaining PHP 5 million has effective age 4 years and remaining economic life 16 years, giving a total modeled life of 20 years and a physical fraction of 20%.

Residual physical loss is PHP 1 million. Total physical deduction is PHP 1.2 million including the curable slice, leaving PHP 4 million. The schedule does not apply 20% to the whole PHP 5.2 million and then deduct the same curable slice again. Component-base reconciliation precedes the multiplication.

A separately supplied residual functional loss PHP 300,000 reduces the subtotal to PHP 3.7 million. A product-specific external loss of 10% applies to that post-physical, post-functional amount, producing PHP 370,000. M-01's stipulated in-place teaching indication is PHP 3.33 million.

M-01 model stage	PHP
Installed cost new	5,200,000
Curable physical slice	−200,000
Residual physical loss: 20% of 5m	−1,000,000
Post-physical subtotal	4,000,000
Distinct functional loss	−300,000
External base	3,700,000
External loss: 10% of base	−370,000
Component indication	3,330,000

The functional and external deductions are defined as nonoverlapping with the selected replacement benchmark and physical schedule. The external effect is assigned to M-01's product utility in this exercise; the

other groups are stipulated to retain their separate relevant utility. These rates and allocations require independent support in actual work rather than automatic transfer to every plant item.

8 Use remaining life and utilization consistently

M-02 uses an explicitly physical-only, zero-residual age-life model. Effective age is 3 years and remaining life 7 years, total 10 years. Physical loss is 30% of PHP 1.4 million, or PHP 420,000; remaining contribution is PHP 980,000. No additional functional or external loss is stipulated for this component.

M-03 has effective age 2 years and remaining life 10 years, total 12. Physical loss is 2/12 of PHP 1.8 million, or PHP 300,000; remaining contribution PHP 1.5 million. M-04 has effective age 5 and remaining life 15, total 20; physical loss is PHP 250,000 from PHP 1 million, leaving PHP 750,000.

The component total is PHP 6.56 million: M-01 PHP 3.33 million, M-02 PHP 980,000, M-03 PHP 1.5 million and M-04 PHP 750,000. It is a teaching aggregation under compatible in-place assumptions and nonoverlapping boundaries. Actual system value needs review of complementary utility and any remaining group-level effects.

Owned group	Cost new PHP	Teaching indication PHP
M-01	5,200,000	3,330,000
M-02	1,400,000	980,000
M-03	1,800,000	1,500,000
M-04	1,000,000	750,000
Total under stated scope	9,400,000	6,560,000

Life consumption can also be expressed in appropriate operating units. An independent physical-only example assumes total useful production of 40,000 hours, 10,000 consumed, zero residual and cost PHP 2 million. Remaining fraction is 30,000/40,000, or 75%, giving PHP 1.5 million. Calendar age alone does not replace a relevant condition and utilization analysis.

9 Distinguish physical, functional and external causes

Physical deterioration concerns wear, damage and condition. Functional loss concerns utility relative to a suitable alternative, such as inefficient energy use, outdated controls or unsuitable capacity. External loss concerns influences beyond the asset, including product demand, regulatory constraints or disrupted inputs. One operational symptom can have several causes, so trace each deduction to a distinct effect.

A separate operating-cost example stipulates net excess energy expense PHP 80,000 at each year-end for three years. At a supplied 12% discount rate, the ordinary-annuity factor is approximately 2.40183127. Present loss is approximately PHP 192,146.50. This illustration assumes fixed expense, no escalation and no earlier remedy that removes the shortfall.

That amount is not added to M-01’s separately stipulated PHP 300,000 functional loss. The examples are different models. If a new control system cures the inefficiency, examine its cost, restored benefit and any remaining operating loss; deducting the full cure cost plus the unmitigated old expense stream can double count.

Idle capacity is not automatically total worthlessness. Equipment can retain alternate-use or disposal potential, subject to market evidence and costs. Conversely, a fully operational asset can have weak economic utility. Engineering performance and valuation relevance are related inquiries, but they are not the same conclusion.

10 Compare loose price, buyer cost and seller net proceeds

A separate M-01 removed-sale exercise supplies an achieved loose-machine gross price PHP 2.9 million. Seller removal cost is PHP 150,000, preparation PHP 50,000 and selling expense PHP 100,000. Under the expressly requested net-realization calculation, seller net proceeds are PHP 2.6 million.

The buyer separately expects transport PHP 120,000, reinstallation PHP 250,000 and commissioning PHP 80,000. The resulting acquisition-and-readying outlay is PHP 3.35 million: 2.9 +0.12 +0.25 +0.08. This is the buyer's cost exercise, not the seller's net receipt or an automatically established installed market value.

The professional in-place teaching indication PHP 3.33 million, gross removed price PHP 2.9 million, net seller realization PHP 2.6 million and buyer outlay PHP 3.35 million have different definitions. Their differences do not authorize averaging them. Examine condition, utility, timing, rights and the cost responsibilities represented.

Separate output definition	PHP million
M-01 in-place teaching indication	3.33
Independent gross removed price	2.90
Requested seller net realization	2.60
Buyer acquisition-and-readying outlay	3.35

Transaction expenses are deducted here because the exercise expressly requests net proceeds. Do not convert that convention into a universal instruction to deduct a seller's commission from every market-value opinion. The value basis and the particular gross or net question must remain explicit.

11 Value infrastructure as a defined system

Infrastructure can comprise networks and complementary groups: electrical distribution, water facilities, transport systems or other service assets. An individual component can depend on upstream supply, control equipment, access rights or operating permissions. Identify the whole system, separable subsystems and the interest held before assigning individual contributions.

Silangan M-04's pump, pipework and trench works form a dedicated distribution subsystem. The main register allocates their cost to that row. A building estimate that also includes the same pipe trench would overlap. A system boundary drawing or a component map can help establish which model carries each physical and civil item.

A right to use a site or building can end before the machine's remaining service life. An asset with ten years of useful capability located under a three-year occupancy right may require analysis of removal, relocation, renewal or loss of supporting facilities. Ten years of technical capability does not guarantee ten years of benefits at the current location.

Public ownership, concession rights and regulated service arrangements can change both the professional valuation question and taxation. A private pumping network is not automatically exempt merely because it

supplies water. Identify the actual statutory category, owner or beneficial use, relevant exemption and supporting evidence rather than inferring tax status from the asset's name.

12 Separate the Philippine statutory framework from plant modeling

RA 12001 provides the market-value and PVS reform framework and distinguishes valuation from tax policy. Its definition of SMV excludes machinery from that table, while machinery remains subject to the Act's valuation framework. The Act also provides for consistent existing laws to apply suppletorily. Its repeal provisions and current implementing guidance must be considered when applying earlier Code provisions. [3]

The Local Government Code contains machinery-specific valuation provisions in section 224, depreciation conditions in section 225 and assessment-level rules in section 218. [2] They are studied here with RA 12001 rather than treated as a separate unrestricted professional appraisal method. A real assessment requires the applicable national guidance, assessor's determination and local ordinance.

The statutory machinery concept is broader than a simple permanently bolted-machine test; attachment alone does not decide classification. RA 12001's definition includes equipment and certain mobile or unattached facilities used in the described industry or activity. [3] Conversely, a professional PEI asset label does not itself establish that every item is taxable machinery under a particular factual and legal setting.

The following statutory exercises expressly stipulate the applicable calculation convention, classification and rates. They are not an actual Silangan assessment or a statement that a particular LGU currently applies these inputs. Keep professional value, statutory valuation amount, assessed value and levy separate in both workings and answers.

13 Practice the remaining-life and depreciation provisions

Section 224 describes acquisition cost for brand-new machinery and, for other machinery, a remaining-economic-life to estimated-economic-life ratio applied to replacement or reproduction cost. Its imported acquisition-cost provision includes specified transport, insurance, handling, duties, taxes and site-related charges. [2] Check cost inclusions rather than assuming a supplier's bare price is the complete statutory acquisition amount.

In an independent section-224 exercise, replacement cost is PHP 5 million, remaining economic life 12 years and estimated total economic life 20 years. The supplied statutory valuation computation is 12/20 ×5 million = PHP 3 million. The fraction is remaining life divided by total life, not 12 divided by the eight years already consumed.

Section 225 states an annual assessment depreciation ceiling of 5% of the relevant cost base and a remaining-value floor of 20% while the machinery is useful and operating. [2] It does not say that every annual depreciation rate must equal 5%, and that conditional floor is not a guaranteed professional sale price for every discarded asset.

A separately specified section-225 exercise uses PHP 5 million base, eight years of use and the maximum 5% simple annual allowance. Loss is 40%, PHP 2 million, leaving PHP 3 million. At eighteen years the uncapped remainder would be 10%, PHP 500,000; the useful-and-operating condition triggers a PHP 1 million floor. Do not apply a remaining-life reduction and another full annual deduction for the same loss without an expressly justified assessment procedure.

Separate statutory exercise	Defined calculation	PHP
Remaining-life illustration	5m × 12/20	3,000,000
8-year maximum annual allowance	5m × (1 – 8×5%)	3,000,000
18-year uncapped remainder	5m × (1 – 18×5%)	500,000
Useful and operating floor	5m × 20%	1,000,000

14 Convert the stipulated valuation amount into tax

The tax exercise uses the independent PHP 3 million valuation amount, not the professional four-group total PHP 6.56 million. Classification is stipulated industrial machinery, nonexempt. The hypothetical city ordinance fixes the assessment level at 80%, basic real property tax at 2% of assessed value and SEF at 1%. No discount, penalty, exemption or transitional restriction is assumed to alter the stated calculation.

Assessed value is PHP 2.4 million: 3 million ×80%. Basic levy is PHP 48,000: 2.4 million ×2%. SEF is PHP 24,000: 2.4 million ×1%. The two selected annual levies total PHP 72,000. Applying 2% directly to PHP 3 million would confuse valuation amount with assessed value.

Stipulated assessment / levy stage	PHP
Independent valuation amount	3,000,000
Adopted assessment level	80%
Assessed value	2,400,000
Basic RPT at 2% of assessed	48,000
SEF at 1% of assessed	24,000
Combined selected annual levies	72,000

The Code’s machinery assessment levels are ceilings fixed through the applicable ordinance; its industrial machinery ceiling is 80%. Basic RPT ceilings differ for provinces and cities or Metropolitan Manila municipalities, and the Code permits the additional SEF levy. [2] The example uses stipulated local inputs, not a universal instruction that every industrial machine is assessed at 80% or taxed at 3%.

RA 12001 also contains transition and tax-increase provisions associated with approved SMVs. [3] For a live bill, verify their applicability, the operative rules and local measures, as well as actual use and exemptions. A correctly multiplied hypothetical levy does not establish the amount legally payable by a named owner for a particular tax year.

15 Reconcile outputs and communicate the asset boundaries

The Silangan professional model reports PHP 6.56 million for the four included owned plant groups under its stipulated in-place condition and scope. Its cost new is PHP 9.4 million. The difference PHP 2.84 million reflects

the defined physical, functional and external deductions; it is not an accounting accumulated-depreciation balance.

The independent statutory exercises produce PHP 3 million under specified life inputs and PHP 2.4 million assessed value under the stipulated assessment level. The PHP 72,000 annual levy is a tax computation. These examples concern different stated inputs; their numerical differences are not a reconciliation of competing market-value opinions on the same asset scope.

An effective report states the asset register, ownership and exclusions, premise, inspection and condition support, cost or transaction evidence, component losses, system dependencies and conclusion. If business income or embedded software is relevant, identify the corresponding boundary and specialist work rather than silently adding all enterprise benefits to plant.

When evidence is insufficient, explain the specific limitation and its effect. A missing serial number can impair identity; untested operation can impair condition support; unknown site rights can impair the assumed in-place life. A blanket percentage reduction does not establish the missing fact or make the opinion supportable.

16 Audit the computation and the professional interface

Check the chain from identity to rights, from equipment price to delivered and installed cost, from condition to distinct loss bases, and from component results to the defined system. Ensure that dedicated civil works, software and building services are assigned once. Verify units such as hours, years, capacity and monetary amounts before applying life fractions.

For assessment questions, identify the specific statutory provision and supplied facts. Distinguish a maximum from a mandatory actual rate, the remaining-value floor from an assessed-value percentage and the valuation amount from the tax base. Retain separate rows for valuation, assessment and each levy so that a correct subtotal is not used for the wrong purpose.

The lesson uses checked IVS 300 concepts and enacted Philippine provisions, with original restricted examples. Full applicable PVS, implementing issuances and local measures remain necessary for assignment-specific or current-tax determinations. The chapter’s arithmetic and source checks do not constitute a complete national standards audit.

Lesson 30 examines specialised property and interests. Carry forward the same boundary discipline when valuing hospitality, agricultural or special-purpose facilities: plant, real property, business benefits and tax outputs must answer the defined question before their amounts can be meaningfully compared.

17 Ten worked plant and assessment cases

Attempt each question before reading the solution. Asset rights, cost inclusions and calculation conventions are stipulated where stated. Preserve each unit, calculation base and model convention.

Case 1 Set the ownership boundary

Question: Silangan has four owned plant groups, a leased forklift, a building and land. The assignment is the owned plant total. What belongs in the register and monetary aggregation?

Solution: Register all relevant items with their status; include only the four specified owned groups in this total.

Reasoning: Physical presence is not ownership. The excluded lease right, building and land can require separate valuation, and exclusion here is not a tax exemption.

Case 2 Build installed M-01 cost

Question: Equipment PHP 4m; freight 0.2m; insurance 0.05m; nonrecoverable import allowance 0.3m; bank/handling 0.05m; dedicated installation 0.4m; commissioning 0.2m. Sum delivered and installed costs.

Solution: Delivered PHP 4.6m; installed replacement cost new PHP 5.2m.

Reasoning: Each row is supplied as separate. Read a quotation’s inclusions before adding allowances; no real import tax rate is prescribed.

Case 3 Exclude the curable slice

Question: M-01 cost PHP 5.2m includes a supplied PHP 0.2m curable physical slice. Remaining base PHP 5m has effective age 4 and remaining life 16. Compute physical loss and subtotal.

Solution: Fraction 4/(4+16)=20%; residual loss PHP 1m; total physical loss PHP 1.2m; subtotal PHP 4m.

Reasoning: The curable slice is excluded from the residual age-life base. Applying 20% to all 5.2m and adding 0.2m would overlap.

Case 4 Complete M-01 obsolescence

Question: Post-physical PHP 4m less distinct functional 0.3m, then external 10% of the resulting subtotal. Calculate.

Solution: Post-functional PHP 3.7m; external PHP 0.37m; M-01 indication PHP 3.33m.

Reasoning: The percentage base and sequence are explicitly supplied. Other assets do not automatically receive the same external rate.

Case 5 Compute M-02 life consumption

Question: Installed cost PHP 1.4m; effective age 3 years and remaining life 7. Physical-only zero-residual model; no other loss stipulated.

Solution: Total life 10; physical deduction 30%=PHP 420,000; remaining PHP 980,000.

Reasoning: Age plus remaining life supplies the denominator. This is a valuation teaching model, not an automatic statutory allowance.

Case 6 Use operating hours

Question: An independent physical-only machine has cost PHP 2m, total useful hours 40,000 and consumed hours 10,000. Zero residual. Find remaining fraction and contribution.

Solution: Remaining 30,000/40,000=75%; PHP 1.5m.

Reasoning: Relevant utilization can inform a defined physical model. It does not establish all functional or external effects.

Case 7 Separate gross and net removal amounts

Question: Gross loose-machine price PHP 2.9m. Seller removal 0.15m, preparation 0.05m and selling 0.1m. Buyer transport 0.12m, install 0.25m and commissioning 0.08m. Find seller net and buyer readying outlay.

Solution: Seller net PHP 2.6m. Buyer acquisition-and-readying cost PHP 3.35m.

Reasoning: These answer different questions. Seller expenses are deducted because net realization is expressly requested, not as a universal market-value rule.

Case 8 Practice the remaining-life statute

Question: In a separately stipulated section 224 exercise, replacement cost PHP 5m, remaining economic life 12 and estimated total life 20. Calculate the stated valuation amount.

Solution: 12/20×5m=PHP 3m.

Reasoning: The ratio is remaining to total life. Read the provision with the current reform framework and applicable guidance for actual assessment.

Case 9 Apply the conditional assessment floor

Question: Specified section 225 exercise: base PHP 5m, 18 years of use,5% simple annual allowance; machine is useful and operating. Calculate uncapped remainder and applicable floor.

Solution: Uncapped 10%=PHP 0.5m; conditional 20% floor=PHP 1m.

Reasoning: Five percent is the annual ceiling, not always the actual rate. The operating floor belongs to the stated assessment provision, not every professional disposal value.

Case 10 Compute the stipulated levies

Question: Independent valuation amount PHP 3m; nonexempt industrial machinery; stipulated city ordinance AL 80%, basic RPT 2% and SEF 1% of assessed value; no further restriction changes the exercise.

Solution: Assessed PHP 2.4m; basic PHP 48,000; SEF PHP 24,000; total PHP 72,000.

Reasoning: Assessment level converts valuation into assessed value. Tax rates then use that assessed base; local measures and current applicability need verification for a live bill.

18 Plant and assessment worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Asset register and premise

List M-01 to M-04, leased L-01, building B-01 and site S-01 with ownership and inclusion status. Explain in-place versus removed analysis and why exclusion from the owned total does not prove tax exemption.

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_____

2 Original installed-cost build-up

Rebuild M-01 from equipment 4m, freight 0.2m, insurance 0.05m, nonrecoverable import allowance 0.3m, handling 0.05m, installation 0.4m and commissioning 0.2m. Compute delivered and installed totals and identify an inclusion check.

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_____

3 M-01 loss sequence

Use cost 5.2m; curable 0.2m; residual physical base 5m at effective age 4 and remaining life 16; distinct functional 0.3m; external 10% of post-functional subtotal. Show all bases and the final component indication.

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_____

4 Aggregate the plant groups

Use M-01 result plus M-02 cost 1.4m, age 3, remaining 7; M-03 cost 1.8m, age 2, remaining 10; M-04 cost 1m, age 5, remaining 15. The latter three have only supplied physical loss and zero residual. Find total cost new and total component indication.

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_____

_____

Premise and assessment worksheet continued

5 Loose price and cost responsibilities

Gross removed price 2.9m; seller removal 0.15m, preparation 0.05m, selling 0.1m; buyer transport 0.12m, installation 0.25m, commissioning 0.08m. Calculate the two outputs and explain why neither automatically equals installed market value.

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_____

_____

6 Remaining-life and annual allowance

Separate statutory exercises: base 5m and remaining/total life 12/20; then base 5m, 8 years and 5% simple annual allowance; then 18 years,5% and useful/operating condition. Explain why these are not cumulative deductions.

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_____

7 Assessment and tax chain

Using stipulated valuation 3m, nonexempt industrial classification and city ordinance AL 80%, basic 2%, SEF 1%, compute assessed value and each levy. Identify which inputs are local stipulations and which stated Code limits require attention.

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8 Infrastructure and reporting

Identify two possible overlaps between pumping infrastructure, dedicated civil works and the building model. Explain how a 3-year occupancy right can affect a machine with 10-year remaining service capability. Distinguish professional indication, assessed value and tax.

_____

_____

_____

19 Review and examination checks

Distinction	Examination check
Asset and business	Plant boundary excludes unrelated enterprise benefits
Presence and ownership	Lease and other rights verified
In-place and removed	Utility and cost responsibilities differ
Bare and turnkey cost	Inclusions reconciled before additions
Curable and residual	Affected slice excluded from age-life base
Age and remaining life	Total denominator consistently defined
Physical and obsolescence	Distinct causes and no overlap
Component and system	Complementary utility and boundaries reviewed
Gross and net proceeds	Requested realization convention identified
Professional and statutory	Different purposes and rules
Maximum and actual rate	Ceiling is not an automatic adopted rate
Operating floor	Section 225 condition expressly checked
Valuation and assessment	Assessment level applied to the right amount
Assessment and tax	Each levy uses its specified assessed base
Code and reform	RA 12001 and operative guidance considered

Explain the asset-to-output chain

Define the rights and premise, build the register, support costs or prices, identify distinct losses and system effects, and label the result. For a statutory exercise, separately show valuation, assessment and each levy with its supplied classification and ordinance inputs.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. Which is the first control in a plant valuation assignment?

A. Apply the tax assessment level immediately

B. Define asset boundaries, rights, date and premise

C. Capitalise every enterprise receipt

D. Use invoice cost as final value

2. The assignment concerns owned plant, and a forklift is leased from a third party. The best treatment is to:

A. Treat every leased item as tax exempt

B. Include full forklift ownership merely because it is on site

C. Identify the lease and exclude it from the owned total unless a relevant right is separately valued

D. Delete it from the register entirely

3. An installed in-use figure and a loose removed-price observation principally require review of:

A. A fixed forced-sale percentage

B. Only their number of decimals

C. Only accounting purchase dates

D. Premise, utility, condition and cost responsibilities

4. M-01 equipment 4m, freight 0.2m, insurance 0.05m, import allowance 0.3m and handling 0.05m produce delivered cost:

A. PHP 5.2m

B. PHP 4.6m

C. PHP 4.55m

D. PHP 4m

5. Delivered cost 4.6m plus installation 0.4m and commissioning 0.2m gives installed cost new:

A. PHP 5m

B. PHP 4.8m

C. PHP 5.2m

D. PHP 5.4m

6. A turnkey quotation already includes commissioning. Adding its full cost again would:

A. Double count the same inclusion

B. Automatically improve valuation accuracy

C. Convert replacement to reproduction

D. Establish an external loss

7. Cost 5.2m includes a curable slice 0.2m excluded from a 5m residual base. At 20% physical loss on the residual base, total physical deduction is:

A. PHP 1.24m

B. PHP 1.2m

C. PHP 1m

D. PHP 0.2m

8. M-01 post-physical 4m less functional 0.3m, then external 10% of the result, leaves:

A. PHP 3.3m

B. PHP 3.7m

C. PHP 3.33m

D. PHP 3.6m

9. M-02 cost 1.4m, effective age 3 and remaining life 7, physical-only zero-residual model, leaves:

A. PHP 980,000

B. PHP 420,000

C. PHP 1,000,000

D. PHP 600,000

10. Total useful hours 40,000 and consumed hours 10,000 give remaining physical fraction:

A. 75%

B. 25%

C. 33.3333%

D. 10%

11. Component indications 3.33m, 0.98m, 1.5m and 0.75m total:

A. PHP 6.26m

B. PHP 9.4m

C. PHP 6.56m

D. PHP 7.56m

12. Gross removed price 2.9m less seller removal 0.15m, preparation 0.05m and selling 0.1m gives requested net proceeds:

A. PHP 3.2m

B. PHP 2.6m

C. PHP 3.35m

D. PHP 2.9m

13. A 10-year remaining technical service capability under a 3-year site occupancy right calls for:

A. Ignoring the occupancy right

B. Automatic 10-year benefits at the same site

C. Automatic tax exemption

D. Review of renewal, relocation and complementary-right constraints

14. In a stipulated section 224 exercise, replacement cost 5m and remaining/total economic life 12/20 give:

A. PHP 7.5m

B. PHP 3m

C. PHP 2m

D. PHP 5m

15. The section 225 annual assessment depreciation rate of 5% is stated as:

A. An assessment level for industrial machinery

B. A universal compound professional valuation rate

C. A ceiling rather than a mandatory rate in every case

D. The basic RPT rate for every city

16. Section 225 exercise: cost base 5m, 18 years,5% simple annual allowance, machinery useful and operating. Remaining value after the conditional floor is:

A. Zero

B. PHP 0.5m

C. PHP 4m

D. PHP 1m

17. Stipulated valuation 3m and adopted machinery assessment level 80% produce assessed value:

A. PHP 2.4m

B. PHP 600,000

C. PHP 3m

D. PHP 3.75m

18. Stipulated assessed value 2.4m and basic RPT rate 2% give basic levy:

A. PHP 72,000

B. PHP 60,000

C. PHP 24,000

D. PHP 48,000

19. With assessed value 2.4m, stipulated basic 2% and SEF 1%, combined annual levies are:

A. PHP 72,000

B. PHP 48,000

C. PHP 90,000

D. PHP 24,000

20. Which is the best distinction between professional plant value and assessed value?

A. An asset register alone fixes the tax bill

B. They must always be numerically identical

C. Professional value is always cost less 5% yearly

D. They answer different defined questions; assessed value applies the prescribed assessment level to the relevant valuation amount

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	C
2	C	12	B
3	D	13	D
4	B	14	B
5	C	15	C
6	A	16	D
7	B	17	A
8	C	18	D
9	A	19	A
10	A	20	D

1. B The subject interest and asset scope must be established before selecting the model.

2. C Presence is not ownership. Keep the item and its interest status visible; professional scope and tax status are separate.

3. D The observations can contain different services, supporting assets and location assumptions.

4. B 4+0.2+0.05+0.3+0.05=PHP 4.6m under separate supplied inclusions.

5. C 4.6+0.4+0.2=PHP 5.2m. Check quotation inclusions before additions.

6. A An inclusion schedule prevents repeating components already in a supplier price.

7. B 0.2m+5m×20%=PHP 1.2m. Applying the fraction to the whole amount then adding cure loss would overlap.

8. C Post-functional 3.7m; external 0.37m; remaining PHP 3.33m.

9. A Total life 10; remaining fraction 7/10; 1.4m×0.7=PHP 980,000.

10. A 30,000/40,000=75% under the defined utilization model.

Answer explanations continued

11. C The compatible nonoverlapping teaching component sum is PHP 6.56m; actual group utility still needs review.

12. B 2.9−0.15−0.05−0.1=PHP 2.6m. This is the expressly requested net-realization convention.

13. D The supporting right can constrain realized utility even when the machine remains technically capable.

14. B 12/20×5m=PHP 3m under the specified statutory illustration.

15. C The provision says the annual allowance does not exceed 5%; distinguish a maximum from an actual adopted allowance.

16. D Uncapped remainder 10%=0.5m; operating floor 20%=PHP 1m.

17. A Valuation amount×assessment level=3m×0.8=PHP 2.4m.

18. D 2.4m×2%=PHP 48,000. The valuation amount is not the levy base.

19. A Basic 48,000 plus SEF 24,000=PHP 72,000 under the stated ordinance and applicability assumptions.

20. D Keep professional valuation, statutory inputs, assessed value and each levy separately labelled and supported.

Worksheet model responses

Response 1

M-01 ice assembly, M-02 generator, M-03 solar and M-04 network are the included owned groups. L-01 is a separately identified lease interest; B-01 and S-01 are outside the plant total. In-place and removed settings carry different utility and costs. Ownership-scope exclusion is not a statutory exemption determination.

Response 2

Delivered=4+0.2+0.05+0.3+0.05=PHP 4.6m. Installed=4.6+0.4+0.2=PHP 5.2m. Check whether the supplier quotation already includes transport, site supports or commissioning; the import allowance is fictional, not a tax rate.

Response 3

Residual physical fraction 4/20=20%; loss 1m plus curable 0.2m=1.2m; post-physical 4m; post-functional 3.7m; external 0.37m; final PHP 3.33m. Exclude the curable slice from residual physical depreciation and keep each other loss distinct.

Response 4

M-02 remaining 1.4m×7/10=PHP 0.98m. M-03 remaining 1.8m×10/12=PHP 1.5m. M-04 remaining 1m×15/20=PHP 0.75m. With M-01 PHP 3.33m, total PHP 6.56m. Cost new=5.2+1.4+1.8+1=PHP 9.4m. Check group utility and nonoverlapping boundaries before any actual summation.

Response 5

Seller net=2.9−0.15−0.05−0.1=PHP 2.6m. Buyer outlay=2.9+0.12+0.25+0.08=PHP 3.35m. Cost responsibility and premise differ. A supported installed value also requires comparable condition, rights and utility; net proceeds are not automatically market value.

Response 6

Life-ratio illustration 12/20×5m=PHP 3m. Annual allowance illustration 8×5%=40% loss, leaving PHP 3m. Eighteen-year uncapped remainder PHP 0.5m; operating 20% floor PHP 1m. Read the statutory framework coherently; do not deduct the same life consumption twice.

Response 7

Assessed=3m×80%=PHP 2.4m. Basic=2.4m×2%=PHP 48,000. SEF=2.4m×1%=PHP 24,000. Total PHP 72,000. Ordinance inputs are stipulated; machinery assessment ceilings, RPT jurisdictional limits, exemption and current transition provisions require attention in actual work.

Response 8

Dedicated pipe trenches and machine foundations or electrical connections can overlap if included in both plant and building/site schedules. Assign each once. A shorter occupancy right may create relocation, renewal or lost-utility questions. A professional asset indication differs from a prescribed assessed amount and a levy on that amount.

22 Essential terms and calculation review

PEI Plant equipment and infrastructure within a defined asset scope.

In-place premise Specified asset setting at the existing location.

Removed premise Asset or group outside its installed setting.

Installed cost new Compatible equipment and required readying costs counted once.

Commissioning Defined testing and readiness scope within the cost schedule.

Effective age Condition-related age under the chosen model.

Remaining life Relevant future utility period under stated assumptions.

Functional loss Utility inefficiency relative to a suitable alternative.

External loss Effect of relevant influences beyond the asset.

Assessed value Relevant valuation amount multiplied by assessment level.

SEF Special Education Fund levy under applicable authority and assumptions.

Teaching relationship	Defined formula
Installed cost	Equipment + separate delivery + installation + commissioning
Physical-only remaining fraction	Remaining life / total life, with stated residual convention
Curable breakdown	Curable loss + residual-base physical loss
M-01 external deduction	Post-functional subtotal × supplied 10%
Net seller realization	Gross removed receipt − specified seller costs
Buyer readying outlay	Purchase + buyer transport + installation + testing
Section 224 illustration	Replacement or reproduction cost × remaining / estimated life
Section 225 specified maximum	Simple annual 5% allowance; conditional 20% floor
Assessment	Stipulated valuation amount × adopted assessment level
Selected levies	Assessed value × each applicable stipulated levy rate

Statutory rows are independent restricted exercises, not extra deductions from the professional plant model. Ceilings, operating conditions, current guidance and local measures must be identified for actual assessment.

23 Sources and preparation status

Research reviewed on 12 October 2026. The narrative, Silangan asset register, cost and loss schedules, removal exercises, independent statutory calculations, cases and questions are original educational work. They are not actual or recalled PRC examination questions.

Selected IVS 300 text was checked in the IVSC-authored 2025 redline. Enacted RA 7160 and RA 12001 provisions were checked in full relevant sections. The chapter does not constitute a complete PVS chapter audit, current implementing-issuance review or examination of a particular LGU ordinance.

For an actual valuation or tax determination, verify the complete applicable national standards, current implementing guidance, asset facts and operative local measures. Machinery valuation is not inferred from a land SMV, an accounting balance or a universal percentage table.

1 IVSC plant equipment and infrastructure

IVSC-authored redline effective 31 January 2025, hosted by ICAEW. Selected current IVS 300 text on printed pages 135–136 and 140–141 addresses asset scope and factors, premises, removed costs and gross/net realization. Deleted wording was visually distinguished.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 RA 7160 Local Government Code

Relevant text checked: sections 218 (assessment ceilings), 224 (machinery valuation), 225 (annual allowance and conditional floor), 233 (basic levy ceilings) and 235 (SEF). Study with later reform and operative local measures.

https://www.lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

3 RA 12001 valuation and assessment reform

Relevant text checked: section 4 definitions including machinery and SMV, sections 13–14 valuation framework, section 29 transition provisions, section 35 suppletory laws and section 38 amendments and repeals. No LGU-specific implementation conclusion is drawn.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

REALEX

Lesson 30

Specialized Property and Interest Valuation

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Select a method that fits the property's utility and the interest being valued. Separate real estate from business, intangible and movable-asset contributions, and identify the rights retained in easement and partial-acquisition cases.

This lesson develops original hospitality, school, agricultural, finite leasehold, easement and public-acquisition exercises. It includes ten worked cases, an eight-task worksheet and twenty original questions with explained answers.

All properties, financial inputs and market rates in the exercises are fictional teaching assumptions. Statutory exercises define a restricted route and inputs; they do not determine an actual owner's entitlement or certify compliance with all national valuation requirements.

Your learning goals

- Define specialized property and distinguish it from special value.
- Select a method through reliable evidence and equivalent utility.
- Map real estate business intangible and movable contributions.
- Compute lodge room revenue occupancy ADR and RevPAR.
- Separate a combined operating stream from property-only NOI.
- Evaluate school service capacity and alternative-use scenarios.
- Distinguish agricultural property rent from crop enterprise surplus.
- Discount a defined finite leasehold benefit.
- Analyze retained rights and effects of an access easement.
- Reconcile partial acquisition strip and remainder effects.
- Read RA 10752 with its RA 12289 amendments.
- Distinguish a professional value effect offer deposit and final award.

Study plan: Allow five hours in two sessions. Read sections 1–8 for property utility and hospitality/school models, then sections 9–16 for agriculture, limited rights and acquisition. Attempt the cases, worksheet and test before checking the responses. Prerequisite themes are property interests and valuation reconciliation.

1 Define the specialized property and the interest

A specialized building serves a particular activity through its design, location, equipment or permissions. A school campus, resort, hospital or irrigation-supported farm may have few directly comparable sales. That scarcity changes the investigation and method choice; it does not establish that construction cost equals market value. Begin with the buyer population, the rights transferred and the utility that those rights provide.

Special purpose describes the asset's adaptation. Special value describes an advantage to a particular party under an appropriate value basis. A specialized asset can still have market value supported by participants. Conversely, a conventional property can have an unusual advantage to an adjoining owner. Do not substitute one concept for the other simply because the building is uncommon.

The subject may be ownership of land and improvements, a landlord's interest subject to a lease, a tenant's remaining contractual rights, an operating business or a limited right of passage. Identify the valuation date, currency, intended use and basis. A request to value "the resort" is incomplete until the asset and interest boundaries are agreed.

This chapter uses five original fictional properties: Amihan Bay Lodge, Malaya Learning Campus, Luntian Agricultural Estate, Dalisay Access Corridor and the Sampaguita partial-acquisition parcel. The date for the professional exercises is 30 September 2026. All prices, cash flows, percentages and legal case assumptions are supplied teaching facts. None establishes an actual local market rate or an owner's entitlement.

Original case	Interest or package	Main inquiry
Amihan Bay Lodge	Real estate and defined operating package	Income attribution
Malaya Learning Campus	Compatible land and improvements	Equivalent service and use
Luntian Agricultural Estate	Defined land and building package	Productivity classes and rent
Dalisay Access Corridor	Leasehold and limited access rights	Term and retained rights
Sampaguita parcel	Acquired strip and retained remainder	Before-and-after effects

2 Choose a method through evidence and utility

Ask first whether transactions can be normalized to the same interest, permitted use, condition and package. A hotel sale may include furniture, working capital and a trading operation. A campus sale may be redevelopment land with buildings due for demolition. A farm price may depend on irrigation rights or a tenant's position. A price per room or hectare is a comparison device, not permission to ignore these differences.

Next ask whether a supportable income stream belongs to the real property interest. Rent paid by an independent operator may offer a cleaner starting point than the owner's trading profit, although lease conditions and sustainability still need analysis. If the only available income is a combined enterprise stream, its asset contributions require further investigation.

The cost approach can be useful where relevant sales and income evidence are weak. Model the cost of a modern asset providing equivalent service, deduct supported physical deterioration and obsolescence, and add compatible land value. A facility can be structurally sound yet provide excess accommodation or uneconomic utility. Cost evidence needs a demand and use analysis.

The checked IVS 400 concepts support rights-based scope, consistent comparisons and the distinction between property income and business-related streams. [1] The case decisions below are original applications. Method selection rests on the quality of the evidence and the question asked rather than a universal rule that all specialized property must use one approach.

3 Map the asset contributions before using income

Amihan Bay Lodge has 24 guest rooms, a restaurant and recreation areas. Its operating accounts combine the use of land and buildings, owned furniture and equipment, inventories, working capital, a reservation system and an established trade name. A mortgage instruction limited to real property requires a narrower conclusion than the price of the complete operating undertaking.

Prepare an asset and rights map. Record whether the furniture is owned or leased, whether a brand or management agreement transfers, and whether the land is owned by the operating company or by a separate lessor. Identify public access rights, utilities and regulatory permissions that support the use. Accounting labels alone do not settle legal ownership or market contribution.

Distinguish earnings deductions from capital allocations. An annual reserve for replacement of furniture is a cash-flow adjustment. The current value of the furniture is a capital amount. They cannot be interchanged. Similarly, a management fee may compensate services and operational skill; it does not automatically remove every brand benefit or all goodwill from the enterprise stream.

No default percentage separates real estate from the rest of a hotel. Asset allocations require support for the same date, basis, premise and boundaries. If components have dependencies, their standalone values may differ from allocations within the operating package. A numerical remainder becomes a property indication only when the composition and allocation have been established.

4 Build the original lodge operating schedule

The Amihan teaching model supplies 24 rooms, 365 available days, 60% stabilized occupancy and PHP 3,000 average daily rate. Available room nights are 8,760; occupied nights are 5,256. Room revenue is PHP 15,768,000. Separately stipulated food and other revenue is PHP 4,232,000, giving total operating revenue of PHP 20 million.

The schedule specifies PHP 12 million operating expenses before the separately listed management fee and replacement reserve. A fee of 3% of total revenue is PHP 600,000. The specified annual reserve is PHP 400,000. The resulting PHP 7 million is an adjusted combined operating cash-flow subtotal before property rent, financing and income tax. It is not yet real-property NOI.

At an independently stipulated 14% capitalization rate compatible with that combined stream, the simplified package indication is PHP 50 million. This restricted capitalization exercise does not establish a rate appropriate for a real hotel. A finite lease, uneven refurbishment program or changing demand may require a DCF rather than a perpetual model.

Amihan operating stage	PHP
Room revenue	15,768,000
Other supplied receipts	4,232,000
Total revenue	20,000,000
Operating expenses excluding fee/reserve	−12,000,000
Separate management fee at 3%	−600,000
Separate replacement reserve	−400,000
Combined operating subtotal	7,000,000
Restricted package at 14%	50,000,000

Check the occupancy denominator. Sixty percent is applied to available room nights, not to total revenue after other receipts have been added. ADR is applied to occupied nights. RevPAR for this model is PHP 1,800, equal to room revenue divided by available nights, or ADR multiplied by occupancy. Use operating measures as diagnostics rather than multiplying each by a different capital amount.

5 Separate lodge property from the operating package

For a restricted allocation exercise, the PHP 50 million package is expressly defined to include the owned real estate, furniture and equipment, working capital and intangible contributions. It excludes debt and unrelated corporate assets. Independently supported allocations on the same package basis are supplied as PHP 4 million furniture and equipment, PHP 1 million working capital and PHP 5 million intangible contribution. The compatible property remainder is PHP 40 million.

The subtraction is justified by those supplied boundaries and compatible allocations. It is not a general instruction to subtract book values from any hotel price. If the PHP 50 million were equity value after debt, the arithmetic would answer a different question. If brand contribution had already been removed from the package, subtracting it again would understate the remainder.

An independent property-only lease scenario supplies annual rent of PHP 4 million and landlord expenses of PHP 400,000. Property NOI is PHP 3.6 million. A compatible supplied property capitalization rate of 9% gives PHP 40 million. The agreement with the allocation exercise is intentionally constructed for learning; actual evidence can differ and requires reconciliation rather than forced equality.

Distinct lodge model	PHP million
Defined package indication	50.0
Furniture equipment allocation	−4.0
Working capital allocation	−1.0
Intangible allocation	−5.0
Compatible property remainder	40.0
Independent property NOI	3.6
Property-only capitalization at 9%	40.0

A hotel trading stream can include non-property benefits. The selected IVS discussion identifies a wider standards interface when business cash flows and intangible assets are included. [1] This lesson teaches the boundary; it does not provide a full business valuation or an independently estimated goodwill opinion.

6 Investigate hospitality demand and operating normalization

An operating history should distinguish sustainable demand from events, owner bookings, temporary closures and unusual discounts. Review room mix, seasonality, cancellations, distribution commissions and costs that the seller has deferred. An owner working without salary may make operating cash flow look stronger than a market participant can achieve.

Normalize inputs through evidence rather than automatically copying a recent profitable year. For the teaching lodge, a separate occupancy scenario reduces occupancy to 50% while holding ADR at PHP 3,000. Occupied nights become 4,380 and room revenue becomes PHP 13.14 million, a decline of PHP 2.628 million from the main model. Other receipts and variable expenses must be reconsidered before calculating the impact on cash flow.

At unchanged 60% occupancy and ADR of PHP 2,700, room revenue is PHP 14.1912 million. If a student assumes expenses also decline by exactly 10%, the assumption needs support: security, administration and portions of maintenance may not vary in the same way as room sales. Revenue sensitivity alone does not establish value sensitivity.

Inspect ownership of waterfront access, the transferability of permits, remaining lease periods and essential utilities. A beautiful building on insecure access rights may have less market utility than its design suggests. A short site lease can constrain a long-lived building. Match the projected income period with the enforceable property interest and the assumptions that participants would support.

7 Value the school through equivalent service capacity

Malaya Learning Campus occupies a separately valued PHP 12 million site. Its existing classroom block contains 3,000 square metres, but the supplied current service requirement can be met by a modern 2,400-square-metre alternative. The modern replacement benchmark is PHP 25,000 per square metre including the defined building scope. Cost new for equivalent utility is therefore PHP 60 million.

A separately supported 20% physical deterioration allowance applies to that replacement benchmark, leaving PHP 48 million. A distinct external utility loss of 10% applies to the remaining improvement amount, deducting

PHP 4.8 million. The improvement indication is PHP 43.2 million and the compatible land-plus-improvement indication is PHP 55.2 million.

The modern alternative already removes the specified excess area. Charging an additional 600-square-metre functional deduction would repeat the same adjustment. A different unresolved deficiency, such as inefficient vertical circulation, could warrant separate analysis, but its cause and remaining effect would need to be shown.

Malaya continuing-use stage	PHP million
Equivalent replacement cost	60.0
Physical deduction 20%	−12.0
Post-physical subtotal	48.0
Distinct external loss 10%	−4.8
Improvement indication	43.2
Compatible land	12.0
Defined property indication	55.2

The case assumes continuing educational use is legally permissible and financially supportable, and the land value is compatible with that use. It does not establish that the cost result is recoverable merely because there are few campus sales. Examine competing facilities, enrolment demand and feasible alternatives before accepting a market conclusion.

8 Test alternative use and avoid adding unlike scenarios

A second Malaya scenario supplies a compatible vacant redevelopment land indication of PHP 18 million and a required demolition and clearance cost of PHP 2 million. The net redevelopment indication is PHP 16 million before any other costs, under the defined scenario. It is an alternative to the PHP 55.2 million continuing-use model, not another asset to add to it.

Where conversion is feasible, assess planning status, structural suitability, access, parking and the cost and timing of adaptation. A classroom block is not a standard apartment block merely because both have windows and corridors. A cost estimate for conversion should be supported by technical scope, and a rental forecast should reflect the converted product.

Land analysis and improvement analysis must describe a compatible use. Combining the redevelopment land price with the full continuing-use campus improvement contribution may count incompatible advantages. State whether existing buildings remain useful under the land’s assumed use or create clearance costs.

A cost result substantially above observable market alternatives deserves investigation. It may reflect unusually high historic construction costs, excess capacity, weak demand or incomplete obsolescence. Reconciliation means explaining what the evidence supports rather than applying equal weights to three outputs simply because three approaches appear in the workbook.

9 Examine the agricultural estate as a rights and productivity system

Luntian Agricultural Estate has four hectares of irrigated cropland and two hectares of rainfed land. Access, water reliability, soil quality, flood exposure and drainage affect agricultural utility. Inspect the availability and reliability of irrigation rather than assuming every hectare has equal productive capacity. A visible canal does not establish an unrestricted right to draw water.

The assignment must identify tenure, occupancy, agrarian restrictions, permitted use and ownership of improvements or crops. A title, tax declaration, possession claim and transferable ownership interest are different evidence categories. RA 6657, as amended, is relevant to agrarian rights and restrictions; this chapter does not infer conversion eligibility or sale validity from a farm's roadside location. [4]

The comparable exercise supplies already normalized prices of PHP 1.2 million per hectare for irrigated land and PHP 800,000 per hectare for rainfed land, each excluding the separately valued farm building. Land indication is PHP 4.8 million plus PHP 1.6 million, or PHP 6.4 million. A compatible building contribution of PHP 600,000 gives PHP 7 million for the defined property package.

Do not add a separate irrigation asset value if the supplied irrigated land prices already reflect its contribution. Identify whether a crop is sold with the property, retained by the grower or leased to an operator. The transferable package and the selected income stream must answer the same ownership question.

Luntian component	Supplied benchmark	PHP million
Irrigated land	4 ha × 1.2m/ha	4.8
Rainfed land	2 ha × 0.8m/ha	1.6
Land subtotal	Two productivity classes	6.4
Separate building	Excluded from land rates/rent	0.6
Defined package	Compatible components	7.0

10 Separate farm rent from agricultural enterprise receipts

Luntian's property-only income example supplies annual rents of PHP 240,000 for irrigated land and PHP 100,000 for rainfed land. Landlord expenses are PHP 20,000, giving PHP 320,000 land NOI. A stipulated compatible 5% capitalization rate gives PHP 6.4 million land value. The farm building is expressly excluded from those rents and contributes PHP 600,000 separately, giving PHP 7 million.

A separate agricultural enterprise schedule supplies harvest receipts of PHP 1.8 million and operating costs of PHP 1.3 million, leaving PHP 500,000 before land rent and other specified capital charges. That subtotal includes the work and risks of growing and marketing crops. It cannot replace the PHP 320,000 property NOI merely because the enterprise operates on the land.

Examine yield history, input prices, labour, machinery, working capital and crop cycles when interpreting enterprise accounts. A single abundant harvest can exaggerate stabilized receipts. A lease rent may be fixed, shared with production or dependent on commodity prices; each arrangement changes the risk and allocation of income.

A productive orchard can be valued through a defined property cash-flow model that incorporates its biological and replacement cycle. If the model already captures orchard income and replanting needs, adding

an independently capitalized value of the same trees can overlap. Treat environmental and agronomic opinions as specialist evidence where needed and state the scope of reliance.

11 Analyze limited leasehold and lessor interests

A tenant's economic advantage depends on enforceable terms, assignability, expiry and obligations. Below-market rent can create a benefit, but the tenant may be unable to transfer it or may owe restoration costs. A perpetual capitalization formula is inappropriate where the advantage ends after a known short term and no renewal right is included.

The Dalisay lease example supplies market rent of PHP 1.2 million per year, contract rent of PHP 900,000 and three remaining years. Annual savings are PHP 300,000 at each year-end. The advantage is transferable in this teaching case; there are no other costs or renewal benefits. Discounting at a supplied 10% gives an annuity factor of 2.48685199 and a benefit of PHP 746,055.60.

This is a restricted leasehold-benefit model, not the value of ownership of the land. A negative difference between market and contract rent could instead indicate a burden under the defined assumptions. A leasehold with a premium, incentive, rent review or unusual covenant requires more detailed modelling.

The landlord's interest involves contract income and its reversion on the relevant terms. Do not automatically add a tenant's separate benefit to a landlord's separately prepared value to reproduce unencumbered ownership: different assumptions, rates and transaction effects may make simple additivity inappropriate. Explain the relationship of the interests and the consistency of the models.

12 Measure easement effects through retained rights

Dalisay Access Corridor is a 400-square-metre portion of a property over which an access easement is proposed. The owner retains ownership and specified compatible uses. Define who may pass, vehicle limits, maintenance duties, hours, term and restrictions on building or fencing. A limited access right differs from acquiring full ownership of the strip.

For an original property-impact model, the whole property before the easement is PHP 8 million and the same ownership interest after the restriction is PHP 7.6 million. Both values use the same date and consistent market conditions. The indicated diminution is PHP 400,000. This is a professional effect measurement under supplied assumptions, not an automatic statutory payment award.

The strip's unencumbered ownership benchmark of 400 square metres at PHP 2,000 is PHP 800,000. It is not automatically the value of the access right. The remaining uses and effects elsewhere on the parcel matter. An owner might retain meaningful use of the strip while vehicle circulation imposes additional effects on adjoining accommodation.

A separate temporary-workspace example stipulates a negotiated-use pricing convention of PHP 5,000 monthly for six months, paid without discounting, plus PHP 40,000 restoration. That agreed teaching allowance totals PHP 70,000. It is not combined with the permanent easement model because the cases define different rights and conditions.

13 Measure partial acquisition and remainder effects

The Sampaguita parcel has 1,000 square metres and a before-acquisition value of PHP 5 million. A 100-square-metre strip is acquired. The original land benchmark is PHP 5,000 per square metre, indicating PHP 500,000 for the strip under the case's uniform-value assumption. The remaining 900-square-metre interest is worth PHP 4.05 million after the defined acquisition effects.

Before-and-after diminution is PHP 950,000: PHP 5 million less PHP 4.05 million. The unaffected arithmetic remainder benchmark would be PHP 4.5 million. Its decline to PHP 4.05 million identifies PHP 450,000 in additional remainder effects. PHP 500,000 strip value plus PHP 450,000 remainder effect reconciles to PHP 950,000; adding the strip value again to the before-and-after difference would duplicate it.

The case expressly excludes project-created benefits, crops, structures and separate business losses. Actual legal compensation requires the governing law, valuation date, facts and adjudication. A professional before-and-after model does not by itself establish that every measured economic effect is compensable under a particular statutory route.

Sampaguita model	**PHP**
Before whole interest	5,000,000
After remainder interest	4,050,000
Total defined diminution	950,000
Acquired strip benchmark	500,000
Additional remainder effect	450,000

An alternative cure scenario supplies a PHP 200,000 access redesign that would leave a PHP 100,000 residual remainder loss. The combined effect is PHP 300,000, compared with the uncured PHP 450,000. If technically feasible, legally permitted and supported by participant behaviour, the cure may inform the remainder analysis. Do not add the full uncured loss to the cure cost.

14 Read the public acquisition framework by date and route

RA 10752 is the original Right-of-Way Act. RA 12289, approved in 2025, amended it. For post-amendment study, use the amended provisions and examine the written-agreement exception in the transition clause. [2,3]

Amended negotiated-sale provisions connect offers to the RA 12001 valuation system and approved SMV, with an interim rule when an approved SMV is absent. They address replacement cost with depreciation considered and crop/tree market value. The original 2016 wording must not be presented as the complete current rule. [2,3]

A separate statutory deposit exercise assumes an applicable amended Section 7 case with approved-SMV inputs: land PHP 2 million, improvements PHP 800,000 after specified depreciation and crops PHP 100,000. Applying the stipulated statutory categories gives PHP 300,000 + PHP 800,000 + PHP 15,000 = PHP 1.115 million. This deposit is not final judicial just compensation. [3]

Keep offer, deposit and court-determined compensation separately labelled. A general market opinion and a prescribed acquisition calculation can serve different purposes. Read current implementing measures and the particular project’s records before giving an actual entitlement or procedural conclusion.

15 Reconcile the evidence and state the limitations

A specialized-property report should explain the asset and interest, legal and physical use constraints, package boundaries, market evidence and method choice. Show how an income stream was normalized and which assets it rewards. Where the cost approach is used, disclose equivalent utility and the cause and base of each loss. A single opaque “special property discount” cannot explain the model.

For hospitality, compare operating potential with property-only rental evidence and compatible transaction packages. For a school, consider service demand and alternative-use feasibility alongside replacement cost. For agriculture, reconcile comparable productivity classes and property rent without turning enterprise profits into land rent. For easements and partial acquisition, define the rights retained and the effects on the remainder.

A limited inspection or unverified transfer restriction can be material even when every arithmetic subtotal is correct. Describe the missing evidence and its potential influence. Use specialist work for issues outside the valuer's competence, such as agronomic productivity, structural conversion, contamination or detailed legal entitlement. Do not make an unconditional ownership conclusion from incomplete documents.

Sensitivity analysis should vary a defined input while maintaining a coherent model. A hotel occupancy reduction may alter variable expenses; an agricultural rent change may reflect a different risk profile; an easement design change can affect both the corridor and remainder. Explain what is held constant and why the revised scenario is meaningful.

16 Carry the boundary discipline into assessment work

The teaching models produce PHP 40 million for Amihan's defined property interest, PHP 55.2 million for Malaya's continuing-use scenario and PHP 7 million for Luntian's specified land-and-building package. These are independent properties, not items in one portfolio. The leasehold, easement, temporary-use and acquisition examples define still other outputs and should not be added to those amounts.

A valuation conclusion needs an audit trail from rights and evidence through the model to the stated output. Report cash-flow subtotals as subtotals, allocated components as allocations and deposits as deposits. Resist the temptation to label every monetary answer "market value" simply because it is expressed in pesos.

The exercises develop selected international concepts and a dated Philippine acquisition-law interface. They do not certify an assignment against every PVS requirement or determine an actual public-acquisition award. The sources identify the checked provisions and the exercise assumptions identify what remains stipulated.

Lesson 31 moves from individual specialized assignments to mass appraisal and assessment-model quality. The same discipline applies at scale: define the population and property interests, maintain comparable inputs and evaluate evidence rather than allowing a convenient model to determine the meaning of the result.

17 Ten worked specialized-property cases

Attempt each question before reading the solution. Asset rights, cost inclusions and calculation conventions are stipulated where stated. Preserve each unit, calculation base and model convention.

Case 1 Build lodge revenue

Question: Amihan has 24 rooms, 365 days, 60% occupancy and PHP 3,000 ADR. Other revenue is PHP 4,232,000. Compute room revenue and total revenue.

Solution: Available nights = 24 × 365 = 8,760. Occupied nights = 5,256. Room revenue = PHP 15,768,000; total = PHP 20 million.

Reasoning: ADR applies to occupied room nights. Other revenue is separately supplied and is not multiplied by occupancy again.

Case 2 Identify the operating subtotal

Question: From total revenue PHP 20 million, deduct PHP 12 million operating expenses, a separately specified 3% management fee and PHP 400,000 reserve. Capitalize the resulting combined stream at 14%.

Solution: Fee = PHP 600,000; cash-flow subtotal = PHP 7 million. Restricted package indication = 7m/14% = PHP 50 million.

Reasoning: The expenses exclude the separately stated fee and reserve. The subtotal remains a combined operating stream before property rent, financing and income tax.

Case 3 Allocate the compatible package

Question: The PHP 50 million defined package includes real estate, PHP 4 million furniture/equipment, PHP 1 million working capital and PHP 5 million intangibles. Compatible allocations exclude debt and overlap. Find property remainder.

Solution: 50 − 4 − 1 − 5 = PHP 40 million.

Reasoning: The case stipulates package composition and comparable allocation bases. Subtracting book values from an undefined company price would not justify the same conclusion.

Case 4 Cross-check property income

Question: An independent property-only lease has PHP 4 million rent and PHP 400,000 landlord expenses. Compatible property rate is 9%. Find NOI and indication.

Solution: NOI = PHP 3.6 million. Indication = 3.6m/9% = PHP 40 million.

Reasoning: Property rent is distinct from hotel trading receipts. The matching result is constructed for learning; actual reconciliation requires evidence.

Case 5 Value equivalent school capacity

Question: Equivalent capacity requires 2,400 sqm at PHP 25,000/sqm. Physical loss is 20%, then distinct external loss is 10% of the improvement subtotal. Land is PHP 12 million.

Solution: Cost new = PHP 60m; after physical loss = PHP 48m; external loss = PHP 4.8m; improvement = PHP 43.2m; total = PHP 55.2m.

Reasoning: The equivalent capacity already excludes the existing block's excess 600 sqm. An additional loss for that same excess would overlap.

Case 6 Reconcile the agricultural package

Question: Four irrigated hectares are PHP 1.2m/ha and two rainfed hectares PHP 0.8m/ha. Compatible building contribution is PHP 0.6m and excluded from land rates.

Solution: Land = 4 × 1.2 + 2 × 0.8 = PHP 6.4m. Package = PHP 7m.

Reasoning: Productivity classes are separately valued. No extra irrigation contribution is added because it is already reflected in the irrigated land benchmark.

Case 7 Discount a finite tenant advantage

Question: Transferable annual rent savings are PHP 300,000 at year-end for three years. Discount rate 10%; no renewal benefit or other obligation.

Solution: Factor = [1 − (1.10)^−3]/0.10 = 2.48685199. Benefit = PHP 746,055.60.

Reasoning: This is a finite leasehold-benefit model. A perpetual 300,000/10% calculation would include years outside the stipulated right.

Case 8 Measure easement diminution

Question: Whole ownership before a defined access easement is PHP 8m and after is PHP 7.6m. The strip's unencumbered ownership benchmark is PHP 0.8m.

Solution: Defined diminution = PHP 400,000. The PHP 800,000 benchmark does not automatically price the limited right.

Reasoning: The owner retains stated rights. The before-and-after inquiry captures the defined property effects; it is not an automatic compensation award.

Case 9 Reconcile partial acquisition

Question: Before value PHP 5m; 100 sqm strip at PHP 5,000/sqm; 900 sqm remainder after effects PHP 4.05m. No separate structures, crops or business losses.

Solution: Difference = PHP 950,000. Strip = PHP 500,000. Remainder effect = PHP 450,000. The latter two reconcile to the difference.

Reasoning: Adding strip value again to the full difference would count the strip twice. Legal compensability is a separate inquiry.

Case 10 Label a statutory acquisition deposit

Question: For an applicable amended Section 7 teaching case, approved-SMV inputs are land PHP 2m, improvements PHP 0.8m after specified depreciation, and crops PHP 0.1m. Apply 15%, 100% and 15% respectively.

Solution: Land portion PHP 300,000 + improvements PHP 800,000 + crop portion PHP 15,000 = PHP 1,115,000 deposit.

Reasoning: The input route and category rates are supplied from the amended framework. A preliminary deposit is not final court-determined just compensation.

18 Specialized-property worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Scope and asset map

Define a property-only lodge instruction. Identify land/building, owned furniture, leased assets, working capital and intangible contributions. Explain how the register prevents overlap.

_____

_____

_____

2 Lodge operations and property output

Compute Amihan revenue, the PHP 7m combined subtotal and PHP 50m package. Apply the compatible allocations of 4m, 1m and 5m. Independently calculate the property-only rent model.

_____

_____

_____

3 School service capacity

Use 2,400 sqm at PHP 25,000, physical loss 20%, distinct external loss 10% of the remaining improvement amount and land PHP 12m. Explain why the excess 600 sqm is not deducted again.

_____

_____

_____

4 Agricultural rights and income

Compute Luntian land and building using the class prices. Cross-check land with rent PHP 340,000 less landlord costs PHP 20,000, capitalized at 5%. Explain why enterprise surplus PHP 500,000 is a different stream.

_____

_____

_____

Specialized-property worksheet continued

5 Finite leasehold

Market rent 1.2m, contract rent 0.9m, three remaining years, 10% discount rate. Compute transferable year-end savings benefit. Identify two contractual facts that could change it.

_____

_____

_____

6 Limited easement and temporary use

Compute diminution from before 8m and after 7.6m. Compare the 0.8m strip ownership benchmark. Separately calculate six months at PHP 5,000 plus PHP 40,000 restoration under the stipulated pricing convention.

_____

_____

_____

7 Partial acquisition and cure

Reconcile before 5m, strip 0.5m and after remainder 4.05m. Compare uncured remainder loss with an alternative feasible cure costing 0.2m and residual loss 0.1m. Avoid double counting.

_____

_____

_____

8 Dated acquisition-law interface

Explain why original RA 10752 must be read with RA 12289. Using the supplied Section 7 exercise, show each deposit component. Distinguish professional diminution, offer, deposit and final just compensation.

_____

_____

_____

19 Review and examination checks

Distinction	Examination check
Specialized and special value	Asset adaptation differs from party-specific advantage
Method and label	Reliable evidence governs selection
Package and property	Transferred asset boundaries established
Trading income and rent	Contributions and costs separately identified
Reserve and capital allocation	Annual flow differs from an asset value
Capacity and floor area	Modern equivalent utility may remove excess
Current and alternative use	Compatible scenarios reconciled rather than added
Agricultural rent and surplus	Property income differs from enterprise return
Tenure and possession	Documents do not all establish the same right
Finite and perpetual benefit	Cash-flow years follow enforceable term
Easement and ownership	Retained uses affect limited-right value
Strip and remainder	No repeated inclusion in before-and-after difference
Uncured loss and cure	Cure cost and residual tested together
Original and amended law	Version and transition facts checked
Deposit and final award	Output label follows the procedural stage

Explain the path from rights to the output

Define the property interest, date and basis; map the included assets; investigate market utility; select a supportable model; reconcile compatible evidence; and label the result. For public acquisition, keep the statutory route and legal entitlement inquiry distinct from the professional economic model.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. What should control method selection for a specialized property?

A. Construction cost alone

B. The defined interest, utility and available reliable evidence

C. The owner’s preferred result

D. A mandatory equal weighting of three approaches

2. A lodge sale includes furniture, working capital and a trade name. A property-only comparable analysis should first:

A. Treat the entire sale as land value

B. Investigate and normalize the transferred package

C. Ignore the sale date

D. Apply the same room multiplier to every asset

3. Twenty-four rooms, 365 days and 60% occupancy give occupied room nights of:

A. 5,256

B. 8,760

C. 3,504

D. 14,600

4. At PHP 3,000 ADR, the room revenue from 5,256 occupied nights is:

A. PHP 9,460,800

B. PHP 26,280,000

C. PHP 15,768,000

D. PHP 5,256,000

5. Revenue PHP 20m less expenses PHP 12m, separate 3% fee and PHP 0.4m reserve leaves:

A. PHP 7m combined operating subtotal

B. PHP 8m property NOI automatically

C. PHP 7.6m

D. PHP 6.4m

6. A compatible PHP 7m combined stream capitalized at 14% gives:

A. PHP 98m

B. PHP 0.98m

C. PHP 40m automatically for land

D. PHP 50m for the defined package

7. Defined package 50m less compatible furniture 4m, working capital 1m and intangibles 5m leaves:

A. PHP 40m property remainder

B. PHP 45m

C. PHP 46m

D. PHP 60m

8. Property-only rent 4m less landlord expenses 0.4m, at 9% capitalization, gives:

A. PHP 44.444m

B. PHP 40m

C. PHP 50m

D. PHP 3.6m capital value

9. ADR of PHP 3,000 and occupancy 60% give model RevPAR of:

A. PHP 5,000

B. PHP 3,000

C. PHP 1,800

D. PHP 600

10. A modern school alternative already removes 600 sqm of unnecessary area. Deducting the same excess-area cost again would:

A. Establish higher demand

B. Correct a statutory assessment level

C. Repeat the same functional adjustment

D. Remove land value

11. Equivalent school cost 60m less 20% physical loss, then 10% distinct external loss, plus land 12m gives:

A. PHP 54m

B. PHP 55.2m

C. PHP 60m

D. PHP 43.2m total including land

12. Alternative redevelopment land 18m less demolition 2m gives 16m. Relative to a continuing-use model, it is:

A. An automatic court award

B. An additional component to add to continuing-use value

C. Proof the buildings have no physical utility

D. An alternative scenario requiring reconciliation

13. Four irrigated hectares at 1.2m and two rainfed hectares at 0.8m give land indication:

A. PHP 4.8m

B. PHP 7.2m

C. PHP 6.4m

D. PHP 8m

14. Farm land rent 340,000 less landlord costs 20,000, at 5%, gives:

A. PHP 6.4m land indication

B. PHP 6.8m

C. PHP 10m

D. PHP 16,000

15. Why is harvest surplus not automatically farm property NOI?

A. It contains no market information

B. It is always a capital gain

C. It can reward labour, operating risk and non-property assets

D. It is legally identical to fixed rent

16. Transferable year-end savings PHP 300,000 for three years at 10% have restricted present value:

A. PHP 300,000

B. PHP 3m

C. PHP 900,000 without discounting

D. About PHP 746,056

17. Ownership value before an access easement is 8m and after is 7.6m. Defined diminution is:

A. PHP 0.4m

B. PHP 0.8m automatically

C. PHP 7.6m

D. PHP 15.6m

18. Before whole value 5m and after remainder value 4.05m give a 0.95m difference. Adding the strip's 0.5m again would:

A. Produce the only lawful award

B. Correct an omitted depreciation rate

C. Value only the surviving land

D. Duplicate an amount already within the difference

19. When examining the Right-of-Way Act for a post-amendment case, the most appropriate source habit is:

A. Use only the original 2016 wording

B. Read RA 10752 with RA 12289 and relevant transition facts

C. Assume every old procedure is unchanged

D. Substitute a hotel capitalization model

20. The supplied amended Section 7 exercise totals a deposit of PHP 1.115m. The best label is:

A. An automatic payment for every partial taking

B. Final judicial just compensation automatically

C. Real-property NOI

D. Preliminary statutory deposit under the supplied case

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	B
2	B	12	D
3	A	13	C
4	C	14	A
5	A	15	C
6	D	16	D
7	A	17	A
8	B	18	D
9	C	19	B
10	C	20	D

1. B Method choice follows the assignment and evidence. An uncommon building does not make every cost recoverable.
2. B Comparable prices require consistent asset boundaries and rights.
3. A 24 × 365 × 0.60 = 5,256 occupied nights.
4. C Occupied nights × ADR = 15,768,000. Available nights would overstate this revenue.
5. A Fee = 0.6m; 20 − 12 − 0.6 − 0.4 = 7m. The supplied stream still contains operating-package contributions.
6. D 7/0.14 = 50m under the supplied package convention and rate.
7. A 50 − 4 − 1 − 5 = 40m. Allocation compatibility is stipulated rather than inferred from accounting labels.
8. B NOI = 3.6m; 3.6/0.09 = 40m.
9. C RevPAR = ADR × occupancy = 1,800, using the same available-night denominator.
10. C Equivalent utility has already addressed that excess. A separate loss must arise from a distinct unresolved cause.

Answer explanations continued

11. B 60 × 0.8 × 0.9 = 43.2m improvement; add 12m = 55.2m.
12. D Different use premises cannot simply be added. Feasibility and market support control reconciliation.
13. C 4 × 1.2 + 2 × 0.8 = 6.4m. The separately excluded building is not in this land figure.
14. A 320,000/0.05 = 6.4m for the property-only land stream.
15. C Enterprise receipts and costs require contribution analysis before a real-property conclusion.
16. D 300,000 × [1 − 1.1^−3]/0.10 = 746,055.60. The advantage ends after three years.
17. A 8 − 7.6 = 0.4m. The strip's full-ownership benchmark need not equal a limited-right effect.
18. D The case reconciles total difference as strip 0.5m plus remainder effect 0.45m.
19. B The 2025 statute amended the framework. The applicable version and facts must be established.
20. D The deposit calculation serves its prescribed stage. Final court-determined compensation is a separate output.

Worksheet model responses

Response 1

Define the owned real-property interest, date and basis. Record furniture and working capital as excluded from that property-only output, while retaining their relevance to operating evidence. Investigate leased equipment and brand rights. Exclusion from a property scope does not establish that an asset has no value.

Response 2

Room nights 8,760 available and 5,256 occupied; room revenue 15.768m; total 20m. Less 12m, fee 0.6m and reserve 0.4m leaves combined subtotal 7m. At 14% the package is 50m; compatible allocations leave 40m. Separate property NOI 4m − 0.4m = 3.6m; at 9% gives 40m.

Response 3

Equivalent cost 60m; physical deduction 12m leaves 48m; external deduction 4.8m leaves improvements 43.2m; add compatible land 12m for 55.2m. The modern alternative already removes the specified excess area. Continuing-use feasibility remains an explicit assumption.

Response 4

Irrigated 4.8m plus rainfed 1.6m gives land 6.4m. Building 0.6m gives package 7m. Land NOI 340,000 − 20,000 = 320,000; /5% = 6.4m. Crop enterprise surplus rewards additional labour, machinery, working capital and operating risk, so it is not property rent.

Response 5

Annual savings 300,000. Three-year annuity factor at 10% = 2.48685199; value PHP 746,055.60. Assignment restrictions, rent reviews, termination rights or restoration obligations could alter the benefit. No unstated renewal or perpetual years are included.

Response 6

Easement diminution 8m − 7.6m = 0.4m. The full ownership strip benchmark 0.8m is not automatically the limited right's value. Separate temporary-use allowance 6 × 5,000 + 40,000 = PHP 70,000. Different rights and conditions prevent automatic aggregation.

Response 7

Total difference 0.95m = strip 0.5m + remainder effect 0.45m. Alternative cure plus residual = 0.3m, reducing the remainder effect by 0.15m if the case's feasibility assumptions hold. Do not add full uncured loss to cure cost. The main before-and-after result is economic analysis, not an adjudicated award.

Response 8

Read the amended acquisition route and transition facts. Supplied deposit: 15% × 2m = 0.3m; 100% × 0.8m = 0.8m; 15% × 0.1m = 0.015m; total 1.115m. A professional effect model, statutory offer, preliminary deposit and final judicial amount answer distinct questions.

22 Essential terms and calculation review

Specialized property Property adapted to a particular activity or service.

Equivalent utility Comparable service capacity from a modern alternative.

Operating package Defined combination of property and non-property assets.

ADR Room revenue divided by occupied room nights.

Occupancy Occupied room nights divided by available room nights.

RevPAR Room revenue divided by available room nights.

Property NOI Defined property income less corresponding property expenses.

Leasehold benefit Defined contractual advantage within its enforceable term.

Easement Limited use right with specified retained owner rights.

Remainder effect Defined effect on the retained parcel after partial acquisition.

Cost to cure Feasible expenditure addressing a defined property impairment.

Acquisition deposit Prescribed preliminary amount distinct from final compensation.

Restricted teaching calculation	**Formula or result**
Room revenue	Rooms × days × occupancy × ADR
RevPAR	ADR × occupancy on a consistent denominator
Amihan property allocation	50m − 4m − 1m − 5m = 40m
Property-only capitalization	Property NOI / compatible property rate
Malaya improvement	60m × 80% × 90% = 43.2m
Luntian land income	320,000 / 5% = 6.4m
Finite rent savings	Savings × [1 − (1+i)^−n] / i
Easement effect	Consistent before value − after value
Partial-acquisition reconciliation	Strip value + distinct remainder effect
Alternative cure model	Feasible cure cost + remaining impairment

These relationships depend on their supplied scope and assumptions. Rates are teaching inputs. A correct numerical result does not by itself establish market evidence, transferability or legal entitlement.

23 Sources and preparation status

Research reviewed on 12 October 2026. The properties, models, explanations, worked cases, worksheet and questions are original educational work. They are not actual or recalled PRC examination questions. Selected international concepts and enacted Philippine provisions were checked; actual assignments require full applicable standards and operative legal measures.

1 IVSC real property interests

IVSC-authored redline effective 31 January 2025, hosted by ICAEW. Selected current IVS 400 concepts on printed pages 150 and 154–156 address interests, methods, comparisons, trading streams and cost. Current and deleted text were visually distinguished.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 Original Right of Way Act

RA 10752 original 2016 text provides the historical interface. Read its acquisition framework with later amendments.

https://lawphil.net/statutes/repacts/ra2016/ra_10752_2016.html

3 Amended acquisition framework

RA 12289 sections 6–7 amend negotiated-sale and expropriation provisions; section 19 addresses transition. The chapter uses a restricted deposit exercise, not an actual entitlement or current-IRR review.

https://www.lawphil.net/statutes/repacts/ra2025/ra_12289_2025.html

4 Agrarian rights interface

RA 6657, as amended. Agricultural tenure, transfer and use restrictions require parcel-specific investigation; no conversion or transfer determination is made here.

https://lawphil.net/statutes/repacts/ra1988/ra_6657_1988.html

REALEX

Lesson 31

Mass Appraisal and Assessment Model Quality

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Define the population, verify comparable evidence and test the model at both pooled and subgroup levels. A satisfactory overall median can conceal weak dispersion or a price-related pattern within a particular market area.

This lesson develops an original twelve-sale dataset, a four-observation independent prediction test, a transparent toy model and a review of mass appraisal governance. It includes ten worked cases, a two-page worksheet and twenty original questions with explained answers.

All observations, model coefficients and review targets are fictional teaching inputs. Ratio diagnostics do not establish actual municipal performance, approve an SMV or determine a taxpayer's bill. International statistical guidance is distinguished from the Philippine statutory and standards framework.

Your learning goals

- Distinguish mass appraisal from an individual assignment.
- Define population strata property interests and valuation date.
- Verify sales and retain inclusion and exclusion reasons.
- Align benchmark price with model scope condition and date.
- Compute parcel ratios median mean and weighted mean.
- Calculate COD using absolute deviations from the median.
- Interpret PRD and sample price patterns cautiously.
- Identify subgroup problems hidden by pooled statistics.
- Explain the limits of a uniform level adjustment.
- Calculate MAE MAPE and RMSE on separate test observations.
- Protect evaluation against leakage and sales chasing.
- Separate model market value assessed value and tax policy.

Study plan: Allow five hours in two sessions. Read sections 1–8 for evidence and ratio calculations, then sections 9–16 for interpretation, independent tests and governance. Attempt cases, worksheet and questions before checking responses. Prerequisite themes are evidence, market data and statistical analysis.

1 Define mass appraisal and the decision it supports

Mass appraisal values a defined group of properties at a common date through systematic data, models and review. Its practical task is to produce consistent conclusions for many parcels without losing the meaning of the property interests being valued. An individual assignment investigates one defined subject in depth; mass appraisal designs a system that can be applied across a population and evaluated at both group and parcel level.

Scale does not excuse weak evidence. A model can reproduce its training sales closely yet perform poorly on other properties. A schedule can be easy to administer but fail to represent differences in location, access, use and physical utility. The aim is not merely to finish the roll quickly; it is to support the defined valuation purpose through reliable and consistently applied evidence.

Define the jurisdiction or study area, property classes, included interests, valuation date and output. A market-value model, a statutory assessed-value roll and a tax-impact forecast are related but distinct products. Their fields must be labelled so that a lower assessed amount is not automatically interpreted as under-appraisal against market price.

The original San Isidro study below concerns market-value model outputs for residential property interests. Twelve fictional verified sales are normalized to 30 September 2026. They form an arithmetic demonstration, not a representative sample of an actual municipality. All rates, sample records, decision targets and model coefficients are supplied teaching assumptions.

2 Design the population before selecting the sample

A population is the complete set about which the study intends to draw conclusions. A sample contains the observations used for estimation or testing. If the roll has residential, commercial and agricultural properties but the sample contains only urban houses, residential statistics cannot establish quality across the entire roll. Name the population and the covered strata explicitly.

Begin with stable parcel identifiers, property type, location, land and building measurements, condition, use restrictions and dates of observation. Align these fields with the interest and valuation date. For a sale, record the transferred rights and the property condition at transfer. A new building added after sale can make a later model output incomparable to the earlier sale price.

The San Isidro example uses two supplied residential market areas. Area A contains an established neighbourhood with relatively comparable properties. Area B contains a more heterogeneous area with a wider range of property values. The strata are established from market and location evidence before the ratios are calculated; they are not invented after seeing which groups produce attractive statistics.

Study element	Original specification
Population	Defined residential property interests in the study areas
Valuation date	30 September 2026
Strata	Area A and Area B selected before ratio calculation
Core sample	Twelve fictional normalized sales
Numerator	Model market value before assessment policy
Denominator	Compatible normalized sale benchmark
Limits	Arithmetic teaching data not a representative municipal sample

Coverage analysis should compare the available sales with the parcel population. Investigate underrepresented locations, ages, sizes and use categories. The study may need supplementary evidence or a restricted conclusion. A large number of repeated sales in one subdivision does not compensate automatically for an absence of evidence in another market segment.

3 Verify sales and retain the evidence trail

A recorded consideration is evidence to investigate, not a guaranteed market benchmark. Review parties, transferred rights, financing, concessions, included movable assets and the property's condition. The IAAO sales-verification material provides a dated international reference for those checks. [2] The original register below translates that evidence discipline into fictional review decisions.

Record an inclusion status and a reason. S-13 is a family transfer for nominal consideration and is not treated as an arm's-length price in the core study. S-14 is a house-and-furniture package with no supported allocation, so it is pending normalization. S-15 duplicates S-04 and is excluded as a duplicate observation. S-16 has a substantial post-sale addition with no reconstructed sale-date characteristics and is pending comparability review.

A record with an unusually high or low ratio is not automatically an invalid sale. First test data entry, parcel match, rights, dates and market circumstances. A valid unusual property may expose a model limitation. Deleting it solely because it makes the statistics worse can conceal the limitation the study is meant to identify.

Keep the raw reported price, supported adjustments, normalized price, reviewer, source, decision date and reason separately. Retain exclusions in a review register rather than silently removing rows. This allows another reviewer to reproduce the study and see how judgments affected the sample.

Record	Review fact	Study decision
S-13	Nominal family transfer	Excluded from core arm's-length benchmark
S-14	Furniture package without allocation	Pending supported normalization
S-15	Duplicate of S-04	Excluded as duplicate
S-16	Post-sale addition not reconstructed	Pending scope and condition review

4 Match the date and the valuation scope

The numerator and denominator must describe compatible interests, assets, conditions and dates. For the main dataset, the normalized sale benchmark includes the same land-and-building property interest as the model output. No statutory assessment level has been applied. The date adjustment is already incorporated into the supplied benchmark prices.

A separate time-adjustment exercise supplies a PHP 1 million sale three months before the valuation date and a supported teaching trend of 2% per month compounded forward. The normalized benchmark is $1{,}000{,}000 \times 1.02^3$ = PHP 1,061,208. A model output of PHP 1,050,000 gives a ratio of approximately 0.989439 against that adjusted benchmark, rather than 1.05 against the unadjusted price.

The trend is a supplied exercise input, not a claim about Philippine house prices. Establish the direction, time interval and market support before adjusting. A falling market, a backward adjustment or a simple monthly convention would change the calculation. Do not let a spreadsheet silently choose the convention.

Do not compare land-only output with a sale that includes useful buildings. Likewise, a leasehold price is not a freehold benchmark without an appropriate rights analysis. Date alignment cannot repair an asset-boundary mismatch. Examine both the physical and legal composition of each paired observation.

5 Build the original ratio dataset

For each included observation, the teaching ratio is model market value divided by normalized sale benchmark. A ratio of 1.00 indicates agreement with that benchmark. A ratio of 0.90 means the model is 10% below it; 1.20 means 20% above it. The ratio does not prove that the sale benchmark is error-free or that the individual market value is known with certainty.

Area A has six supplied ratios: 0.90, 0.95, 1.00, 1.00, 1.05 and 1.10. Its benchmark prices total PHP 14 million and model outputs total PHP 14.375 million. Area B has ratios 1.20, 1.10, 1.00, 0.90, 0.80 and 0.70, with benchmark prices totalling PHP 17.5 million and outputs PHP 14.95 million.

The complete twelve-row sample totals PHP 31.5 million benchmark price and PHP 29.325 million model output. Carry exact values through the calculations and round only reported results. Sorting the ratios changes their order for median calculation but does not change the paired price and output associated with each parcel.

The dataset is deliberately constructed to show different diagnostic messages. Area A has relatively narrow spread around 1.00. Area B has higher ratios on lower-priced observations and lower ratios on higher-priced observations. Pooling them can obscure that pattern even where the overall median looks satisfactory.

ID	Area	Benchmark PHP m	Model PHP m	Ratio
S-01	A	1.000	0.900	0.90
S-02	A	1.500	1.425	0.95
S-03	A	2.000	2.000	1.00
S-04	A	2.500	2.500	1.00
S-05	A	3.000	3.150	1.05
S-06	A	4.000	4.400	1.10
S-07	B	1.000	1.200	1.20
S-08	B	1.500	1.650	1.10
S-09	B	2.000	2.000	1.00
S-10	B	3.000	2.700	0.90
S-11	B	4.000	3.200	0.80
S-12	B	6.000	4.200	0.70

6 Distinguish median mean and weighted mean

The median is the middle sorted ratio, averaging the two middle entries for an even sample. The arithmetic mean adds the parcel ratios and divides by the number of observations. The price-weighted mean divides total model output by total normalized sale price. The latter gives more influence to observations with larger benchmark prices.

For Area A, the median and arithmetic mean are both 1.00. The weighted mean is 14.375/14 = 1.0267857. Equal parcel-level centrality and dollar-weighted level can therefore differ. Area A’s higher-priced observations have relatively higher ratios, which influences the weighted result.

For Area B, the median is (0.90 + 1.00)/2 = 0.95 and the arithmetic mean is 0.95. The weighted mean is 14.95/17.5 = 0.8542857. The large-price observations carry lower ratios, pulling the weighted mean below the parcel-level mean.

For all twelve observations, the median is 1.00, the arithmetic mean is 0.975 and the weighted mean is 29.325/31.5 = 0.9309524. None is a substitute for the others. Identify the diagnostic question: a typical parcel ratio differs from the proportion of total benchmark value represented by model outputs.

Sample	Median	Mean	Weighted mean
Area A n=6	1.000000	1.000000	1.026786
Area B n=6	0.950000	0.950000	0.854286
Pooled n=12	1.000000	0.975000	0.930952

7 Calculate the coefficient of dispersion correctly

The teaching coefficient of dispersion, COD, is 100 times the average absolute distance of parcel ratios from their median, divided by that median. Absolute distances prevent positive and negative differences from cancelling. COD is not calculated from signed deviations or from the weighted mean.

For Area A, absolute distances from median 1.00 are 0.10, 0.05, 0, 0, 0.05 and 0.10. Their sum is 0.30 and average is 0.05. COD is 100 × 0.05/1.00 = 5%. This describes dispersion in the supplied sample, not an average monetary error of 5% for every property in the neighbourhood.

For Area B, absolute distances from median 0.95 are 0.25, 0.15, 0.05, 0.05, 0.15 and 0.25. Sum is 0.90, average 0.15, and COD is 100 × 0.15/0.95 = 15.7895%. The denominator is 0.95; replacing it with 1.00 would produce the wrong COD.

Across the twelve observations, absolute distances from the pooled median 1.00 sum to 1.20. The average distance is 0.10, giving pooled COD 10%. This result lies between the two subgroup results. It does not erase Area B's larger dispersion or establish that the same review priority is appropriate everywhere.

Sample	Median	Sum absolute deviations	COD
Area A	1.00	0.30	5.0000%
Area B	0.95	0.90	15.7895%
Pooled	1.00	1.20	10.0000%

8 Interpret the price related differential with caution

The price-related differential, PRD, is arithmetic mean ratio divided by price-weighted mean ratio. For Area A it is 1.00/1.0267857 = 0.9739130. For Area B it is 0.95/0.8542857 = 1.1120401. The pooled result is 0.975/0.9309524 = 1.0473146.

Area B's constructed rows directly show the concern: ratio 1.20 at a PHP 1 million benchmark and ratio 0.70 at PHP 6 million. Lower-priced sample observations are valued at larger proportions of benchmark than higher-priced ones. This is a regressive appraisal pattern in the fictional data. It does not determine the final tax burden, which also depends on applicable assessment and tax policy.

Area A's price-weighted result suggests the opposite direction in its supplied rows. With only six observations, neither subgroup supports a formal population-wide significance conclusion. Examine the paired rows and broader evidence rather than treating a single PRD number as proof of systematic misconduct or a statutory breach.

The selected IAAO ratio-study reference supplies the conventional median, COD and PRD framework and cautions about sample reliability. [1] Its international guidance is not a Philippine statutory assessment percentage. This lesson does not reproduce an official acceptance-range table or turn an exposure draft into an adopted requirement.

Sample	COD	PRD	Teaching diagnosis
Area A	5.0000%	0.973913	Narrow spread in supplied rows
Area B	15.7895%	1.112040	Wider spread and downward ratio/price pattern
Pooled	10.0000%	1.047315	Median alone conceals subgroup concern

9 Diagnose what the pooled result conceals

The original teaching review screen is stipulated as median within 0.95–1.05 and COD no higher than 12%. These are exercise targets chosen for this fictional review, not national legal requirements or a quoted IAAO acceptance standard. They help demonstrate how an apparently satisfactory overall result can conceal a subgroup concern.

The pooled sample has median 1.00 and COD 10%, satisfying both stipulated screens. Area A also meets them. Area B has median 0.95, at the permitted boundary, but COD 15.7895%, exceeding the stipulated dispersion screen. Its price pattern adds a separate concern that the two screens alone do not capture.

Investigate location variables, property sizes, condition coding and market segmentation before selecting corrective action. A boundary issue might arise if the model groups high-value riverside plots with ordinary internal plots. A missing feature can create systematic residuals that a blanket multiplier cannot fix.

A dashboard should present sample counts, numerator definitions, subgroup results and limitations alongside the pooled figures. Colour alone is insufficient. A green overall tile can be misleading if the reader cannot see that the sample is small, the sale coverage is restricted and one area has a materially different pattern.

10 Explain why level adjustment does not cure every error

A common temptation is to multiply every output in Area B by the reciprocal of its median. The supplied factor is 1/0.95 = 1.0526316. That moves its median to 1.00. However, each absolute distance and the median are multiplied by the same positive factor, so its COD remains 15.7895%.

The mean and weighted mean also rise proportionally; their quotient, PRD, remains 1.1120401. The ratio 1.20 becomes approximately 1.2631579 and the ratio 0.70 becomes approximately 0.7368421. The adjustment raises both ends without removing their systematic price-related difference.

This does not mean a level adjustment is never appropriate. It can address a consistent level problem when its justification, scope and market evidence are supported. The San Isidro example instead contains a spread and gradient problem, so changing only the level cannot answer the whole diagnosis.

Corrective work may require better property data, revised market areas, model specification changes or supported feature effects. Re-test changes on evidence not used to choose the adjustment. A model that improves only the calibration sample may have learnt the sample's peculiarities rather than the market relationship.

11 Build a transparent valuation model

A mass appraisal model can use market comparison, cost or income relationships, depending on the property type and evidence. Computer-assisted mass appraisal, CAMA, describes a system supporting mass valuation and records. An automated valuation model, AVM, is a model or automated process producing estimates; neither label guarantees quality or removes the need for professional governance.

A separate toy equation is supplied in PHP millions: predicted value = 0.50 + 0.008 × land area in sqm + 0.004 × floor area in sqm. A property with 200 sqm land and 100 sqm floor area produces 0.50 + 1.60 + 0.40 = PHP 2.50 million. A separately stipulated compatible location factor of 1.10 gives PHP 2.75 million.

These coefficients are teaching assumptions, not fitted or verified market parameters. Define which assets the equation includes and how the location factor applies. If the recorded floor area is missing, treating it as zero would produce PHP 2.10 million after the location factor, but would falsely equate unknown floor area with no building. Missingness needs an explicit review policy.

A real model requires documented input definitions, coefficient estimation or calibration, applicability limits and residual checks. An attractive regression fit cannot establish legal transferability, correct title identification or accurate area measurements. Technical complexity should strengthen the evidence trail rather than conceal it.

12 Use independent testing and explain prediction errors

Keep calibration and validation roles separate. A holdout sample is not used to fit or select the model. If the team repeatedly tunes the model after examining the same holdout results, that sample becomes part of model selection and is no longer a clean independent test. A new test set or disciplined evaluation design is then needed.

The original four-row holdout exercise has benchmark prices PHP 2m, 3m, 4m and 5m and model outputs PHP 1.8m, 2.7m, 4.4m and 5.5m. Ratios are 0.90, 0.90, 1.10 and 1.10. Define signed error as model minus benchmark. Errors are −0.2m, −0.3m, +0.4m and +0.5m.

Mean absolute error, MAE, is (0.2 + 0.3 + 0.4 + 0.5)/4 = PHP 0.35 million. Mean absolute percentage error, MAPE, is 10%, because every absolute error is 10% of its own benchmark. Root mean squared error, RMSE, is the square root of (0.04 + 0.09 + 0.16 + 0.25)/4 = approximately PHP 0.367423 million.

The sample's median ratio is 1.00, but its MAPE and COD are both 10% in this deliberately symmetric example. Their equality is incidental. MAE measures money, MAPE uses each sale denominator and COD measures ratio dispersion about the median. A different distribution can make them diverge substantially.

Holdout	Benchmark PHP m	Model PHP m	Error PHP m	Ratio
H-01	2.0	1.8	−0.2	0.90
H-02	3.0	2.7	−0.3	0.90
H-03	4.0	4.4	+0.4	1.10
H-04	5.0	5.5	+0.5	1.10

13 Protect against leakage and selective treatment

Data leakage occurs when information unavailable at the intended prediction point enters the model or its evaluation. Setting a sold parcel's output equal to its sale price before testing would manufacture an excellent ratio for that row. Selectively doing so for sold parcels while retaining ordinary model outputs for unsold parcels is a sales-chasing concern, not evidence that the whole roll improved.

A useful control is to freeze the tested model version and retain outputs generated before the test sale information was used. Separate property-characteristic corrections from sale-price substitution. If an actual measurement error is corrected, evaluate whether the same correction process applies to comparable unsold parcels rather than only to properties that sold.

Duplicates can leak a transaction into both training and testing. Multiple rows representing the same parcel or related transaction should be reviewed as a group when designing the split. A superficially random row split can still put the same economic observation on both sides.

The number of appeals is not a stand-alone accuracy measure. Low appeals can reflect lack of awareness, cost of pursuing remedies or a weak records process. High appeals can reflect a newly updated roll or procedural

issues. Examine outcomes, reasons, market evidence and sample quality before using appeal counts to judge model performance.

14 Govern outliers uncertainty and model changes

Use a documented sequence: flag an unusual observation, verify the transaction and parcel data, identify any justified exclusion or correction, then report the effect of the decision. If the sale is valid but the property is outside the model's intended domain, explain the applicability limit and the separate valuation route. Do not relabel inconvenient valid evidence as "bad data" without support.

The San Isidro twelve-row dataset is too small and deliberately constructed to support actual population conclusions. A sample statistic is a point estimate, not a guarantee about every parcel. Wider inference requires an appropriate sampling design and evaluation of uncertainty. This lesson does not invent a confidence interval without a stated method and assumptions.

Retain model identifier, dataset version, valuation date, input lineage, inclusion rules, calibration process, validation results and approvals. Log manual overrides with a reason, evidence and reviewer. An unexplained override can weaken consistency even where the resulting amount looks reasonable.

A change to location coding or building condition should trigger a review of affected parcels, not merely a change to one dashboard total. Compare old and new outputs, identify the driver and test whether the revision improves evidence-based performance. Changes that materially affect property groups need clear documentation for review and communication.

15 Keep Philippine valuation policy and tax policy separate

RA 12001 separates valuation from tax policy and establishes a market-value and PVS framework. Its provisions address standards, valuation and SMV preparation and review. [3] A mass appraisal model may support market evidence and proposed schedules, but a diagnostic score does not itself constitute SMV approval or establish the amount legally payable as tax.

A restricted policy example supplies market value PHP 2 million and a hypothetical applicable assessment level of 20%. Assessed value is PHP 400,000. Dividing that assessed amount by the same PHP 2 million benchmark gives 0.20, which reflects the supplied policy level. It cannot be interpreted as proof that the market-value model is 80% too low.

BLGF's published course outline for Local Assessment Manual Book IV Chapter II identifies mass appraisal, valuation dates, testing, tax-impact study and proposed-SMV review as related topics. [4] The outline is evidence of the module's topics; it is not the complete manual. A current full-text national-manual comparison remains separate from this chapter's checked statistical concepts.

For actual assessment practice, establish the operative PVS, national implementing rules, approved schedule and local policy inputs. The lesson's exercise targets and toy model are not a substitute for those authorities. Lesson 32 will develop applied taxation and remedies with dated legal and locality-specific assumptions.

16 Report the findings as a reviewable decision

A concise San Isidro review would state that the twelve fictional observations produce a pooled median of 1.00, COD 10% and PRD 1.047315. It would immediately add that Area B has COD 15.7895% and a constructed downward ratio pattern with price. The pooled screen therefore does not justify clearing both areas without further investigation.

Recommend investigating Area B's data and model specification, obtaining broader independent evidence and retesting the affected group. Do not claim that increasing all Area B outputs by 5.2632% solves the spread or price pattern. Show the unchanged COD and PRD after that scaling to support the recommendation.

The report should preserve its population definition, sample selection, benchmark adjustments, statistic formulas, subgroup results and limitations. State whether the output is model market value or statutory assessed value. Identify the next evidence or review step, the responsible role and the criteria for accepting a revised model.

The professional habit is to connect each metric to the question it can answer. Level asks where ratios centre, dispersion asks how widely they vary, price-related diagnostics examine patterns with value, and holdout errors test predictions on separate evidence. Governance determines whether those results can be trusted and reproduced.

17 Ten worked mass appraisal cases

Attempt each question before reading the solution. Asset rights, cost inclusions and calculation conventions are stipulated where stated. Preserve each unit, calculation base and model convention.

Case 1 Separate market and assessed amounts

Question: A market-value model produces PHP 2m, matching a normalized market benchmark of PHP 2m. An independently stipulated assessment level is 20%. Compute both ratios and interpret them.

Solution: Market model ratio = 2m/2m = 1.00. Assessed value = PHP 400,000; assessed/benchmark ratio = 0.20.

Reasoning: The second ratio incorporates the policy percentage. It does not prove that the market model is 80% below market.

Case 2 Normalize a dated benchmark

Question: A PHP 1m sale occurred three months before the valuation date. Supplied supported trend is 2% monthly compounded forward; model output PHP 1.05m.

Solution: Normalized benchmark = 1m × 1.02^3 = PHP 1,061,208. Ratio = 1,050,000/1,061,208 = about 0.989439.

Reasoning: The direction, interval and convention are stated. The 1.05 ratio against raw price answers a mismatched-date question.

Case 3 Calculate Area A centrality

Question: Ratios are 0.90, 0.95, 1.00, 1.00, 1.05, 1.10. Benchmark total is 14m and output total 14.375m.

Solution: Median = 1.00; mean = 1.00; price-weighted mean = 14.375/14 = 1.026786.

Reasoning: The first two give equal parcel influence; the weighted measure reflects benchmark-price weights.

Case 4 Calculate Area B dispersion

Question: Area B ratios are 1.20, 1.10, 1.00, 0.90, 0.80, 0.70. Use the proper median denominator.

Solution: Median = 0.95. Absolute deviations sum to 0.90; average 0.15. COD = 100 × 0.15/0.95 = 15.7895%.

Reasoning: Absolute deviations do not cancel. A denominator of 1.00 would produce an incorrect COD of 15%.

Case 5 Interpret Area B price pattern

Question: Area B mean is 0.95; output total 14.95m; benchmark total 17.5m. Compute PRD and compare the low-price ratio 1.20 with high-price ratio 0.70.

Solution: Weighted mean = 0.854286; PRD = 0.95/0.854286 = 1.112040. The constructed rows show relatively higher appraisal proportions at lower prices.

Reasoning: This is a sample diagnostic and a regressive pattern in the fictional rows, not a formal population or final-tax conclusion.

Case 6 Test the pooled screen

Question: Pooled median is 1.00 and COD 10%. Area B median is 0.95 and COD 15.7895%. Stipulated exercise screen is median 0.95–1.05 and COD at most 12%.

Solution: Pooled sample meets both screens. Area B meets the median boundary but exceeds the dispersion screen.

Reasoning: Aggregate results can conceal subgroup concerns. These screens are fictional review targets rather than national legal thresholds.

Case 7 Evaluate a uniform correction

Question: Every Area B output is multiplied by 1/0.95. What happens to median, COD and PRD?

Solution: Factor = 1.052632; median becomes 1.00. COD remains 15.7895%; PRD remains 1.112040.

Reasoning: A positive common multiplier scales deviations and median equally, and scales mean and weighted mean equally. It adjusts level without removing spread or gradient.

Case 8 Apply the transparent toy model

Question: In PHP millions, value = 0.50 + 0.008 × land sqm + 0.004 × floor sqm, then a supplied 1.10 location factor. Land 200 sqm; floor 100 sqm.

Solution: Base = 0.50 + 1.60 + 0.40 = 2.50m. Adjusted output = PHP 2.75m.

Reasoning: Coefficients and factor are stipulated. Missing floor area must not automatically be recorded as zero.

Case 9 Compute holdout errors

Question: Benchmarks 2m, 3m, 4m, 5m; outputs 1.8m, 2.7m, 4.4m, 5.5m. Calculate MAE, MAPE and RMSE.

Solution: Errors = −0.2m, −0.3m, +0.4m, +0.5m. MAE = 0.35m; MAPE = 10%; RMSE = √(0.54/4) = 0.367423m.

Reasoning: MAE and RMSE have monetary units; MAPE uses each benchmark as its denominator. Independent validation also requires a clean separation from model fitting.

Case 10 Review a suspicious improvement

Question: Sold-parcel outputs are reset equal to sale prices before testing, while unsold parcels keep the ordinary model. Reported sold ratios become exactly 1.00.

Solution: The test has been contaminated. Freeze an appropriate model version, retain output history and investigate selective treatment before relying on the apparent improvement.

Reasoning: Sale-price substitution can manufacture perfect ratios without improving unsold properties. Legitimate data corrections should follow a documented consistent policy.

18 Mass appraisal worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Population and sale checks

Define the study population and two location strata. Explain why nominal family transfers, unsupported furniture packages, duplicates and post-sale additions need distinct review decisions.

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2 Area A ratios and centrality

Using the six Area A rows, compute each ratio, median, mean and weighted mean. Explain why the price-weighted result differs from the mean.

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3 Area B dispersion and PRD

Compute Area B median, absolute deviations, COD, weighted mean and PRD. Describe the constructed relation between price and ratio without claiming population significance.

_____

_____

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4 Pooled result and review priority

Compute pooled median, mean, weighted mean, COD and PRD. Apply the stipulated median 0.95–1.05 and COD ≤12% screen to pooled data and Area B. Identify the appropriate next investigation.

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_____

Mass appraisal worksheet continued

5 Time and policy alignment

Adjust a 1m benchmark forward three months at compounded 2% monthly and pair it with model 1.05m. Separately compute assessed value from market 2m at 20%. Explain the two different denominator issues.

_____

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_____

6 Uniform scaling and toy equation

Show why scaling Area B by 1/0.95 changes median but not COD or PRD. Apply the supplied equation to 200 sqm land and 100 sqm floor with factor 1.10. Explain treatment of missing floor area.

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_____

7 Independent prediction test

Calculate signed errors, MAE, MAPE and RMSE for the four holdout rows. Identify why repeated tuning on those same rows weakens the independence of the test.

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8 Governance and statutory interface

Prepare five essential entries in a model change log. Explain sales-chasing concerns and why a ratio score does not approve an SMV or determine the tax payable. State the limits of the checked BLGF module outline.

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19 Review and examination checks

Distinction	Examination check
Individual and mass	Depth for a subject differs from population system design
Population and sample	Covered parcels differ from test observations
Raw and normalized price	Supported adjustment trail preserved
Market and assessed amount	Policy percentages do not measure market-model error
Sale date and valuation date	Comparable benchmark brought to the intended date
Median and weighted mean	Equal parcel influence differs from price weighting
Level and dispersion	Correct centre does not guarantee narrow spread
COD and percentage error	Median dispersion differs from sale-denominator error
PRD and significance	Sample signal does not establish population inference
Pooled and subgroup	Overall result can hide a localized weakness
Scaling and respecification	Level correction may leave spread and gradient unchanged
Missing and zero	Unknown area is not confirmed absence
Calibration and validation	Independent test protected from tuning
Correction and chasing	Evidence correction differs from selective sale-price substitution
Statistic and approval	Model quality does not establish statutory SMV approval

Explain the evidence to decision chain

Define the population and date; verify and normalize observations; match model output with the benchmark; compute and interpret pooled and subgroup diagnostics; review independent prediction errors; and document the supported corrective action and its limits.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. Mass appraisal primarily requires:

A. A defined population, common date and systematic valuation and testing

B. Identical values for every parcel

C. Elimination of professional review

D. The most recent sale price for each unsold property

2. A market model 2m matches a 2m benchmark. Assessed value is 0.4m at stipulated 20%. The 0.20 assessed/benchmark ratio shows:

A. The model ratio equals zero

B. The market model is 80% too low

C. The sale must be invalid

D. The supplied policy level, not automatic market-model error

3. A nominal family transfer should be:

A. Given double weight

B. Automatically used as a normal market price

C. Deleted without a trace

D. Reviewed and coded with a supported inclusion or exclusion reason

4. A sale includes useful buildings, but the model output is land-only. The primary problem is:

A. A mismatch in the asset scope

B. A COD exceeding 100% automatically

C. A guaranteed false price

D. A missing tax rate only

5. A 1m price adjusted forward three months at 2% monthly compounded becomes:

A. PHP 1,061,208

B. PHP 1,060,000

C. PHP 1,020,000

D. PHP 1,600,000

6. Model output 0.9m divided by normalized price 1m gives:

A. Ratio 10

B. Ratio 1.1111

C. Ratio 0.90

D. Ratio 0.10

7. Area A sorted ratios 0.90, 0.95, 1.00, 1.00, 1.05, 1.10 have median:

A. 0.95

B. 0.975

C. 1.025

D. 1.00

8. Area B ratios 0.70, 0.80, 0.90, 1.00, 1.10, 1.20 have median:

A. 0.90

B. 1.00

C. 0.95

D. 1.20

9. Output total 14.95m and benchmark total 17.5m produce weighted mean:

A. 0.95

B. About 0.854286

C. 1.170569

D. 14.95

10. For Area B, average absolute deviation 0.15 and median 0.95 give COD:

A. 15.7895%

B. 15%

C. 0%

D. 95%

11. PRD with mean 0.95 and weighted mean 0.854286 is approximately:

A. 0.899248

B. 1.112040

C. 0.095714

D. 0.95

12. In the constructed sample, ratios fall from 1.20 at low price to 0.70 at high price. This indicates:

A. A regressive appraisal pattern in those rows

B. Proof of equal final tax burden

C. Guaranteed criminal misconduct

D. A population significance result without further evidence

13. Pooled median 1.00 and COD 10% pass a stipulated screen, but Area B COD is 15.7895% against a 12% limit. The appropriate response is:

A. Delete Area B's highest-price valid sale

B. Clear all groups based only on pooled figures

C. Investigate the subgroup concern

D. Assume the screen is Philippine law

14. Multiplying all positive Area B ratios by 1/0.95 changes its median to 1.00 and:

A. Makes COD zero

B. Leaves COD and PRD unchanged

C. Always eliminates regressivity

D. Sets every ratio to 1.00

15. The toy base 0.50 + 0.008 × 200 + 0.004 × 100, with factor 1.10, gives:

A. PHP 2.50m after the factor

B. PHP 2.75m

C. PHP 2.10m

D. PHP 0.55m

16. Missing floor area should normally be:

A. Replaced with the sale price

B. Treated as proven zero without investigation

C. Flagged as unknown under a documented review policy

D. Ignored because a model has an intercept

17. Holdout absolute errors 0.2m, 0.3m, 0.4m and 0.5m give MAE:

A. 10% monetary error

B. PHP 1.4m

C. PHP 0.367423m

D. PHP 0.35m

18. Every holdout absolute error is 10% of its own benchmark. MAPE is:

A. 40%

B. 0.35m

C. 10%

D. 1.00

19. Sold outputs are reset to their sale prices before evaluation. Perfect ratios then:

A. Prove unsold parcels are equally accurate

B. Require investigation of contaminated testing and selective treatment

C. Establish statutory approval

D. Eliminate need for output history

20. The published BLGF course outline for the assessment module can support:

A. A universal COD legal threshold

B. A claim that every manual clause was read

C. Automatic approval of this toy model

D. The listed topics, while full-manual requirements still need separate review

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	A	11	B
2	D	12	A
3	D	13	C
4	A	14	B
5	A	15	B
6	C	16	C
7	D	17	D
8	C	18	C
9	B	19	B
10	A	20	D

1. A Define the population and property interests before designing consistent models.
2. D Market model ratio is 1.00. Applying an assessment level creates a different numerator.
3. D Transaction circumstances require verification and a retained evidence trail.
4. A Numerator and denominator must describe compatible assets and interests.
5. A 1,000,000 × 1.02^3 = 1,061,208 under the specified convention.
6. C The specified ratio is model market value / normalized sale benchmark.
7. D Average the third and fourth entries in the even six-row sample.
8. C Median = (0.90 + 1.00)/2 = 0.95.
9. B The price-weighted ratio is total output / total normalized benchmark.
10. A COD = 100 × 0.15/0.95. Use absolute deviations and the median denominator.

Answer explanations continued

11. B PRD = arithmetic mean ratio / weighted mean ratio.

12. A The sample shows higher appraisal proportions on lower-priced observations. Broader conclusions require additional evidence.

13. C Aggregation can conceal subgroup problems; the exercise target is not a statutory standard.

14. B Common scaling cancels in both the COD and PRD relationships.

15. B Base 2.50m × 1.10 = 2.75m under the supplied equation.

16. C Unknown data and absence of a building are different states.

17. D MAE = 1.4m/4 = 0.35m and has monetary units.

18. C Average the four absolute percentage errors, each 10%.

19. B Sale-price substitution can manufacture fit without improving independent prediction.

20. D The outline lists subjects; it is not the complete authoritative manual text.

Worksheet model responses

Response 1

Define the same residential interest at 30 September 2026 and identify the areas represented. Family nominal consideration is not a core arm's-length benchmark; unsupported package allocation and post-sale change remain pending review; duplicate S-15 is excluded as a duplicate. Keep source and reason in the register.

Response 2

Area A ratios 0.90, 0.95, 1.00, 1.00, 1.05, 1.10. Median 1.00; mean 6.00/6 = 1.00; weighted mean 14.375/14 = 1.026786. Higher-priced observations have higher ratios in these constructed rows, so price weighting differs from equal parcel weighting.

Response 3

Area B median 0.95; deviations 0.25, 0.15, 0.05, 0.05, 0.15, 0.25 sum 0.90. COD = (0.90/6)/0.95 × 100 = 15.7895%. Weighted mean 14.95/17.5 = 0.854286; PRD 0.95/0.854286 = 1.112040. Lower-priced rows carry larger ratios; six rows do not establish a population significance result.

Response 4

Pooled median 1.00; mean 11.70/12 = 0.975; weighted mean 29.325/31.5 = 0.930952; deviations from 1.00 sum 1.20, COD 10%; PRD 1.047315. Pooled screens pass, Area B dispersion fails. Investigate data, market-area coding and model specification; obtain broader independent evidence.

Response 5

Adjusted benchmark PHP 1,061,208 and model ratio about 0.989439. The raw-price ratio 1.05 mismatches dates. Separate assessed value PHP 400,000 and assessed/market ratio 0.20 reflect the supplied policy factor; market-model ratio remains 1.00 when model and benchmark are both 2m.

Response 6

Common factor 1.052632 brings Area B median to 1.00 but leaves COD 15.7895% and PRD 1.112040. Toy base 0.50 + 0.008 × 200 + 0.004 × 100 = 2.50m; ×1.10 = 2.75m. Missing floor area is unknown, not confirmed zero; flag and investigate under a documented policy.

Response 7

Signed errors −0.2m, −0.3m, +0.4m, +0.5m; MAE 0.35m; MAPE 10%; RMSE 0.367423m. Repeated selection based on this holdout incorporates it into model development. Use a new independent test or a properly designed validation process for the revised model.

Response 8

Log model identifier, data version, valuation date, changed inputs/coefficient rationale, reviewer/approval and validation results. Preserve output history and manual-override evidence. Resetting only sold values to sale prices contaminates the test. RA 12001 approval and tax policy require their own lawful process. The BLGF course outline confirms topics, not full-manual compliance.

22 Essential terms and calculation review

Population Complete defined group about which the study seeks conclusions.

Stratum Market-relevant subgroup established for analysis.

Normalized benchmark Verified price adjusted to comparable scope date and terms.

Ratio Model market output divided by its compatible benchmark.

Weighted mean Total model output divided by total benchmark price.

COD Average absolute ratio deviation from median as percent of median.

PRD Arithmetic mean ratio divided by price-weighted mean ratio.

Holdout Test observations kept outside fitting and model selection.

MAE Mean absolute error in the monetary unit.

MAPE Mean absolute error as percent of each benchmark.

RMSE Square root of average squared monetary prediction error.

Leakage Use of information that contaminates intended independent prediction.

Relationship	Formula or restricted result
Parcel ratio	r = model / normalized benchmark
Arithmetic mean	Sum of parcel ratios / n
Even-sample median	Average of two middle sorted ratios
Price-weighted mean	Sum model outputs / sum benchmark prices
COD	100 × [sum |r − median| / n] / median
PRD	Mean ratio / price-weighted mean ratio
Signed error	Model − benchmark
MAE	Sum |error| / n
MAPE	100 × mean(|error| / benchmark)
RMSE	Square root of mean(error²)
Time adjustment	Raw price × (1 + monthly trend)^months
Policy assessed value	Market value × stipulated applicable assessment level

Carry unrounded values through calculations. Report ratio or percentage units distinctly from pesos. The small constructed sample does not establish actual municipal performance or a universal acceptance threshold.

23 Sources and preparation status

Research reviewed on 12 October 2026. The dataset, models, explanations, cases, worksheet and questions are original educational work, not actual or recalled PRC items. Selected statistical concepts and enacted Philippine provisions were checked. The exercise targets are supplied teaching screens, not a national standards compliance conclusion.

1 IAAO ratio study concepts

Standard on Ratio Studies approved April 2013. Selected sections 5.3–5.6 and sales-chasing discussion were checked. The publication is used as a dated statistical reference; the technical-standards page also identifies an exposure draft under review.

https://www.iaao.org/wp-content/uploads/Standard_on_Ratio_Studies.pdf

2 IAAO sale evidence

Standard on Verification and Adjustment of Sales revised April 2020. Selected sales-evidence concepts were checked. International guidance does not replace applicable Philippine law or standards.

https://www.iaao.org/wp-content/uploads/Standard_on_Verification_Adjustment_of_Sales.pdf

3 Philippine valuation framework

RA 12001 sections 3 and 13–16 distinguish valuation and tax policy and address standards, market value and SMV processes. No particular LGU approval or tax determination is made here.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

4 BLGF module coverage

Published course outline for Local Assessment Manual Book IV Chapter II identifies mass appraisal, valuation dates, testing, tax-impact study and proposed-SMV review. The complete manual was not obtained; clause-by-clause comparison remains pending.

https://elms.blgf.gov.ph/local/courseinformation/index.php?id=92

REALEX

Lesson 32

Applied Assessment Taxation and Remedies

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Compute valuation amounts, assessed values and each tax component separately. Then identify the dated policy or relief rule and the procedural trigger before determining an adjustment or remedy period.

This lesson develops original residential, commercial and machinery tax cases, provincial and city comparisons, transition-cap and historical amnesty exercises, and notice/payment scenarios. It includes ten worked cases, a two-page worksheet and twenty original questions with explained answers.

Values and applicable local ordinance inputs are supplied teaching assumptions. All cases are fictional; they do not establish an actual LGU bill, exemption or filing entitlement. Calendar exercises state their counting convention and do not replace procedural review of an actual case.

Your learning goals

- Distinguish valuation assessment annual tax and collected balance.
- Separate land building and machinery component calculations.
- Identify classification jurisdiction and local policy inputs.
- Compute basic RPT and SEF without conflating their bases.
- Relate independent machinery conventions to assessment.
- Investigate actual use and exemption evidence.
- Distinguish idle-land and public-works levies.
- Calculate stipulated installments discounts and interest.
- Apply an eligible first-year cap by tax component.
- Analyze a dated historical amnesty case.
- Identify assessment payment-protest and authority disputes.
- Preserve notice payment decision and filing records.

Study plan: Allow five hours in two sessions. Read sections 1–8 for component tax computations, then sections 9–16 for interest, dated relief and remedies. Attempt cases, worksheet and test before checking responses. Prerequisite themes are valuation, land/building assessment and machinery scope.

1 Separate valuation assessment and collection

Applied real property taxation starts with three different questions: what value is established for the defined property, what portion is assessed under the applicable classification and policy, and what tax or levy is imposed on that assessed base. A professional valuation opinion, a tax declaration and a treasurer's collection statement can contain different amounts without being interchangeable documents.

Market value is not the tax itself. Assessed value is the relevant valuation amount multiplied by the applicable assessment level. Each tax component then uses its prescribed base and rate. A receipt may also include arrears, interest or authorized charges, which should be reconciled separately from the current annual principal taxes.

This lesson uses fictional Dalisay City properties, a separate provincial scenario and independent machinery and transition examples. Values, local ordinance levels, levy rates and case eligibility are expressly supplied teaching facts. No exercise determines an actual LGU bill. The legal source checks are dated 12 October 2026; the numerical scenarios identify when a transition or relief rule is assumed to operate.

The Philippine framework must be read as amended. RA 12001 establishes the valuation reform interface, while consistent Local Government Code provisions continue to matter. [1,2] An old schedule, a newly certified SMV and an ordinance changing policy inputs can have different roles and effective dates. Identify the operative record before calculating.

2 Assemble the property and policy record

Prepare a computation record with parcel and building identifiers, location, valuation period, actual-use classification, valuation amounts, assessment levels and tax rates. Add the source and effective date of each policy input. A rate copied from a neighbouring city does not become applicable merely because the properties have similar market values.

Separate land, buildings and machinery where their assessment treatment differs. A residential land percentage does not automatically apply to the residential building. Building levels may depend on the specified value bracket; machinery has a different statutory interface. A single blended percentage can conceal an error in a component even when the combined bill looks plausible.

The original Dalisay residential example supplies land value PHP 2 million and building value PHP 3 million. Applicable hypothetical ordinance levels are 20% for land and 40% for the building. The example is nonexempt, with city basic RPT 2% and SEF 1%. No transition cap, discount, penalty or additional levy changes this initial exercise.

Exercise entry	Stipulated input
Property	Nonexempt residential land and building
Land valuation and AL	PHP 2m and 20%
Building valuation and AL	PHP 3m and 40%
Jurisdiction	Fictional city
Annual basic and SEF	2% and 1% of assessed value
Initial exercise exclusions	No cap discount penalty or additional levy

Check four dates separately: valuation date, assessment or roll effectivity, receipt of a written notice and payment date. A remedy period tied to notice receipt is not automatically measured from the date printed on the document. A protest period tied to payment uses still another trigger. Keep documentary proof of the relevant event.

3 Compute the residential city tax by component

Dalisay land assessed value is PHP 2 million × 20% = PHP 400,000. Building assessed value is PHP 3 million × 40% = PHP 1.2 million. Combined assessed value is PHP 1.6 million. The combined market amount is PHP 5 million, but that amount is not the immediate levy base in this model.

Basic RPT is PHP 1.6 million × 2% = PHP 32,000. SEF is PHP 1.6 million × 1% = PHP 16,000. Combined annual principal tax is PHP 48,000. Show both components before presenting the total; otherwise an incorrect basic rate and an offsetting SEF error could go unnoticed.

Residential component	Valuation PHP	AL	Assessed PHP
Land	2,000,000	20%	400,000
Building	3,000,000	40%	1,200,000
Combined	5,000,000	Component-specific	1,600,000

Annual city levy	Rate	PHP
Basic RPT	2%	32,000
SEF	1%	16,000
Combined principal	Separate components	48,000

Applying a combined 3% directly to the PHP 5 million market amount would produce PHP 150,000 and answer the wrong calculation. Applying the land's 20% assessment level to both components would produce only PHP 1 million assessed value and PHP 30,000 annual principal tax, understating the specified exercise by PHP 18,000.

The supplied levels are compatible with the referenced Code ceilings for these stated classes and value brackets. They are not a declaration that every city adopts the maxima. Actual local inputs and the reform's operative provisions must be established for the property and period concerned. [1,2]

4 Compare jurisdiction and commercial property inputs

A separate provincial exercise keeps the same stipulated PHP 1.6 million assessed value but supplies a 1% provincial basic RPT rate and 1% SEF. Basic tax becomes PHP 16,000 and SEF PHP 16,000, for PHP 32,000 total. The PHP 16,000 difference from the city example arises from the supplied basic rate, not a change in property market value.

The Code distinguishes basic-rate ceilings for provinces and cities or municipalities within Metropolitan Manila. [1] A property in an ordinary municipality within a province should not automatically receive the city maximum. Identify the taxing jurisdiction and the operative ordinance, including any special jurisdictional provisions relevant to the actual property.

The independent Dalisay commercial example supplies land value PHP 4 million at assessment level 50% and building value PHP 6 million at 75%. Assessed amounts are PHP 2 million and PHP 4.5 million, or PHP 6.5 million combined. At the stipulated city rates, basic RPT is PHP 130,000 and SEF PHP 65,000, totalling PHP 195,000.

Do not apply the residential building level to a commercial building merely because both are valued at several million pesos. Investigate actual use and the applicable class, bracket and ordinance. The commercial example is independently stipulated as nonexempt and unaffected by transition relief; it is not added to the residential case's bill.

Independent case	Assessed base PHP	Basic PHP	SEF PHP	Total PHP
Residential city	1,600,000	32,000	16,000	48,000
Residential provincial	1,600,000	16,000	16,000	32,000
Commercial city	6,500,000	130,000	65,000	195,000

5 Connect machinery valuation to assessment

An independent machinery exercise supplies replacement cost PHP 5 million, remaining economic life 12 years and estimated economic life 20 years. Under the expressly stipulated remaining-life calculation, the valuation amount is PHP 5 million × 12/20 = PHP 3 million. This develops the machinery distinction introduced in Lesson 29.

The exercise then supplies nonexempt industrial classification, applicable ordinance assessment level 80%, city basic RPT 2% and SEF 1%. Assessed value is PHP 2.4 million. Basic RPT is PHP 48,000 and SEF PHP 24,000, totalling PHP 72,000. The PHP 3 million valuation amount and PHP 2.4 million assessed amount must retain separate labels.

A separate annual-depreciation example supplies a PHP 5 million base, 18 years of use and the specified maximum simple allowance of 5% per year. The uncapped remaining fraction is 10%, or PHP 500,000. If the machinery is useful and in operation as stipulated, the conditional 20% assessment floor gives PHP 1 million; at 80% the assessed amount is PHP 800,000, and the selected city levies total PHP 24,000.

Independent machinery case	Valuation PHP	Assessed PHP	City levies PHP
Remaining-life 12/20	3,000,000	2,400,000	72,000
Operating floor case	1,000,000	800,000	24,000

Sections 224–225 provide the reference interface, read with the reform and applicable implementing rules. [1–3] The annual ceiling is not an instruction that every professional depreciation rate is exactly 5%. The floor is not a guaranteed market salvage value. Do not apply both independent examples cumulatively to duplicate consumption already recognized.

6 Test exemption and actual use before multiplying

An exemption is a legal conclusion supported by relevant facts and authority, not a convenient choice of a zero rate. Review the ownership or entity status, the actual use, the scope of any statutory exemption and the affected property portions. An institution's name alone does not establish how every building or area is used.

A fictional educational campus has a classroom block and a separately leased commercial kiosk. The lesson supplies no exemption conclusion for either portion. The proper first task is to obtain ownership, occupancy, lease and actual-use evidence and identify the governing exemption rule. A statement that “the owner is a school” is insufficient to settle the full parcel’s treatment.

Likewise, government ownership and private beneficial use require a careful inquiry. The Code’s exemption provisions contain qualifications rather than a universal rule that every government-related property is free of RPT. [1] Do not infer that a privately operated water facility inherits the treatment of a local water district simply because both supply water.

An assessment computation should show whether exemption has been established, remains pending or does not apply under the supplied facts. If the exercise expressly states nonexempt status, use that assumption consistently. If exemption is disputed, preserve the issue and the evidence rather than silently computing an unconditional final liability.

7 Distinguish annual levies from other charges

Basic RPT and SEF are separate annual components. An idle-land levy is another inquiry involving statutory coverage, local imposition and possible exceptions. A vacant site is not automatically subject to the same additional rate everywhere. The teaching exercise below expressly stipulates that its land qualifies and that the applicable ordinance imposes the selected rate.

In that independent case, assessed land value is PHP 800,000, basic city tax 2%, SEF 1% and idle-land tax 2%. The components are PHP 16,000, PHP 8,000 and PHP 16,000, totalling PHP 40,000. The additional idle-land amount is computed on the supplied land base, not automatically on a combined land-and-building value.

The Code also provides a special levy for land specially benefited by local public works, with its own cost-based limit and ordinance process. [1] It must not be confused with SEF or a flat percentage on every property’s market value. If such a levy appears on a statement, trace its governing ordinance, benefited area, apportionment and payment terms.

Taxes on a transfer of ownership are another category. A deed-related tax base does not automatically become the annual RPT base. Reconcile the purpose of each assessment and charge before combining them in a transaction cost schedule. A buyer’s acquisition budget may include several taxes, but their inclusion in one budget does not make their bases identical.

8 Compute installments and a stipulated discount

For the Dalisay residential annual principal tax of PHP 48,000, four equal principal installments are PHP 12,000 each: PHP 8,000 basic and PHP 4,000 SEF. The referenced Code schedule identifies quarter-end payment dates. [1] The installment arithmetic does not eliminate prior arrears or establish that a late installment is still interest-free.

A separate prompt-payment scenario supplies an applicable local ordinance granting 10% discount on both basic RPT and SEF when its payment conditions are met. Discount is PHP 3,200 on basic and PHP 1,600 on SEF, or PHP 4,800 total. Net current payment is PHP 43,200. The exercise assumes no arrears and full compliance with the stipulated qualifying schedule.

The Code authorizes a discount subject to a ceiling; it does not automatically grant the maximum to every taxpayer. [1] Establish the actual ordinance, eligibility date, covered components and payment conditions. A discount applicable only to one levy cannot be applied to the other merely because both appear on the same bill.

Eligible prompt-payment component	Gross PHP	10% discount	Net PHP
Basic RPT	32,000	3,200	28,800
SEF	16,000	1,600	14,400
Combined	48,000	4,800	43,200

Prepare a receipt reconciliation that distinguishes current principal, allowed discount, arrears, interest and final payment. If the owner tenders PHP 12,000, verify how it is allocated rather than assuming it pays the current quarter. The presence of older liabilities can change the application of payments and the outstanding balance.

9 Calculate delinquency interest on the defined balance

An independent case supplies a PHP 12,000 overdue installment and nine chargeable months. At the Code's 2% monthly rate, the restricted simple-interest exercise gives PHP 12,000 × 2% × 9 = PHP 2,160 interest and PHP 14,160 combined principal and interest. No penalty other than the specified interest, partial payment or relief affects the case.

The period rule includes a month or fraction as stated in the Code, and the interest period is capped at 36 months. [1] A separate example with 50 chargeable months on an unchanged PHP 12,000 balance therefore uses 36, giving PHP 8,640 interest and PHP 20,640 total. The maximum modeled interest is 72% of that principal, not 36%.

The nine-month case supplies the period to avoid an unstated calendar convention. In an actual ledger, trace each installment due date, partial payment, applicable interest period and relief event. Do not charge a full year's principal as though every quarterly installment became overdue on the same date without legal support.

Independent interest case	Principal PHP	Months used	Interest PHP	Total PHP
Nine chargeable months	12,000	9	2,160	14,160
Fifty-month input capped	12,000	36	8,640	20,640

Amnesty and interest are distinct. A correctly calculated interest amount can later qualify for relief under a dated lawful rule. Conversely, an owner's expectation that an amnesty might be enacted does not itself erase accrued liabilities or change the date of a required protest.

10 Apply the first year transition cap by tax type

The reform's transition provisions limit increases in the first year of an approved SMV and address each tax type separately. [2,3] This is a cap on the defined tax increase, not a ceiling limiting every increase in market value to 6%. First establish that the approved-SMV transition applies to the supplied assessment period.

The original cap exercise stipulates baseline basic RPT PHP 30,000 and baseline SEF PHP 15,000. The same amounts were assessed both before the Act's effectivity and immediately before the first approved SMV under the Act. Unrestricted new basic RPT is PHP 48,000 and new SEF PHP 24,000. No other adjustment or local cap changes the exercise.

The 6% ceilings are PHP 31,800 for basic and PHP 15,900 for SEF. Both unrestricted new amounts exceed their separate ceilings, so the restricted total is PHP 47,700 rather than PHP 72,000. The baseline total was PHP 45,000; the difference is PHP 2,700. The calculation does not revise the underlying market value to force this amount.

Source wording matters. Act section 29 describes a baseline before the Act, while IRR section 55 describes one before the first SMV under the Act. [2,3] The exercise makes those amounts identical; it does not resolve differing actual baselines. A real case must reconcile the statutory text, implementing guidance and dated record rather than silently substituting one baseline for another.

Eligible first-year case	Baseline PHP	Raw new PHP	6% ceiling	Restricted PHP
Basic RPT	30,000	48,000	31,800	31,800
SEF	15,000	24,000	15,900	15,900
Combined	45,000	72,000	By component	47,700

11 Avoid automatic aggregate or permanent caps

A separate variation retains the same baseline components but supplies unrestricted new basic tax PHP 48,000 and new SEF PHP 14,000. Basic is limited to PHP 31,800; SEF remains PHP 14,000 because it is already below its applicable ceiling. The resulting total is PHP 45,800.

Applying 6% to the aggregate baseline and treating PHP 47,700 as an automatic payable amount would overstate this variation by PHP 1,900. A ceiling is a maximum, not an instruction to increase a component that decreased. Keep each original component, new amount and applicable limit visible.

Do not treat the first-year rule as a perpetual national 6% limitation. Subsequent-year caps may be addressed by an applicable local ordinance. [2,3] A second-year teaching scenario would need to state that ordinance's rate, baseline, coverage and eligibility before computation. The first-year arithmetic alone does not establish them.

A notice may show the unrestricted valuation and assessed-value changes alongside a capped collectible amount. Record both stages and explain the transition adjustment. Without that trail, a reader could mistake the capped payment for evidence that the assessor applied a lower market value or a different assessment level.

12 Apply amnesty only to a dated eligible case

RA 12001's amnesty covers specified accessories on eligible unpaid real property taxes; it is not a general cancellation of principal. The filed IRR identifies the Act's July 5, 2024 effectivity and states the two-year relief period ending July 5, 2026, subject to its period-computation provision. [2,3] A current claim requires checking the operative law, timing and exclusions rather than assuming the original window remains open indefinitely.

The historical exercise is dated 15 June 2026. It stipulates that all affected liabilities predate the Act, the claim qualifies, the principal is PHP 80,000 and eligible penalties, surcharges and interest total PHP 24,000. No exclusion or other charge applies. One-time qualifying payment under the supplied relief is PHP 80,000, while the PHP 24,000 accessories are relieved.

The case expressly excludes properties disposed of at delinquency auction, liabilities being paid under a compromise agreement and pending court cases for RPT delinquency. Those are important statutory

exclusions. [2,3] Do not infer eligibility merely because a property has unpaid taxes. The treasurer's verified ledger and case status matter.

Eligible historical case 15 June 2026	PHP
Principal remains payable	80,000
Eligible accessories relieved	24,000
Qualifying one-time payment	80,000

The June example is safely within the stated window and does not depend on whether its final nominal day requires a working-day adjustment. It is not an invitation to claim the original amnesty in October 2026 without a separate current legal basis. Record the relief instrument, qualifying dates, covered balance and payment evidence.

13 Identify the dispute before selecting a remedy

Ask what the owner is actually challenging: an excessive value or incorrect factual classification, the amount collected, an ordinance's validity, or the taxing authority's legal power. Different allegations can require different routes. Calling every objection an "appeal" conceals the statutory trigger and the proper recipient.

Section 226 identifies an assessment appeal to the LBAA within 60 days from receipt of the written assessment notice, using a sworn petition and supporting documents. Section 252 addresses payment under protest: pay, annotate the receipt and file the written protest with the proper treasurer within 30 days from payment; the treasurer has a 60-day decision period. [1] Preserve all relevant clocks and procedural requirements.

The Supreme Court's NFA v City Government of Tagum decision distinguishes a challenge to the very taxing power from ordinary correctness disputes and recognizes a judicial route in its case. [4] Do not read that decision as permission for every dissatisfied taxpayer to bypass payment, administrative remedies or jurisdictional requirements.

A factual floor-area dispute is different from a properly established pure legal challenge to taxing authority. Mixed factual and legal allegations require careful analysis. This lesson teaches route identification and statutory period arithmetic; an actual petition requires legal review of facts, forum, procedural rules and controlling decisions.

14 Preserve receipt payment and appeal dates

A fictional taxpayer receives a written assessment notice on 3 August 2026. Under the expressly stipulated 60-calendar-day exercise, excluding the triggering day and including the final day, the nominal end date is 2 October 2026. The case assumes no extension, non-working-day adjustment or dispute about receipt. This calendar answer does not by itself confirm that every procedural prerequisite is satisfied.

A separate taxpayer pays under protest on 15 September 2026. The corresponding 30-day written-protest clock has nominal end date 15 October 2026 under the same supplied counting convention. If the proper treasurer receives the written protest on 15 October, its 60-day decision period has nominal end date 14 December 2026. These are independent triggers, not one interchangeable 60-day rule.

An independent LBAA decision received on 5 October 2026 produces a nominal 30-day CBAA appeal end date of 4 November 2026. Section 229 supplies that administrative appeal period. [1] Do not equate it with a deadline for every possible subsequent judicial proceeding. The route and current rules must be established separately.

The reform IRR refers to computation rules and working-day adjustments for periods within its scope. [3] The exercises choose dates and stipulate away calendar adjustments; actual filing must check the rule governing that proceeding, service method, holidays, local closures and any applicable extension. A request for informal reconsideration must not be assumed to stop a statutory clock without authority.

Stage and trigger	Period	Nominal exercise end
Assessment notice received 3 Aug 2026	60 days	2 Oct 2026
Protest payment 15 Sep 2026	30 days	15 Oct 2026
Treasurer protest receipt 15 Oct 2026	60 days	14 Dec 2026
LBAA decision received 5 Oct 2026	30 days	4 Nov 2026

15 Reconcile payment protest and refund records

The Code states that an assessment appeal does not itself suspend tax collection. It also addresses refund or credit following a favourable protest and a separate claim for excessive collections after reduction or adjustment. [1] Do not conclude that lodging an objection eliminates the payment obligation or that a favourable valuation report automatically causes a refund.

A fictional record shows payment of PHP 48,000 and a final authorized adjustment establishing PHP 39,000 for the same covered components and period. The arithmetic excess is PHP 9,000. The next task is to identify the applicable refund or credit process and its documents and timing; the subtraction alone does not establish that a claim has been filed or allowed.

Retain assessment notices and proof of receipt, computation schedules, paid-under-protest receipts, written submissions, filing acknowledgments, decisions and ledger adjustments. Distinguish the assessed dispute from the paid amount and the portion protested. A taxpayer may challenge only one component rather than the entire annual bill.

A case chronology should identify each actor and action, the statutory source, trigger date, nominal period and proof. If a document is missing, flag the resulting uncertainty instead of inventing a receipt date. Keep legal status and arithmetic status separate so that an accurate amount is not presented as a completed remedy.

16 Audit the output before communicating it

The residential city case yields PHP 1.6 million assessed value and PHP 48,000 annual principal tax; its independent provincial version yields PHP 32,000. The commercial example yields PHP 195,000. The machinery life-ratio example yields PHP 72,000. These are different stipulated scenarios and should not be aggregated into one owner's actual bill.

Check the property and period, classification, component values, assessment levels, jurisdiction, levy rates and exclusions. Then test whether a transition cap, discount, interest rule or relief provision applies. A computation that skips eligibility can be numerically exact and legally wrong. State what is supplied and what is established from operative records.

For a remedy scenario, identify the issue and source before calculating a date. Show the trigger, count, recipient and required evidence. A correct nominal end date does not authorize a filing in the wrong forum or excuse a missing procedural step. Preserve the record for the legal reviewer rather than claiming to have completed an actual litigation assessment.

Lesson 33 moves to GIS, survey plotting and spatial data. Those tools support property identification and area evidence, which can materially affect classification, component valuation and disputes. Accurate mapping and disciplined tax computation reinforce each other when both use the same defined property record.

17 Ten worked assessment and tax cases

Attempt each question before reading the solution. Applicable policy inputs, eligibility and calendar conventions are stipulated. Preserve each calculation base and procedural trigger; these cases do not determine an actual filing entitlement.

Case 1 Compute residential city principal tax

Question: Nonexempt land value PHP 2m at 20% and building PHP 3m at 40%. Applicable city basic rate 2%, SEF 1%. No cap, discount or additional levy.

Solution: Land assessed 0.4m; building 1.2m; total 1.6m. Basic PHP 32,000; SEF PHP 16,000; annual principal PHP 48,000.

Reasoning: Each component uses its specified assessment level before the levies. A combined 3% applied directly to market value uses the wrong base.

Case 2 Compare the provincial rate

Question: An independent provincial exercise has assessed value PHP 1.6m, applicable basic rate 1% and SEF 1%. All other adjustments are excluded.

Solution: Basic PHP 16,000; SEF PHP 16,000; total PHP 32,000.

Reasoning: Jurisdiction and the supplied ordinance rate change the basic tax. The assessed base remains the same as stipulated.

Case 3 Assess the commercial components

Question: Commercial land value 4m at 50%; building 6m at 75%; nonexempt city property, basic 2% and SEF 1%, no other adjustment.

Solution: Assessed land 2m plus building 4.5m = 6.5m. Basic PHP 130,000; SEF PHP 65,000; total PHP 195,000.

Reasoning: The commercial building level is specified for this case. Do not import the residential level or apply a land level to every asset.

Case 4 Compute machinery valuation assessment and tax

Question: Independent remaining-life exercise: replacement 5m, remaining life 12, estimated life 20. Nonexempt industrial machinery at applicable AL 80%, basic 2%, SEF 1%.

Solution: Valuation 5m × 12/20 = 3m; assessed 2.4m; basic PHP 48,000; SEF PHP 24,000; total PHP 72,000.

Reasoning: Valuation amount and assessed value are different stages. The independent annual-depreciation example is not applied again.

Case 5 Apply the local discount

Question: Residential principal basic PHP 32,000 and SEF PHP 16,000. Applicable ordinance discounts both by 10%; all eligibility conditions are met and no arrears.

Solution: Discounts PHP 3,200 and PHP 1,600; total PHP 4,800. Net payment PHP 43,200.

Reasoning: The local benefit and covered components are supplied. The statutory ceiling does not automatically grant a particular discount.

Case 6 Compute defined delinquency interest

Question: A PHP 12,000 overdue balance has nine chargeable months, simple interest 2% per month. Separately test the unchanged balance with 50 chargeable months and the 36-month cap.

Solution: Nine-month interest PHP 2,160; total PHP 14,160. Capped 50-month illustration uses 36 months: interest PHP 8,640; total PHP 20,640.

Reasoning: The exercise supplies the chargeable periods. Partial payments or relief would require a revised balance and period analysis.

Case 7 Apply the cap by component

Question: Applicable first-approved-SMV transition case. Basic baseline PHP 30,000 and SEF PHP 15,000 are identical at both cited baseline dates. New raw amounts 48,000 and 24,000.

Solution: Basic ceiling 30,000 × 1.06 = 31,800; SEF ceiling 15,000 × 1.06 = 15,900. Restricted total PHP 47,700.

Reasoning: Use separate tax components. The exercise does not resolve differing actual Act/IRR baseline records or apply the first-year rule perpetually.

Case 8 Calculate historical eligible relief

Question: On 15 June 2026, an eligible one-time amnesty payment concerns pre-Act principal PHP 80,000 and eligible accessories PHP 24,000. No auction, compromise or pending-court exclusion applies.

Solution: Qualifying principal payment PHP 80,000; relieved accessories PHP 24,000.

Reasoning: The dated case stipulates eligibility. Amnesty is not a cancellation of principal or proof that the original relief remains available in October 2026.

Case 9 Keep the clocks separate

Question: Use the supplied calendar convention: exclude trigger day, include final day, no holiday/closure adjustments. Notice received 3 Aug 2026, period 60 days. Payment 15 Sep, protest period 30 days. LBAA decision received 5 Oct, CBAA period 30 days.

Solution: Nominal ends: 2 Oct 2026; 15 Oct 2026; 4 Nov 2026 respectively.

Reasoning: Receipt of assessment, payment and receipt of decision are distinct triggers. Calendar arithmetic does not establish that procedural prerequisites or the chosen route are satisfied.

Case 10 Identify the nature of the dispute

Question: Owner A disputes excessive recorded floor area. Owner B presents a properly established pure legal challenge to the authority to impose and collect RPT. Is one automatic route appropriate for both?

Solution: No. A concerns factual assessment correctness and requires the relevant administrative/payment-protest framework. B requires evaluation of the judicial route recognized for authority challenges.

Reasoning: NFA v Tagum supports the distinction in its facts. It is not a blanket exemption from procedural requirements for any taxpayer alleging unfairness.

18 Assessment and tax worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Residential component calculation

Rebuild the land and building assessed values and the basic/SEF amounts. Compare the correct result with applying land AL 20% to both assets. Explain the error.

_____

_____

_____

2 Jurisdiction commercial and machinery

Compute the provincial residential total, the separate commercial city total and the independent remaining-life machinery total. Keep the three cases separate.

_____

_____

_____

3 Installment discount and idle levy

Split the residential principal into four equal installments. Apply the stipulated 10% discount to both annual components. Separately compute idle-land components on assessed land 0.8m at basic 2%, SEF 1% and stipulated idle rate 2%.

_____

_____

_____

4 Delinquency and machinery floor

Compute interest on PHP 12,000 for nine chargeable months and for a supplied 50-month period capped at 36. Independently apply a 20% useful-and-operating floor to machinery base 5m after 18 years at specified simple 5% allowance; then AL 80% and city levies.

_____

_____

_____

Assessment and tax worksheet continued

5 Transition cap and decreased component

Use equal baseline-date basic 30,000 and SEF 15,000. Compute the capped total for raw 48,000/24,000, then the variation 48,000/14,000. Explain the source-baseline qualification and why the cap is not permanent.

_____

_____

_____

6 Historical amnesty and exemption evidence

For the eligible 15 June 2026 case, show principal 80,000, accessories 24,000 and qualifying payment. Identify exclusions and evidence needed for a separate educational-campus exemption inquiry.

_____

_____

_____

7 Remedy calendar

Apply the supplied no-adjustment convention to assessment notice 3 Aug plus 60 days, payment 15 Sep plus 30 days, treasurer receipt 15 Oct plus 60 days and LBAA decision receipt 5 Oct plus 30 days. State each trigger and recipient.

_____

_____

_____

8 Route and records

Distinguish excessive floor area from a pure taxing-power challenge. Explain collection during appeal. Calculate excess from paid 48,000 and finally authorized liability 39,000, then identify the records needed for the applicable refund/credit process.

_____

_____

_____

19 Review and examination checks

Distinction	Examination check
Market and assessed value	Assessment level applied before the levy
Land and building	Separate component levels used
City and province	Jurisdiction and applicable rate established
Ceiling and ordinance	Maximum does not prove adopted local input
Machinery valuation and assessment	Independent conventions not compounded
Entity and actual use	Exemption requires evidence and authority
SEF and idle levy	Separate bases coverage and rates
Current and arrears	Receipt allocation traced to period
Discount and automatic relief	Eligibility and components specified
Interest and principal	Defined balance months and 36-month cap
Cap and market value	Tax ceiling does not cap every valuation change
Act and IRR baseline	Dated record and text read together
Amnesty and principal	Eligible accessories distinguished from principal
Notice payment and decision	Each remedy clock has its own trigger
Correctness and taxing power	Nature of issue determines route analysis

Explain the computation and procedural chain

Identify property and period; establish valuation classification and local inputs; calculate each assessed component and levy; apply only eligible adjustments; reconcile payment records; and identify the issue, trigger and required procedure before giving a remedy date.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. The correct basic chain in a stipulated RPT computation is:

A. Annual tax × market price

B. Market value × levy rate without assessment

C. Relevant valuation × assessment level, then assessed base × levy rate

D. Assessment level × interest period only

2. Residential land 2m at 20% gives assessed value:

A. PHP 40,000

B. PHP 2m

C. PHP 400,000

D. PHP 1.6m

3. Building 3m at supplied AL 40% plus assessed land 0.4m gives combined assessed value:

A. PHP 1.6m

B. PHP 5m

C. PHP 1m

D. PHP 3.4m

4. On assessed value 1.6m, city basic 2% and SEF 1% give:

A. PHP 48,000 basic and zero SEF

B. PHP 32,000 basic and PHP 16,000 SEF

C. PHP 150,000 total

D. PHP 16,000 basic and PHP 32,000 SEF

5. Independent provincial case assessed 1.6m, basic 1%, SEF 1%, gives total:

A. PHP 96,000

B. PHP 48,000

C. PHP 16,000

D. PHP 32,000

6. Commercial land 4m at 50% and building 6m at 75% give assessed total:

A. PHP 7.5m

B. PHP 10m

C. PHP 5m

D. PHP 6.5m

7. Independent machinery remaining-life convention 5m ×12/20 gives:

A. PHP 3m valuation amount

B. PHP 2.4m valuation amount

C. PHP 5m assessed value automatically

D. PHP 0.3m

8. Machinery valuation 3m at AL 80%, then basic 2% and SEF 1%, gives total:

A. PHP 24,000

B. PHP 90,000

C. PHP 60,000

D. PHP 72,000

9. A conditional 20% floor on useful operating machinery base 5m produces:

A. A guaranteed PHP 1m market scrap price

B. PHP 1m under the stated assessment convention

C. PHP 0.5m after the floor

D. A universal professional annual rate

10. A school owner claims exemption for a classroom and a commercial kiosk. The first task is to:

A. Exempt everything based solely on the owner’s name

B. Investigate property portions, actual use and legal authority

C. Treat all institutional property as machinery

D. Ignore the kiosk lease

11. A qualifying local 10% discount covers annual basic 32,000 and SEF 16,000. Net payment is:

A. PHP 48,000

B. PHP 43,200

C. PHP 38,400

D. PHP 4,800

12. Twelve thousand pesos overdue for nine supplied chargeable months at 2% simple monthly interest yields interest:

A. PHP 2,160

B. PHP 216

C. PHP 14,160

D. PHP 8,640

13. The unchanged 12,000 balance has 50 supplied chargeable months but a 36-month interest cap. Interest is:

A. PHP 8,640

B. PHP 12,000

C. PHP 4,320

D. PHP 20,640 interest alone

14. First-year cap case has equal baseline-date basic 30,000 and SEF 15,000, raw new amounts 48,000 and 24,000. Restricted total is:

A. PHP 45,000

B. PHP 72,000

C. PHP 47,700

D. PHP 2,700 total tax

15. Same cap case, but raw new SEF decreases to 14,000. Restricted total becomes:

A. PHP 45,800

B. PHP 47,700 automatically

C. PHP 62,000

D. PHP 31,800 total

16. Eligible 15 June 2026 historical amnesty case has principal 80,000 and eligible accessories 24,000. Qualifying one-time payment is:

A. Zero principal

B. PHP 80,000

C. PHP 24,000

D. PHP 104,000 with no relief

17. The section 226 statutory clock is tied to:

A. The last installment payment automatically

B. The appraiser's inspection date only

C. The date of every sale

D. Receipt of the written assessment notice

18. Payment under protest on 15 Sep 2026 and a supplied 30-calendar-day no-adjustment convention give nominal protest end:

A. 15 Sep 2026

B. 14 Nov 2026

C. 15 Oct 2026

D. 4 Nov 2026

19. An assessment appeal, by itself, generally:

A. Makes every payment optional

B. Automatically cancels all interest

C. Does not suspend collection under the referenced Code rule

D. Converts the tax into a valuation fee

20. NFA v Tagum should be understood as:

A. Replacing every deadline with 30 days

B. Allowing every value objection to skip all administrative requirements

C. Establishing a universal exemption for private property

D. Recognizing the distinction between a taxing-power challenge and ordinary correctness disputes

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	B
2	C	12	A
3	A	13	A
4	B	14	C
5	D	15	A
6	D	16	B
7	A	17	D
8	D	18	C
9	B	19	C
10	B	20	D

1. C The valuation, assessed amount and levy are distinct stages.

2. C 2m ×0.20 =0.4m.

3. A Building assessed 1.2m plus land 0.4m =1.6m.

4. B Each supplied rate applies to the assessed base; total is 48,000.

5. D 16,000 basic plus 16,000 SEF =32,000.

6. D 2m plus 4.5m =6.5m.

7. A The fraction yields 3m before the separately supplied assessment level.

8. D Assessed value 2.4m; basic 48,000 and SEF 24,000.

9. B The specified operating condition triggers the statutory assessment floor; it is not a universal market-price guarantee.

10. B Exemption requires evidence and the governing rule; the institution label alone does not establish every portion’s treatment.

Answer explanations continued

11. B Combined discount 4,800; 48,000 −4,800 =43,200.
12. A 12,000 ×0.02 ×9 =2,160.
13. A 12,000 ×0.02 ×36 =8,640; total including principal is 20,640.
14. C Separate ceilings 31,800 and 15,900 total 47,700 under the stipulated eligible case.
15. A Basic is capped at 31,800 while SEF remains 14,000. A ceiling does not raise a decreased component.
16. B The stipulated relief covers eligible accessories rather than cancellation of principal.
17. D The section identifies a 60-day period from written-notice receipt; procedural prerequisites also require review.
18. C Exclude the trigger day and add 30 days under the specified exercise convention.
19. C Section 231 separates collection from later adjustment based on the appeal outcome.
20. D The judicial-route distinction follows the case and issue, not a blanket bypass for any dissatisfied taxpayer.

Worksheet model responses

Response 1

Land 2m ×20% = 0.4m; building 3m ×40% = 1.2m; assessed total 1.6m. Basic 32,000 and SEF 16,000 total 48,000. Applying 20% to both gives assessed 1m and tax 30,000, understating the specified result by PHP 18,000.

Response 2

Provincial assessed 1.6m at 1% basic and 1% SEF gives 16,000 +16,000 =32,000. Commercial assessed 4m ×50% +6m ×75% =6.5m; levies total 195,000. Machinery valuation 5m ×12/20 =3m; assessed 2.4m; selected city levies 72,000. These are independent cases.

Response 3

Quarterly principal basic 8,000 plus SEF 4,000 =12,000. Eligible annual discounts 3,200 +1,600 =4,800; net 43,200. Independent idle-land case: basic 16,000, SEF 8,000, idle 16,000; total 40,000. Verify eligibility, ordinance and covered components in an actual bill.

Response 4

Nine-month interest 12,000 ×2% ×9 =2,160; total 14,160. Fifty-month scenario uses 36 months, interest 8,640; total 20,640. Independent machinery uncapped remainder 0.5m rises to conditional floor 1m; assessed 0.8m; basic 16,000 and SEF 8,000, total 24,000. Do not combine the two machinery valuation conventions.

Response 5

Ceilings 31,800 basic and 15,900 SEF. First raw pair yields total 47,700; second yields 31,800 +14,000 =45,800. The case uses equal Act/IRR baseline-date amounts; actual differing baselines need legal and record review. First-year relief does not establish a continuing national cap.

Response 6

Qualifying June principal payment 80,000; eligible accessories 24,000 relieved. Exclusions include delinquency-auction disposal, compromise-payment cases and pending court cases for RPT delinquency. For campus treatment obtain title/entity records, actual-use evidence, leases and the applicable exemption authority; the school name alone does not settle every portion.

Response 7

Section 226 nominal notice clock ends 2 Oct; Section 252 nominal written-protest clock ends 15 Oct. Treasurer decision period from written-protest receipt 15 Oct nominally ends 14 Dec. CBAA appeal from LBAA decision receipt 5 Oct nominally ends 4 Nov. Recipients/stages differ; actual service, rules and calendar adjustments require review.

Response 8

Floor-area correctness concerns the administrative/payment-protest framework; a genuine legal challenge to taxing power requires the appropriate judicial-route analysis under controlling authority. An assessment appeal alone does not suspend collection. Arithmetic excess 9,000 requires the applicable refund/credit route, final decision, receipt, ledger and filing evidence.

22 Essential terms and calculation review

Assessment level Applicable percentage converting valuation to assessed value.

Assessed value Valuation amount multiplied by the applicable assessment level.

Basic RPT Annual real property tax under the applicable jurisdictional rate.

SEF Separately imposed Special Education Fund levy.

Idle-land levy Additional land levy requiring coverage and applicable imposition.

Discount Conditional reduction under the applicable local rule.

Delinquency interest Interest on the defined overdue balance and chargeable period.

Transition cap Eligible limitation on a tax increase for a defined period.

Amnesty Dated relief for covered liabilities or accessories under its terms.

LBAA Local Board of Assessment Appeals.

CBAA Central Board of Assessment Appeals.

Payment under protest Payment and documented objection under the relevant procedure.

Restricted teaching relationship	Formula or result
Component assessment	Valuation × applicable assessment level
Annual basic or SEF	Assessed base × each applicable levy rate
Four equal principal installments	Annual covered principal / 4
Eligible discount	Covered principal × stipulated discount
Net discounted payment	Covered principal − allowed discount
Defined interest	Overdue balance × 2% × min(months,36)
First-year eligible component cap	Lower of raw new tax and baseline ×1.06
Historical eligible relief	Principal remains; covered accessories relieved
Nominal clock exercise	Trigger date + supplied days; actual rules separately checked
Authorized collection adjustment	Paid covered amount − finally adjusted covered liability

The component-cap formula assumes the positive baseline and eligibility supplied in the exercise. It does not resolve differing actual baseline records. Calendar formulas identify nominal exercise dates rather than replacing service, filing and holiday rules.

23 Sources and preparation status

Research reviewed on 12 October 2026. Cases, calculations, worksheet and questions are original educational work, not actual or recalled PRC items. Local inputs and eligibility are stipulated. Nominal dates were verified arithmetically; actual remedy selection and filing require legal review of the record and controlling rules.

1 Local Government Code

RA 7160, selected sections 217–218, 223–226, 229, 231, 233–236 and 250–255. Read with later amendments, operative local inputs and controlling procedure.

https://www.lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

2 Valuation reform statute

RA 12001, particularly sections 29–30 on transition and amnesty, and the consistent-law interface. The exercise stipulates equal baseline-date amounts and historical eligibility.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

3 Filed implementing rules

IRR issued 10 December 2024, filed with ONAR 16 January 2025, registration 25-0077. Selected sections 55–56 and 62–63 on printed pages 25–27 were visually checked in the filed PDF. Full assignment compliance is not certified.

https://naro.law.upd.edu.ph/issuances/7104

4 Taxing authority and remedy distinction

NFA v City Government of Tagum, G.R. 261472, 21 May 2024. Selected discussion of correctness disputes and challenges to taxing authority was checked in the decision; apply its holding to the particular issue and facts.

https://lawphil.net/judjuris/juri2024/may2024/gr_261472_2024.html

REALEX

Lesson 33

GIS Survey Plotting and Spatial Data

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Read spatial evidence through its coordinate reference, units, source and purpose. Compute a parcel's geometry, check closure and distinguish map-based screening from legally established boundaries and use restrictions.

This lesson develops original local coordinates and three newly plotted figures, area and bearing calculations, synthetic overlapping layers, join exceptions and uncertainty examples. It includes ten worked cases, a two-page worksheet and twenty original questions with explained answers.

All parcel geometry and financial inputs are fictional teaching assumptions. The local metre frame has no geographic or cadastral location. The synthetic hazard and corridor layers are not actual government classifications or statutory easements, and no figure constitutes an approved survey plan.

Your learning goals

- Define what the spatial evidence must answer.
- Read scale orientation bearings and coordinate units.
- Distinguish geographic projected and local frames.
- Explain reference assignment and supported transformation.
- Plot an original parcel in the stated vertex order.
- Compute coordinate increments length perimeter and area.
- Cross-check area with geometry and shoelace arithmetic.
- Evaluate closure against a supplied teaching target.
- Inspect layer metadata geometry and topology.
- Audit joins duplicate records and missing matches.
- Calculate overlay coverage without repeated shared area.
- Report positional uncertainty and evidential limitations.

Study plan: Allow five hours in two sessions. Read sections 1–8 for coordinates and calculations, then sections 9–16 for GIS layers, joins, overlays and evidence quality. Use the three original figures before attempting cases, worksheet and test. Prerequisite themes are property identification and physical site evidence.

1 Define the spatial evidence question

GIS combines locations, geometries and descriptive records so that property evidence can be examined spatially. It can help identify a parcel, compare access, inspect neighbourhood patterns and screen mapped hazards. A map is an analytical representation of evidence; it does not by itself establish title, a surveyed boundary or a lawful building envelope.

Begin with the decision. Locating a property for inspection is different from calculating its area, confirming its legal access or determining the scope of an easement. A road visible on imagery may help navigation but does not prove a registered right of passage. A hazard polygon can indicate a need for investigation without defining the exact effect on a particular building.

This lesson develops the fictional Talisay parcel P-001 in an expressly defined local planar coordinate frame. East is the positive horizontal axis and north the positive vertical axis, both in metres. The coordinates are original teaching inputs and have no claimed geographic location, cadastral approval or PRS92 connection. Every diagram is newly plotted from these inputs.

The main polygon has ordered vertices A(0,0), B(40,0), C(40,20), D(25,35) and E(0,35), returning to A. Its area, perimeter and clipped overlay areas are exact results within this mathematical model. Their precision does not certify the measurement accuracy of any actual Philippine property.

2 Read map scale orientation and units

A representative fraction of 1:1,000 means one unit on the correctly sized map represents 1,000 of the same units on the ground. One centimetre therefore represents 10 metres. A line measuring 4 centimetres on that map represents 40 metres. At 1:2,000 the same ground distance occupies only 2 centimetres.

Large scale means a smaller denominator and generally a more detailed portrayal. A 1:1,000 parcel plan is larger scale than a 1:50,000 regional map. Enlarging a screenshot makes its pixels bigger; it does not add survey observations or improve the accuracy of the source geometry.

A scale bar remains useful when the whole map image is resized uniformly with the bar. A printed representative fraction becomes wrong if the drawing is printed at another size. Always check the final output, preserve the bar with the map and avoid measuring from a screenshot whose resizing history is unknown.

An orientation arrow must state the relevant north reference. The Talisay drawings use the local north axis, not an independently established true, grid or magnetic north. For actual survey records, inspect the bearing reference, units and control information rather than assuming every upward arrow has the same meaning.

3 Distinguish coordinates datum and projection

Coordinates are numbers with a reference definition. Geographic coordinates ordinarily use angular latitude and longitude; projected coordinates commonly use linear units. A pair of numbers labelled “X” and “Y” is incomplete unless the axes, units, CRS and relevant datum are known. A calculation treating degrees as metres produces a meaningless parcel area.

The selected QGIS reference explains how CRS definitions relate map coordinates to geographic locations and why projection choice matters to the analysis. [1] For actual work, record the full source CRS, datum, coordinate order, zone where applicable and measurement method. A projected map is not automatically free from distortion merely because its coordinates are in metres.

The fictional frame in this lesson is local planar geometry only. It is suitable for checking the stated arithmetic but cannot be combined directly with an actual geographic hazard layer. A supported transformation or

georeferencing relationship would be needed before any real spatial comparison. An arbitrary EPSG label cannot supply that missing relationship.

Reference question	What to establish
Axes and order	East/north or longitude/latitude as actually supplied
Units	Linear metres angular degrees or other declared units
Datum and CRS	Full supported source definition and relevant zone
Display reference	Project view separate from source-coordinate meaning
Measurement	Planar or geodetic method and appropriate settings
Local exercise	No Earth position inferred from these fictional coordinates

NAMRIA's reference-system material provides Philippine context for PRS92 and control-based spatial integration. [4] Actual records should be checked for their specified reference and current applicable requirements. This lesson does not assert that an unidentified legacy survey, phone position or newly digitized sketch already conforms to a national geodetic framework.

4 Assign a reference correctly before transforming

Assigning a CRS tells software how to interpret existing coordinate numbers. Transforming or reprojecting uses a relationship to express positions in another reference system. These operations have different purposes. Selecting a convenient CRS label for unknown coordinates can move a layer to a plausible-looking location while leaving its interpretation unsupported.

The checked QGIS projection guidance distinguishes a layer's coordinate interpretation from the project display reference. [1] On-the-fly display can overlay properly identified sources in a common map view, but it cannot identify an unknown datum or correct an incorrectly assigned reference. Investigate source metadata and control before deciding what to assign.

A fictional imported table reverses its east and north fields. For vertex B, the intended values are E=40, N=0; swapping them plots E=0, N=40. The numbers remain valid numbers but the parcel is misplaced or reoriented. Confirm coordinate order through known reference points and the source specification.

Record both source and output definitions when a transformation is used, including the transformation method and its limitations. Display alignment with imagery is a useful check, not sufficient proof of cadastral accuracy. A basemap can itself have positional offsets or a different observation date.

5 Construct the original parcel from ordered vertices

Plot A through E in the stated order and return to A. The polygon forms a 40-by-35-metre bounding rectangle with its northeast corner cut by the line from C to D. The ordered sequence matters: connecting the same points in another order can produce a self-crossing or a different polygon.

A to B is 40 metres due east. B to C is 20 metres due north. C to D moves 15 metres west and 15 metres north. D to E is 25 metres due west and E to A is 35 metres due south. East increments sum to 40 + 0 − 15 − 25 + 0 = 0; north increments sum to 0 + 20 + 15 + 0 − 35 = 0.

The C–D length is √(15² + 15²) = 21.213203 metres. The perimeter is 40 + 20 + 21.213203 + 25 + 35 = 141.213203 metres. The AB frontage is 40 metres in the drawing; the model does not establish that AB is the actual legal road frontage of a real site.

The closing point should be represented consistently. Some file structures close a polygon ring automatically; coordinate schedules often repeat the first vertex at the end. Either way, verify the last-to-first segment rather than accidentally leaving the parcel open or inserting an unintended diagonal.

6 Convert bearings to coordinate increments

A whole-circle azimuth is measured clockwise from the stated north reference in this lesson: north 0°, east 90°, south 180° and west 270°. A quadrant bearing identifies an angle from north or south toward east or west. For C–D, the quadrant bearing is N45°W, equivalent to azimuth 315° in the local frame.

For an azimuth θ and horizontal length L, the defined increments are ΔE = L sin θ and ΔN = L cos θ. Correct signs matter. C–D has length 21.213203 and azimuth 315°, giving ΔE = −15 and ΔN = +15. Using cosine for east without changing the angle convention would produce incorrect directions.

A separate leg of 20 metres at N30°E has azimuth 30°. Its increments are east 10 metres and north 17.320508 metres. Starting at A(0,0), its endpoint is (10,17.320508). It is an independent bearing exercise, not an extra side to insert into the five-vertex Talisay parcel.

Keep degrees, minutes and seconds consistent. For example, 14°30′ is 14.5°, not 14.30°. Confirm calculator angle mode before trigonometric work. Where field lengths or bearings involve slope, grid-to-ground or other survey reductions, obtain the proper technical treatment rather than assuming the simplified horizontal-plane exercise addresses them.

7 Calculate area through two independent methods

Talisay’s bounding rectangle is 40 × 35 = 1,400 square metres. The missing northeast triangle has base 15 metres and height 15 metres, so its area is 112.5 square metres. The parcel area is 1,400 − 112.5 = 1,287.5 square metres, or 0.12875 hectare.

The coordinate method uses the shoelace relationship: one-half the absolute difference between the cyclic sum of each east coordinate multiplied by the next north coordinate and the reverse cyclic sum. For A-B-C-D-E-A, the forward sum is 3,075 and the reverse sum is 500, giving |3,075 − 500|/2 = 1,287.5 square metres.

The two methods agree because they analyze the same simple polygon and units. They provide an arithmetic cross-check, not independent field verification. If every point has been copied from the same inaccurate source, both methods can reproduce the same inaccurate result exactly.

Original area check	Defined arithmetic	sqm
Bounding rectangle	40 ×35	1,400.0
Missing triangle	15 ×15 /2	112.5
Rectangle less triangle	1,400 −112.5	1,287.5
Coordinate shoelace	|3,075 −500| /2	1,287.5

A rectangle approximation using the full bounding area would overstate this model by 112.5 square metres, about 8.7379% of the true model area. The percentage denominator must be stated. Dividing the difference by

1,400 instead would give a different percentage describing the reduction from the rectangle rather than the overstatement relative to the parcel.

8 Test closure without claiming survey acceptance

A traverse closure check tests whether the accumulated increments return to the starting point. The main Talisay increments close exactly by construction. Exact arithmetic closure does not prove that the vertices are correctly located, the observations are accurate or the boundary is legally established. A displaced but internally consistent polygon can also close.

An independent field-style exercise supplies total traverse length 100 metres, accumulated east error +0.03 metre and north error −0.04 metre. Linear misclosure is $\sqrt{(0.03^2 + 0.04^2)} = 0.05$ metre. Relative closure is 100/0.05 = 2,000, conventionally expressed as 1:2,000.

A stipulated teaching acceptance target is 1:5,000 or better. The 1:2,000 exercise does not meet that target. The target is supplied for learning and is not presented as the current legal tolerance for any Philippine survey class. Actual acceptance depends on the governing specifications, survey type, observation methods and technical review.

A proportional closure-distribution illustration for a 20-metre leg in the 100-metre traverse gives east correction −0.03 × 20/100 = −0.006 metre and north correction +0.04 × 20/100 = +0.008 metre. This illustrates a Bowditch-style proportional correction, subject to its assumptions. It is not permission to repair unsupported observations or move legal boundary corners without proper survey authority.

Independent traverse check	Result
Total length	100m
Closure increments	+0.03m east and −0.04m north
Linear error	0.05m
Relative closure	1:2,000
Stipulated exercise target	1:5,000 or better; not met
20m-leg proportional corrections	−0.006m east and +0.008m north

9 Build a layer and attribute register

A parcel polygon stores boundary geometry; a road line represents a network element; a sale point locates an observation; a raster stores a grid of values such as imagery or elevation. Each layer also needs descriptive information: source, date, reference system, resolution or scale, accuracy evidence and permitted use. Attractive symbology cannot replace those metadata.

For the original exercise, parcel P-001 stores area 1,287.5 sqm, source “local teaching coordinates” and geometry status “valid in the stated model.” A synthetic hazard layer is defined by local north coordinate N≥25; a separate synthetic drainage-corridor layer uses N≥30. Neither is an actual government hazard classification or a statutory easement width.

A property record might contain deed area, approved-plan area, GIS-computed area and observed occupied area. Retain these as different fields with sources rather than overwriting them with one preferred number. A

difference between them can arise from measurement, reference systems, occupation, digitization or the documents' legal scope.

Keep units explicit in field names or metadata and keep identifiers as text when leading zeros matter. Parcel ID "001" is not safely interchangeable with numeric 1 in every dataset. A record that joins to the wrong parcel can create an assessment error even when its geometry and valuation arithmetic are otherwise correct.

Spatial record	Defined role	Key evidence
Parcel polygon	Geometry and identity	Source coordinates and boundary status
Road line	Network representation	Date and access/right evidence
Sale point	Transaction location	Matched sale identity and property scope
Raster	Grid of measured or modeled values	Cell size date meaning and positional evidence
Hazard layer	Screening relationship	Source classification reference and limitations

10 Check geometry and topology before overlay

Geometry validation examines whether the shape is suitable for its intended operation. A self-crossing ring, duplicate vertex or invalid polygon can produce unreliable clipping and area calculations. Review the issue rather than accepting a software repair without checking how it changes the geometry and its meaning.

Topology concerns relationships among features. Parcels in a defined coverage may need shared boundaries without unintended overlaps or gaps. A 0.4-metre gap between digitized polygons can reflect inconsistent source lines or snapping, not a newly discovered strip of unowned land. Define the coverage rules and distinguish genuine legal or physical differences from drafting artifacts.

Snapping can align nearby vertices or edges according to a chosen tolerance. If the tolerance is too large, it can collapse a narrow parcel feature or move a point away from its source. A tolerance must follow the purpose, data resolution and positional evidence; it cannot be chosen merely to make a map look clean.

Recalculate areas after an authorized geometry change and preserve the previous version and reason. Report sliver polygons and small overlaps as review items. Their size may be insignificant for one regional screen but material for a small parcel's frontage or an affected building footprint.

11 Join property records through the correct key

An attribute join associates descriptive records through a shared identifier. A spatial join uses a geographic relationship such as intersection or containment. These answer different questions. A building point inside a parcel may support a location relationship but does not prove who owns the building or which tax declaration applies.

The selected QGIS join reference describes linking layers or tables through common fields. [2] Before joining, establish the expected record relationship and check identifiers, uniqueness, missing matches and time periods. A join that runs without an error message can still attach the wrong record or omit useful records.

The fictional geometry table contains P-001, P-002 and P-003. The valuation table has one current P-001 record, two P-002 records for different years and no P-003 record. Joining only on parcel ID without resolving

year can be ambiguous. Some tools select one match; a one-to-many output may duplicate the geometry row. Neither behaviour should be assumed correct.

If P-002's 900-sqm geometry is repeated twice in a naïve expanded join, summing joined areas can overstate the parcel total by 900 sqm. The correct original total is 1,287.5 + 900 + 700 = 2,887.5 sqm; a duplicated-row sum would be 3,787.5 sqm. Resolve the relevant period and expected relationship, and treat unmatched P-003 as missing rather than zero value.

Geometry ID	Area sqm	Valuation-record situation
P-001	1,287.5	One current record
P-002	900.0	Two years; resolve the relevant period
P-003	700.0	No match; value remains unknown
Original total	2,887.5	Do not sum duplicated join geometries

12 Clip overlays and remove repeated area

The synthetic hazard band begins at N=25 within P-001. Its clipped polygon has vertices (0,25), (35,25), (25,35) and (0,35). It is a trapezoid with parallel widths 35 and 25 metres and height 10 metres, giving (35 + 25)/2 × 10 = 300 sqm. Its mapped coverage is 300/1,287.5 = 23.300971%.

The independent synthetic drainage corridor begins at N=30. Its clipped polygon has widths 30 and 25 metres over a height of 5 metres, giving 137.5 sqm. It lies completely inside the synthetic hazard coverage. Their union is therefore 300 sqm, not 437.5 sqm. Adding each layer's area would count the shared 137.5 sqm twice.

The parcel outside the mapped union is 1,287.5 − 300 = 987.5 sqm. That is the area outside these two teaching overlays, not a certified buildable area or unrestricted land area. Other planning, access, environmental or structural conditions could affect its use. The model supplies no legal conclusion that either synthetic band prohibits construction.

Synthetic overlay quantity	sqm
Band N ≥25	300.0
Corridor N ≥30	137.5
Shared area	137.5
Union counted once	300.0
Outside the union	987.5

Overlay output should identify the layers, dates, coordinate frame, clipping operation and overlap treatment. If the inputs have positional uncertainty, report the consequence rather than treating the clipped line as an exact legal boundary. A technically correct intersection can still be unsuitable for a parcel-specific legal determination.

13 Evaluate hazard and imagery evidence

HazardHunterPH's public description identifies government-generated hazard information and location-based assessment functions. [3] It provides a useful Philippine screening interface. An actual appraisal should record the source layer, hazard type, observation or model date, resolution, interpretation and the need for site-specific verification where material.

A raster's cell size is not automatically its positional accuracy, and a pixel value is not necessarily a surveyed site condition. A 10-by-10-metre cell represents 100 sqm in a metric planar grid, but a cell touching a parcel boundary does not mean the full cell lies within the parcel. Clipping and classification rules affect the reported covered area.

Old imagery can show a building that has been demolished or omit a recent addition. Seasonal water conditions can differ from an image's capture date. A screenshot with a marker should be treated as a dated observation with a particular resolution, not an approved survey plan or an unconditional hazard certification.

For the Talisay model, an analyst may test sensitivity by moving a screening boundary within a stated uncertainty band. Such a test explores the possible effect of the model assumptions; it does not authorize moving the actual parcel boundary or selecting the line that creates the most favourable development result.

14 Distinguish distance access and market evidence

A straight-line distance is not the same as a route distance, travel time or a legal access right. A nearby sale across a river can be less comparable than a farther sale on the same accessible road network. GIS can organize those relationships, but the appraisal still needs evidence about how participants respond to them.

In an original point exercise, the subject is (5,5), Sale S-01 is (8,9) and Sale S-02 is (45,5), all in the same local metre frame. Straight-line distances are $\sqrt{(3^2 + 4^2)} = 5$ metres and 40 metres. Separately supplied road-route distances are 45 and 60 metres. These route lengths are distinct teaching inputs, not derived by drawing the straight lines.

The closest straight-line sale is not automatically the best comparable. Investigate property rights, date, use, size, improvements, location advantages and transaction conditions. A geographic proximity filter can narrow a search without establishing that every selected transaction has equal evidential weight.

A separate access illustration places a road centreline at N=−5 near AB. The drawing shows physical proximity; it does not establish the road reserve width, an approved entrance or a legal frontage right. Obtain the appropriate cadastral, planning and access records before making a development or valuation conclusion based on the map.

15 Quantify uncertainty without inventing precision

Precision refers to the granularity or consistency of recorded results; accuracy concerns closeness to the relevant true or accepted position. Writing coordinates to three decimals can express millimetre-level numerical precision without any evidence of millimetre-level positional accuracy. A hand-digitized line should not acquire false authority through additional decimal places.

A separate rectangle has width 20 metres and depth 50 metres, with a stipulated possible width error of ±0.5 metre and exact depth for this restricted sensitivity. Area ranges from 19.5 × 50 = 975 sqm to 20.5 × 50 = 1,025 sqm. At an independently supplied constant PHP 2,000/sqm arithmetic rate, the range is PHP 1.95m to PHP 2.05m before any other value effects.

This is a deterministic assumption range, not a statistically estimated confidence interval or a universal survey tolerance. If depth and shape are also uncertain, the simple width-only model understates the range of

possible effects. Legal area and market unit price may also need their own evidence rather than a single multiplication.

When mapped and deed areas differ, calculate the difference and investigate its source. Do not change the deed area, boundary monuments or assessment record solely because a GIS screen gives another result. Reconcile identity, reference systems, source dates, approved survey evidence and occupation with the responsible specialists and authorities.

16 Produce a reviewable map and evidence schedule

A professional map should make its purpose, subject and data status clear. Include the relevant boundary, orientation reference, scale bar, legend, source and date, coordinate frame and measured outputs. Keep labels readable and avoid suggesting that a schematic is geographically located when it uses local exercise coordinates.

The Talisay figures state their local metre frame and fictional status. The parcel plot identifies all vertices; the overlay plot distinguishes the two synthetic bands and their shared area. The distance plot labels subject and sale points and separates straight-line geometry from the supplied route-distance table. Each figure answers a particular evidence question.

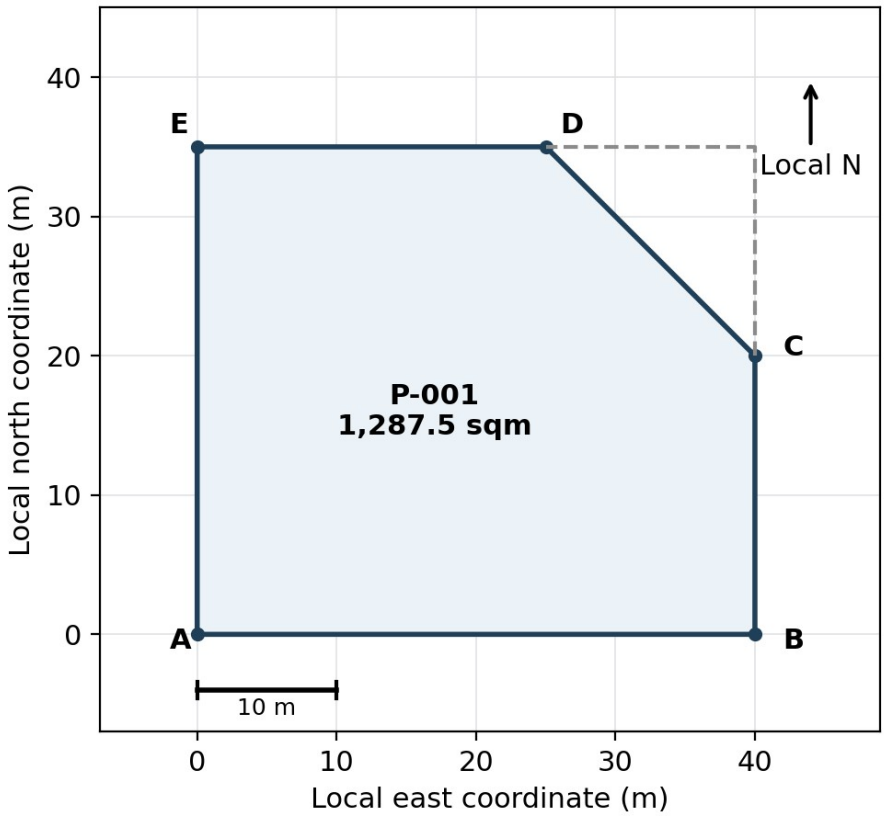
Retain a schedule of coordinate inputs, calculated increments, area checks, layer metadata, geometry validation, join exceptions and transformations. Link that schedule to the appraisal's property description and conclusions. A map without its evidence trail may be persuasive visually while remaining difficult to reproduce or verify.

Lesson 34 addresses appraisal reports, documentation and review. Carry forward the spatial distinctions: plotted area versus legally established area, screened hazard versus site determination, physical proximity versus access right, and a successfully executed join versus a verified property-record relationship.

Original parcel figure and coordinate schedule

Figure 1 plots the ordered P-001 vertices in the local metre frame. Dashed lines show the removed corner of the bounding rectangle. The local north arrow does not claim a geodetic north reference.

Figure 1 Talisay P-001 parcel



Original fictional local geometry | No geographic or cadastral location

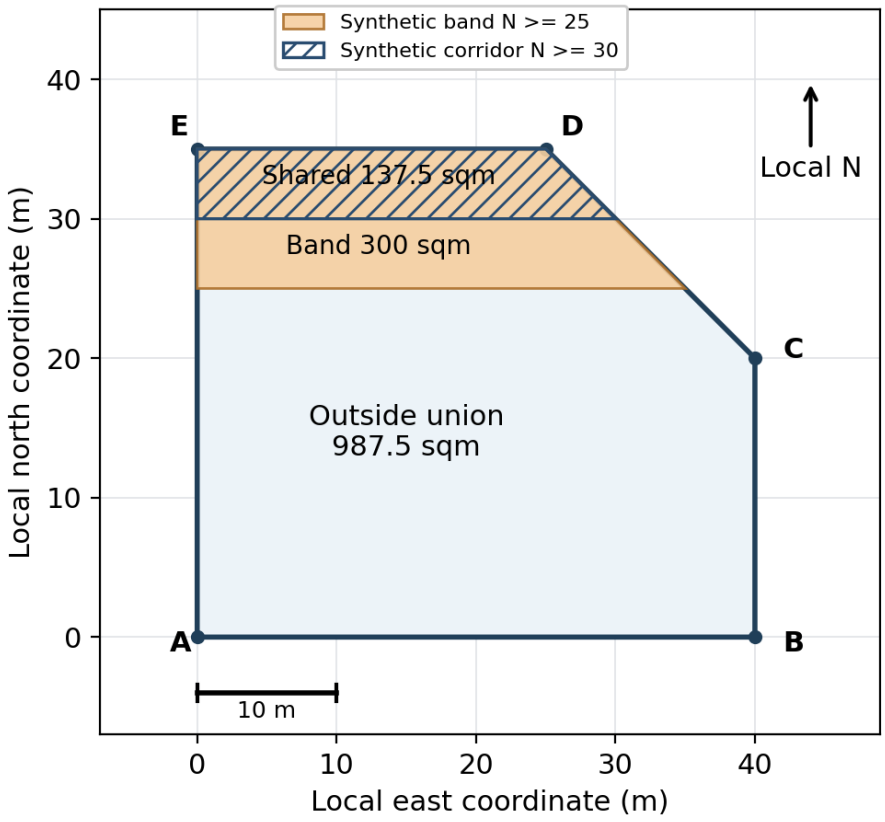
Vertex	East m	North m	Next side
A	0	0	AB 40m east
B	40	0	BC 20m north
C	40	20	CD 21.213203m northwest
D	25	35	DE 25m west
E	0	35	EA 35m south

Model area 1,287.5sqm; perimeter 141.213203m. This figure and schedule are original teaching material, not an approved survey or an actual property location.

Original overlay figure and union check

Figure 2 clips the synthetic N ≥25 band and N ≥30 corridor to the same parcel. The hatched corridor lies inside the shaded band; shared area must be counted once.

Figure 2 Two overlapping synthetic layers



Original fictional local geometry | No geographic or cadastral location

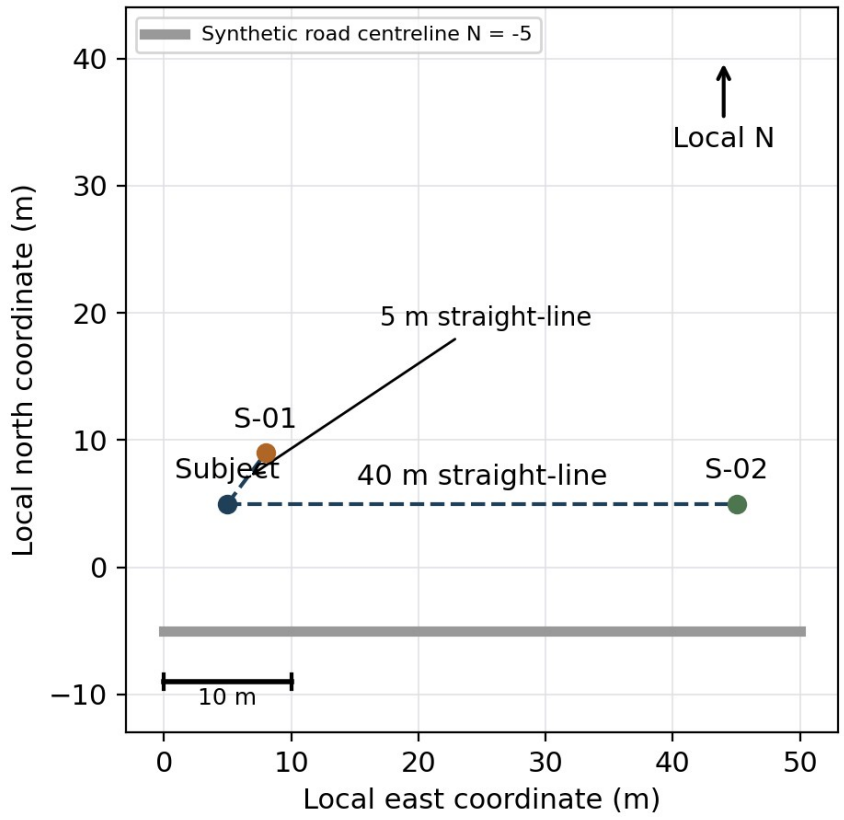
Quantity	sqm	Interpretation
Band	300.0	23.300971% of model parcel
Corridor and shared portion	137.5	Entirely within band
Union	300.0	Not the summed 437.5sqm
Outside union	987.5	Not automatically buildable area

Both bands are fictional local screening geometries. No government hazard classification, legal setback or easement entitlement is inferred from this figure.

Original distance figure and access distinction

Figure 3 shows straight-line distances between the local subject and sale points. The road line is synthetic. The route distances in the table are separately supplied, not traced from this drawing.

Figure 3 Straight-line comparison geometry



Original fictional local geometry | No geographic or cadastral location

Point	Local E N metres	Straight-line from subject	Supplied route
Subject	5, 5	Origin for comparison	Not applicable
S-01	8, 9	5m	45m
S-02	45, 5	40m	60m

Proximity helps organize evidence. It does not establish legal road access or make the closest transaction automatically the most suitable comparable.

17 Ten worked spatial evidence cases

Attempt each question before reading the solution. Coordinate frames, units and evidence status are stipulated. Preserve the defined geometry and distinguish arithmetic checks from actual survey or legal conclusions.

Case 1 Read scale after printing

Question: A correctly sized map is 1:1,000. A line measures 4 cm. What ground length does it represent, and what happens if it is printed at 150% of its original linear dimensions?

Solution: Original ground length = 4 × 1,000 cm = 40m. The enlarged line is 6cm; its actual representative fraction becomes approximately 1:666.667.

Reasoning: Uniform enlargement changes a printed numerical scale. A scale bar enlarged with the image continues to express the same ground length.

Case 2 Compute parcel area twice

Question: Use ordered A(0,0), B(40,0), C(40,20), D(25,35), E(0,35), returning to A, in local metres.

Solution: Rectangle less triangle: 1,400 −112.5 =1,287.5 sqm. Shoelace: |3,075 −500|/2 =1,287.5 sqm, or 0.12875ha.

Reasoning: Both methods use the same simple polygon and units. Agreement is an arithmetic check rather than independent field validation.

Case 3 Read the oblique boundary

Question: C(40,20) to D(25,35) has which increments, length and azimuth from local north clockwise?

Solution: ΔE =−15m; ΔN =+15m; length √450 =21.213203m; azimuth 315°, quadrant bearing N45°W.

Reasoning: The leg goes northwest. Coordinate signs and the specified angular reference determine the direction.

Case 4 Convert a quadrant bearing

Question: A separate 20m horizontal leg starts at (0,0) with bearing N30°E.

Solution: Azimuth 30°; ΔE =20sin30° =10m; ΔN =20cos30° =17.320508m; endpoint (10,17.320508).

Reasoning: The formulas use clockwise azimuth from north and degree mode. This is independent of the main parcel ring.

Case 5 Check a supplied traverse

Question: Independent traverse length 100m, east closure error +0.03m and north error −0.04m. Teaching target 1:5,000 or better.

Solution: Linear error 0.05m; relative closure 1:2,000, which does not meet the stipulated target. A 20m leg receives proportional corrections −0.006m east and +0.008m north.

Reasoning: The target is fictional and corrections are a restricted Bowditch-style illustration; neither establishes current survey acceptance or authority to move boundary corners.

Case 6 Clip the synthetic hazard band

Question: For P-001, the N≥25 clipped band has widths 35m and 25m over 10m height. Find coverage.

Solution: Area =(35+25)/2 ×10 =300sqm. Share =300/1,287.5 ×100 =23.300971%.

Reasoning: The band is synthetic and local. The result is overlay coverage, not an actual hazard certification or automatic land-value deduction.

Case 7 Remove overlap from two layers

Question: Synthetic drainage coverage N≥30 is 137.5sqm and lies wholly within the 300sqm synthetic hazard band. Parcel is 1,287.5sqm.

Solution: Union =300sqm; shared area =137.5sqm; outside union =987.5sqm. Adding both areas would overcount 137.5sqm.

Reasoning: Area outside these overlays is not automatically buildable area. The case supplies no legal restriction conclusion.

Case 8 Audit the duplicate join

Question: Original geometry areas are 1,287.5, 900 and 700 sqm. A one-to-many join repeats the 900sqm parcel because valuation years were not resolved.

Solution: Correct original total =2,887.5sqm. Expanded-row total =3,787.5sqm, overstated by 900sqm. Resolve the relevant period and relationship before summing.

Reasoning: Different tools can handle multiple matches differently. An unmatched property record is missing, not proven zero value.

Case 9 Compare distance definitions

Question: Subject (5,5), Sale S-01 (8,9), Sale S-02 (45,5). Supplied road-route distances are 45m and 60m.

Solution: Straight-line distances are 5m and 40m. Supplied route distances remain 45m and 60m.

Reasoning: Euclidean geometry differs from route travel. Neither nearest distance nor a nearby road alone establishes comparability or legal access.

Case 10 Quantify a limited area sensitivity

Question: A separate rectangle has width 20m ±0.5m, exact depth 50m and constant stipulated PHP 2,000/sqm arithmetic rate.

Solution: Area range 975–1,025sqm. Arithmetic amount range PHP 1.95m–2.05m; central amount PHP 2m.

Reasoning: This is a width-only deterministic range, not a confidence interval or certified survey tolerance. Other uncertain inputs would require a broader analysis.

18 Spatial evidence worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Map purpose and reference

Define the difference between locating a parcel, measuring area and proving a legal boundary. State the local metre frame, fictional status and essential metadata for P-001.

_____

_____

_____

2 Plot and area

Plot A-B-C-D-E-A from the coordinate table. Show rectangle/triangle and shoelace calculations; convert area to hectares and explain the arithmetic cross-check's limit.

_____

_____

_____

3 Bearings lengths and closure

Compute C–D length, bearing, azimuth and increments; sum the main ring's increments and compute its perimeter. Separately convert a 20m N30°E leg.

_____

_____

_____

4 Misclosure and proportional correction

Use the independent 100m traverse with errors +0.03E and −0.04N. Compute linear error and relative closure, compare the supplied 1:5,000 target and calculate corrections for a 20m leg.

_____

_____

_____

Spatial evidence worksheet continued

5 CRS and coordinate order

Explain assignment versus transformation and why a local sketch cannot be given an arbitrary EPSG code to locate it. Show what happens when vertex B's east/north fields are swapped.

_____

_____

_____

6 Overlay and evidence status

Calculate the 300sqm band and 137.5sqm corridor. Compute their union, shared area and area outside the union. Explain why those results do not establish a legal building envelope or actual hazard status.

_____

_____

_____

7 Join and distance checks

Reconcile original versus duplicated-row geometry totals. Explain the missing P-003 valuation. Compute both sale-point straight-line distances and compare with the independently supplied route lengths.

_____

_____

_____

8 Uncertainty and report map

Calculate the width-only rectangle range and stipulated arithmetic amounts. List the map elements and evidence schedule required for review. Explain why extra decimals, imagery and closure alone do not prove survey accuracy.

_____

_____

_____

19 Review and examination checks

Distinction	Examination check
Map and legal boundary	Representation does not establish title or approved survey
Large and small scale	Smaller denominator is the larger scale
Fraction and scale bar	Resized output changes printed numerical scale
Precision and accuracy	Decimals do not prove positional accuracy
Geographic and linear units	Degrees are not metres
Source and project CRS	Coordinate meaning differs from display reference
Assignment and transformation	Supported reference precedes coordinate conversion
Order and vertex set	Connect vertices in the supplied polygon sequence
Closure and accepted survey	Internal arithmetic consistency is a limited check
Geometry and topology	Shape validity differs from feature relationships
Attribute and spatial join	Shared key differs from location relationship
Duplicate and missing records	Multiplicity and absence require explicit review
Separate and union areas	Count shared overlay portion once
Distance and access	Straight line does not prove route or legal right
Screen and site conclusion	Hazard map supports further investigation

Explain the spatial evidence chain

Define the question and property; establish source reference and units; inspect geometry and metadata; perform a reproducible calculation or join; test overlap, multiplicity and uncertainty; and state exactly what the output supports.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. A GIS parcel map by itself establishes:

A. A final surveyed title boundary

B. Guaranteed ownership

C. A spatial representation requiring evidence for legal conclusions

D. Automatic development permission

2. At a correctly sized 1:1,000 map, 4cm represents:

A. 4m

B. 40m

C. 400m

D. 4,000m

3. Which is the larger-scale map?

A. 1:250,000

B. 1:50,000

C. 1:100,000

D. 1:1,000

4. Uniformly resizing a whole map and its scale bar means:

A. The bar remains useful while the printed numerical fraction changes

B. The source accuracy automatically improves

C. The geographic datum changes

D. Every parcel becomes larger on the ground

5. Geographic latitude/longitude values should not be used as metres because:

A. A GIS never supports geographic data

B. Every latitude is zero

C. They prove title

D. Their angular units differ from linear units

6. Assigning a CRS rather than transforming coordinates primarily:

A. Adds a legal access right

B. Automatically surveys the parcel

C. Changes how the existing numbers are interpreted

D. Always recalculates an accurate national position

7. P-001's missing northeast triangle has legs 15m and 15m. Area is:

A. 112.5sqm

B. 225sqm

C. 30sqm

D. 1,400sqm

8. The 40-by-35m bounding rectangle less that triangle gives parcel area:

A. 1,400sqm

B. 1,287.5sqm

C. 1,512.5sqm

D. 1,175sqm

9. Area 1,287.5sqm equals:

A. 12.875ha

B. 1.2875ha

C. 0.12875ha

D. 128.75ha

10. From C(40,20) to D(25,35), the increments are:

A. +25E and +35N

B. +15E and −15N

C. −15E and +15N

D. −40E and −20N

11. The local clockwise azimuth from north for N45°W is:

A. 45°

B. 315°

C. 135°

D. 225°

12. A 20m horizontal leg at N30°E has east increment:

A. 10m

B. 17.320508m

C. 20m

D. −10m

13. Closure errors +0.03E and −0.04N give linear misclosure:

A. 0.0025m

B. 0.07m

C. 0.01m

D. 0.05m

14. For total traverse length 100m and linear error 0.05m, relative closure is:

A. 1:5,000

B. 1:2,000

C. 1:500

D. 1:20,000

15. Exact closure of the constructed P-001 ring proves:

A. Arithmetic consistency of the supplied increments

B. Legal ownership automatically

C. Field observation accuracy automatically

D. Absence of all mapping uncertainty

16. A clipped trapezoid with widths 35m and 25m and height 10m has area:

A. 600sqm

B. 350sqm

C. 250sqm

D. 300sqm

17. A 137.5sqm corridor is wholly inside a 300sqm band. Their union is:

A. 162.5sqm

B. 437.5sqm

C. 300sqm

D. 137.5sqm

18. A one-to-many join repeats a 900sqm geometry. Summing the expanded rows can:

A. Improve survey accuracy

B. Overstate original area by 900sqm

C. Prove a new parcel exists

D. Convert missing value to lawful zero

19. Between (5,5) and (8,9), straight-line distance is:

A. 5m

B. 7m

C. 45m automatically

D. 25m

20. Width 20m ±0.5m with exact depth 50m gives area range:

A. Exactly 1,000sqm without uncertainty

B. 950–1,050sqm

C. 19.5–20.5sqm

D. 975–1,025sqm

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	B
2	B	12	A
3	D	13	D
4	A	14	B
5	D	15	A
6	C	16	D
7	A	17	C
8	B	18	B
9	C	19	A
10	C	20	D

1. C Mapping supports analysis; legal rights and accepted boundaries require their own evidence.
2. B 4cm ×1,000 =4,000cm =40m.
3. D A smaller denominator gives a larger representative scale.
4. A A bar scales with the image; the underlying ground distances do not change.
5. D Coordinate units and measurement method must be established before area or distance calculation.
6. C Reference assignment and a supported coordinate transformation are different operations.
7. A Triangle area =15 ×15 /2 =112.5sqm.
8. B 1,400 −112.5 =1,287.5sqm.
9. C Divide square metres by 10,000 to obtain hectares.
10. C Subtract start coordinates from endpoint coordinates.

Answer explanations continued

11. B The northwest quadrant is 360°−45° =315°.

12. A East increment =Lsin30° =10m under the specified azimuth convention.

13. D Use √(0.03²+0.04²)=0.05m.

14. B 100/0.05 =2,000. This does not meet the separately stipulated 1:5,000 exercise target.

15. A Internal closure alone cannot certify location, observations or a legal boundary.

16. D Average parallel widths multiplied by height gives 300sqm.

17. C The shared portion must not be counted twice.

18. B Joined record multiplicity can duplicate a geometric quantity unless the intended relationship is resolved.

19. A √(3²+4²)=5m. Route distance is a separate relationship.

20. D Multiply each width endpoint by the stipulated exact depth; this is a deterministic sensitivity, not a confidence interval.

Worksheet model responses

Response 1

State whether the task is navigation, geometric calculation or legal-boundary investigation. P-001 uses original local planar metre coordinates, with east/right and north/up and no geographic location or national datum connection. Record sources, dates, axes, units, geometry status and intended use; obtain proper survey and title evidence for legal conclusions.

Response 2

Bounding rectangle 1,400sqm less missing triangle 112.5 gives 1,287.5sqm. Shoelace forward 3,075 minus reverse 500, absolute difference divided by 2 gives the same area. Hectares 0.12875. Both methods reproduce the same input geometry and do not independently establish field accuracy.

Response 3

C–D increments −15E,+15N, length 21.213203m; N45°W or azimuth 315°. Ring sums ΔE=0, ΔN=0; perimeter 141.213203m. Separate N30°E leg gives +10E,+17.320508N. Exact constructed closure does not certify an actual boundary.

Response 4

Linear error $\sqrt{(0.03^2+0.04^2)}=0.05$m; length/error =2,000, expressed 1:2,000, below the stipulated 1:5,000 target. For 20/100 of length, east correction −0.006m and north +0.008m. Survey-class requirements and appropriateness of correction need technical authority in actual work.

Response 5

Assignment identifies what unchanged numbers mean; transformation expresses a supported position in another reference. Unknown/local numbers have no justified Earth location merely from a selected EPSG code. B intended (40,0) becomes (0,40) if the fields are reversed. Verify axes, source reference and control rather than choosing a plausible display.

Response 6

Hazard teaching band 300sqm or 23.300971%; corridor 137.5sqm entirely inside it. Shared area 137.5sqm and union 300sqm; outside 987.5sqm. Synthetic screening bands are not legal restrictions, and outside-union area is not automatically buildable. Actual data dates, reference and accuracy must support an overlay.

Response 7

Original total 2,887.5sqm; repeated 900sqm row produces 3,787.5sqm. Resolve period and relationship before aggregation. Missing P-003 valuation is unknown, not zero. Sale distances are 5m and 40m straight-line versus supplied 45m and 60m routes; access and comparability require separate evidence.

Response 8

Rectangle area 975–1,025sqm and stipulated amount PHP 1.95m–2.05m. Include subject/purpose, boundary, orientation reference, scale bar, legend, source/date, coordinate frame and measured results. Preserve inputs, checks, metadata, joins and transformations. Decimal precision, imagery alignment and closure do not establish field or legal accuracy.

22 Essential terms and calculation review

GIS Geographic information system linking geometry and records.

CRS Coordinate reference system defining coordinate meaning.

Datum Reference foundation used in positioning.

Azimuth Clockwise direction from the specified north reference here.

Quadrant bearing Angle from north or south toward east or west.

Traverse closure Accumulated position discrepancy at the starting point.

Topology Relationships such as shared boundaries gaps and overlaps.

Attribute join Record association through a defined common field.

Spatial join Association through a specified spatial relationship.

Intersection Geometry common to the selected features.

Union Combined geometry with shared area counted once.

Raster resolution Grid-cell dimension distinct from positional accuracy.

Defined teaching relationship	Formula or result
Ground map distance	Map distance × scale denominator; same units
Degree minute conversion	Degrees + minutes/60 + seconds/3,600
Azimuth increments	$\Delta E = L \sin \theta$; $\Delta N = L \cos \theta$
Planar leg length	Square root of ($\Delta E^2 + \Delta N^2$)
Shoelace area	Half absolute cyclic cross-product difference
Hectares	Square metres /10,000
Linear misclosure	Square root of (east error² + north error²)
Relative closure	Traverse length / linear misclosure
Two-layer union area	Area 1 + area 2 − shared area
Mapped coverage percent	Clipped layer area / parcel area ×100
Point distance	Square root of (east difference² + north difference²)
Restricted rectangle range	Width-range endpoints × stated exact depth

All planar relationships require compatible linear units and the stated reference. Angles use degree mode here. Zero misclosure in the constructed ring does not establish unlimited field accuracy or a legal boundary.

23 Sources and preparation status

Research reviewed on 12 October 2026. Coordinates, diagrams, explanations, cases and questions are original educational work, not publisher diagrams or actual PRC items. Area and overlay arithmetic were independently checked from the supplied geometry. No figure has an actual geographic or cadastral location.

1 QGIS reference and measurement concepts

QGIS 3.44 documentation on coordinate reference systems and working with projections. Selected concepts distinguish coordinate interpretation, project display and supported transformations; no software installation or live parcel analysis is implied.

https://docs.qgis.org/3.44/en/docs/user_manual/working_with_projections/working_with_projections.html

2 QGIS join concepts

QGIS 3.44 vector properties documentation, Joins Properties. Selected shared-field concepts checked; the duplicate-year example is original and tool behaviour must be verified in actual work.

https://docs.qgis.org/3.44/en/docs/user_manual/working_with_vector/vector_properties.html

3 Philippine hazard screening interface

HazardHunterPH public description identifies government-generated hazard information and location-based assessment functions. The chapter overlays are synthetic and are not data retrieved for an actual site.

https://hazardhunter.georisk.gov.ph/

4 Philippine reference context

NAMRIA projects material on PRS92 and geographic integration. Establish the specific source and current applicable geodetic requirements for an actual survey; no national-system connection is claimed for the local exercise.

https://www.namria.gov.ph/projects.aspx

REALEX

Lesson 34

Appraisal Reports Documentation and Review

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Research reviewed 12 October 2026

Organize the report around the assignment and evidence. Document significant inputs, assumptions, methods, reconciliation and limitations, and review what each statement actually establishes.

This lesson develops an original report template, a deliberately flawed fictional extract, a corrected communication and a reviewer rubric. It includes ten worked cases, a two-page worksheet and twenty original questions with explained answers.

The Tala property file and all financial inputs are fictional teaching material. No document here is a signed appraisal, a professional certification or a full national standards audit. The case's material evidence gaps require withholding an unconditional final opinion even after arithmetic is corrected.

Your learning goals

- Align client use users interest and value basis.
- Distinguish the report from its supporting documentation.
- Separate valuation inspection and report dates.
- Trace property identity condition and area to evidence.
- Classify verified transactions asking prices and assumptions.
- Audit cost and income models within their defined scope.
- Reconcile compatible evidence through professional judgment.
- Disclose material assumptions limitations and uncertainty.
- Describe actual specialist work without inventing findings.
- Evaluate compliance statements and professional particulars.
- Distinguish valuation review from a new value opinion.
- Maintain correction issue and retention records.

Study plan: Allow five hours in two sessions. Read sections 1–8 for assignment and analytical reporting, then sections 9–16 for disclosures, review and issue control. Use the report tools before attempting the cases, worksheet and test. Prerequisite themes are scope, approaches and reconciliation.

1 Organize the report around the assignment

An appraisal report explains what was valued, why, at what date and how the evidence supports the conclusion. Its structure should help the intended user follow the reasoning rather than merely display a final number. A polished cover, a long property description and a signed conclusion cannot repair an undefined interest or an unsupported model.

The assignment identifies the client, intended use, intended users, property or asset interest, valuation date, currency and value basis. The report should agree with that assignment or explain an authorized change. A request from one lender cannot silently become an opinion for every future purchaser or an unlimited group of banks.

This lesson develops the fictional Tala Commercial Annex report file. The instruction is to examine an ownership interest in land and existing unfinished improvements, in their actual condition at 30 September 2026, for a named fictional client and a separately identified lender's financing consideration. Business goodwill, movable equipment, tax liability and the lender's eventual credit decision are outside the stipulated valuation scope.

All properties, documents, amounts and review findings are original teaching material. The chapter includes an intentionally flawed extract, a report template and a reviewer rubric. None is an actual appraisal, a signed professional certificate or a substitute for the full applicable standards and assignment-specific evidence.

2 Distinguish the report from its supporting record

The report communicates the result and the reasoning needed for its intended use. Supporting documentation preserves the evidence and decisions behind that communication: engagement records, inspections, source documents, calculations, rejected alternatives, correspondence and review findings. Not every working paper needs to appear in the client's report, but material reasoning cannot disappear from both places.

The selected IVS 106 concepts connect written reporting, documentation and the reasoning supporting conclusions. [1] The original organization in this chapter is a learning aid, not a prescribed national report form. An appropriately experienced reviewer should be able to follow the analysis through the referenced materials and understand how the conclusion was reached.

A report stating "comparable sales support the value" is insufficient if it neither identifies the evidence nor explains how differences were addressed. A workfile containing hundreds of screenshots also falls short if no record explains which observations were accepted and why. Quantity of documents differs from a traceable argument.

Use stable evidence identifiers. Tala's file records the instruction as E-01, property documents as E-02, the site record as E-03, comparable evidence as E-04 and cost analysis as E-05. Each identifies its source, date, version, scope and verification status. The report can refer to those items without confusing unverified information with established facts.

3 Separate the relevant dates and property conditions

Tala's stipulated valuation date is 30 September 2026. An exterior-only site visit occurs on 4 October 2026, and the review memorandum is dated 12 October 2026. These dates serve different functions. The later visit must be evaluated for what it reveals about the condition at the earlier valuation date; it does not automatically change that date.

A property can change between valuation and inspection. Record any construction, occupancy or damage during the interval and assess the evidence needed to reconstruct the relevant condition. If the analyst cannot

determine whether the observed condition existed at the valuation date, disclose the gap and consider whether the assignment remains supportable.

Tala's actual condition is unfinished and vacant under the supplied case facts. An analysis assuming completion and full letting describes another condition. It may be useful as a separately defined scenario, but it must not be relabelled as the actual current-condition opinion merely because its arithmetic produces a higher amount.

A report's issue date is not a promise that its conclusion stays valid indefinitely. State the value date and the reliance conditions. A subsequent update requires a defined scope, review of changed evidence and appropriate documentation; replacing the date on the cover is not an update of the valuation analysis.

Case date	Defined role
30 September 2026	Valuation date and actual-condition inquiry
4 October 2026	Exterior-only visit; earlier condition needs evidence
12 October 2026	Teaching review memorandum date

4 Describe rights identity and physical evidence consistently

The property description should identify the interest and the assets sufficiently to distinguish them from neighbouring or similarly named property. Link the parcel identifiers, site plan, location evidence and improvements schedule. A company owning a building and a tenant occupying it do not hold the same interest, and a corporate share price is not automatically a property value.

The Tala source file supplies land area 800 sqm and an approved-plan building area 500 sqm. A separate unverified GIS sketch records 520 sqm. These are different evidence entries. The analyst has no basis to call the sketch area a newly certified survey result or to overwrite the plan record without investigation.

The 20-sqm discrepancy is 4% of the 500-sqm plan area. At a supplied diagnostic rate of PHP 6,000/sqm, the arithmetic difference is PHP 120,000. This illustrates potential materiality; it is not proof that the GIS figure is correct or that the final market opinion must change by exactly PHP 120,000.

The exterior visit does not establish interior condition, completion quality or functioning services. The case supplies that these unobserved matters could materially change the improvement contribution. A sentence claiming full internal inspection would therefore be a factual misstatement, not a harmless drafting shortcut.

5 Maintain an evidence and input schedule

For each significant input, show whether it comes from an inspected condition, a supplied document, market research, a specialist or an assumption. Identify its relevance to the property, date and value basis. An owner's assertion about completion cost is not automatically an independently verified contractor estimate.

The original Tala market file has two stipulated verified and normalized current-condition transactions at PHP 6.6 million and PHP 7.0 million. Their scope and reliability are supplied as comparable for the restricted exercise, producing a simplified PHP 6.8 million sales indication. A third figure of PHP 7.2 million is an asking price and is not a completed sale.

A report should not describe all three as verified sales. The asking observation can be recorded as a different evidence type if relevant, with its limitations. Do not hide the listing's status by placing it in a table headed "sale price" or by averaging it with completed transactions without an evidence-based justification.

Retain normalization and adjustment work. Record raw price, date, interest transferred, included assets, verification and the reason for each adjustment. A reviewer needs to distinguish an observed amount from a

modeled adjustment and a supplied teaching input. Unsupported percentages do not become market evidence through repeated use.

Tala observation	PHP million	Evidence status
Transaction T-01	6.6	Stipulated verified normalized current-condition sale
Transaction T-02	7.0	Stipulated verified normalized current-condition sale
Listing L-01	7.2	Asking observation; not a completed transaction
Restricted sales indication	6.8	Supplied equal-reliability model of the two transactions

6 Explain the cost model and prevent repeated deductions

The independent Tala cost check supplies compatible land indication PHP 4 million and replacement cost of the existing work scope PHP 3 million. It excludes unbuilt completion work. Distinct supported losses are PHP 300,000 physical and PHP 200,000 functional, leaving the existing improvement contribution at PHP 2.5 million.

The resulting current-condition cost indication is PHP 4 million + PHP 3 million − PHP 0.3 million − PHP 0.2 million = PHP 6.5 million. This teaching model does not price a completed building and then ignore the missing works. A model label must match what the cost base actually includes.

The deductions are expressly stipulated as distinct. If a replacement benchmark already removed an inefficiency, deducting the same functional effect again would overlap. Likewise, adding a completion budget to existing work and calling the total an as-is contribution would import an unperformed investment into the present property condition.

The report should state the cost source, scope, date and treatment of land and losses. A lump-sum depreciation label cannot explain whether the deduction concerns condition, design or external influences. Explain the cause, base and any interaction so another professional can reproduce the model rather than guess at its meaning.

Existing-work cost check	PHP million
Compatible land	4.0
Replacement of existing works	3.0
Distinct physical loss	−0.3
Distinct functional loss	−0.2
Current-condition indication	6.5

7 Keep the completion income scenario separate

Tala’s independent completion scenario supplies stabilized property rent PHP 900,000 annually and property expenses PHP 180,000, giving NOI PHP 720,000. A compatible stipulated capitalization rate of 8% produces a

PHP 9 million indication for the defined completed-and-let scenario. The rate and cash flows are exercise inputs rather than verified local market parameters.

A separately specified transition bridge deducts PHP 1 million completion expenditure, PHP 300,000 carrying allowance and PHP 200,000 residual risk allowance from PHP 9 million, giving PHP 7.5 million. The case stipulates that these amounts are distinct and expressed on the same valuation-date basis. They are not undiscounted amounts from incompatible future dates.

That bridge is a restricted scenario calculation, not independent proof of the actual current-condition market value. Actual use requires support for completion scope, timing, lettability, allowances and participant behaviour. The material interior-access limitation in the Tala file remains unresolved even though the bridge adds correctly.

Separate completion scenario	PHP million
Property rent	0.900
Property expenses	−0.180
NOI	0.720
Completed indication at 8%	9.000
Completion expenditure allowance	−1.000
Carrying allowance	−0.300
Distinct residual risk	−0.200
Restricted scenario bridge	7.500

A repaired report can explain what the scenario would mean under its assumptions, while keeping it outside the final reconciliation unless its use for the actual interest is properly supported. Rewriting the heading “completed” as “as-is” does not convert the assumptions or establish their relevance.

8 Reconcile compatible evidence through judgment

Reconciliation evaluates the relevance and reliability of the indications. The restricted current-condition sales indication is PHP 6.8 million and the cost check PHP 6.5 million. The separately assumed completion bridge is PHP 7.5 million. Their relationships require explanation; a table of three amounts is not a valuation conclusion.

Even if all three were combined by equal arithmetic weights, the result would be (6.8 + 6.5 + 7.5)/3 = PHP 6.933333 million, not PHP 9 million. Correcting that average would fix an arithmetic statement but not justify the use of equally weighted or incompatible evidence. Arithmetic correctness and a supportable reconciliation are different review tasks.

The Tala teaching review treats PHP 6.8 million as a preliminary current-condition analytical indication, with the compatible PHP 6.5 million cost check as supporting context. It does not turn that preliminary figure into a release-ready final opinion while material property evidence is missing. The completion bridge remains separately labelled.

Explain why a method carries more or less evidential weight, why an approach was not used and whether a difference points to unresolved assumptions. A valuer may reasonably prefer strong market evidence over a

weak model, but the report must connect that preference to the assignment and evidence rather than the client's requested result.

Analytical output	PHP million	Status
Current-condition sales	6.8	Preliminary teaching indication
Existing-work cost check	6.5	Compatible supporting model
Completed income scenario	9.0	Different assumed condition
Completion scenario bridge	7.5	Restricted separate model; needs support
Final unconditional opinion	Withheld	Material evidence remains unresolved

9 Disclose assumptions limitations and uncertainty

An assumption identifies a condition taken as given for the analysis; a special assumption identifies an expressly defined condition different from the actual circumstances or the usual position under the assignment. An inspection limitation describes work or evidence that was unavailable. These should be distinguished and connected to their effect on the reasoning.

For Tala, no interior inspection occurred. The completion scenario changes the supplied unfinished/vacant condition. The 520-sqm sketch is unverified. A single sentence saying "all assumptions are standard" would fail to communicate these materially different issues. The reader needs to know what was observed, supplied, assumed and still unresolved.

Uncertainty does not automatically make a valuation impossible, nor can it always be solved by adding a generic disclaimer. Assess its significance for the intended use and whether sufficient evidence remains. If a critical condition cannot be investigated or supported, modify the scope appropriately or withhold the unsupported conclusion.

A sensitivity example varies the stipulated NOI of PHP 720,000 at rates 7.5%, 8.0% and 8.5%, giving completed-scenario amounts PHP 9.6 million, PHP 9 million and approximately PHP 8.470588 million. The range illustrates input sensitivity; it is not a confidence interval or evidence that every value within it is equally supportable.

Completed-scenario rate	NOI PHP	Indication PHP
7.5%	720,000	9,600,000
8.0%	720,000	9,000,000
8.5%	720,000	8,470,588

10 Use specialists without inventing their findings

The valuer may need legal, engineering, environmental or other specialist evidence for material issues outside the appropriate competence or investigation scope. Identify who performed the work, the relevant findings, date, limitations and how the valuation uses it. A referral or an intended inspection is not the same as a completed specialist conclusion.

The Tala file contains no engineering report confirming internal soundness or completion quality. The flawed extract's assertion that an engineer certified the whole building is therefore unsupported. Removing the engineer's name while retaining an unconditional soundness claim would not solve the evidence problem.

A specialist's cost estimate also needs scope compatibility. A finishing quotation excluding mechanical and electrical works cannot support a budget described as complete commissioning and fit-out. Review inclusions, exclusions, contingencies and timing before using the estimate in a value bridge.

The valuer remains responsible for appropriately integrating the evidence into the assignment. Citing a specialist does not transfer every valuation judgment or permit claims beyond that specialist's report. Document disagreements or limitations that are material to the conclusion rather than presenting a collection of professional labels as proof.

11 Make compliance and professional statements accurate

The checked IVS 106 reporting provisions address compliance statements and distinguish valuation review from valuation. A restriction affecting IVS compliance cannot be concealed behind a blanket compliance assertion. [1] State the applicable edition and evaluate the actual work rather than copying a statement from another report.

The chapter uses selected IVS text effective 31 January 2025. The IVSC consultation page identifies proposed updates intended for a later edition; those proposals are not treated here as operative requirements. [3] An actual national assignment must also establish the applicable PVS and legal framework rather than assuming international and national compliance are interchangeable.

RA 9646 describes written reporting within real estate appraisal practice and identifies professional particulars for documents signed or issued in practice. [2] Use actual, applicable credentials and signature authority in a real report. The educational template uses fields for those particulars and does not invent a licensed appraiser or a registration number.

A signed professional conclusion should accurately identify the work performed, conflicts or relevant interests and the basis for the judgment. A client's pressure to reach a number does not justify asserting independence, inspection or compliance that the evidence contradicts. Report language should reflect the professional work actually completed.

12 Define the reviewer's scope and conclusion

A review should identify the report and version examined, its own client and intended use, the procedures performed and the limits of the available record. A process review examines the valuation process or compliance question; a value review examines reasonableness of value. The selected IVS distinction treats a newly supplied reviewer value as valuation work requiring its own reporting treatment. [1]

An arithmetic review of the Tala extract can identify incorrect addition and a false average. It cannot establish market support, title or interior condition from arithmetic alone. Likewise, an editorial check can improve wording without verifying the significant inputs. State which tasks the reviewer performed rather than implying a comprehensive technical review.

The original Tala review covers assignment consistency, evidence status, computations, scenario separation, reconciliation, material disclosures and version control. It has access only to the supplied teaching file. It does not inspect the actual property, independently establish a market opinion or decide legal ownership.

A useful finding identifies the issue, evidence, consequence and required action. "The report is poor" gives the author little to correct. "The stated full inspection conflicts with E-03's exterior-only record and leaves material interior condition unsupported" identifies the mismatch and the evidence needed to address it.

13 Use an original rubric with material issue overrides

The chapter's original review rubric has eight areas, each scored 0–3: assignment, dates, identity/rights, evidence, model arithmetic, reconciliation, disclosure/compliance and issue control. Three indicates an adequately supported area within the review scope; two a limited correction; one a material gap; zero an absent or contradicted foundation. These are teaching ratings, not a mandated standards score.

The maximum is 24 points. A high total does not compensate for a critical defect such as the wrong property interest, a false inspection claim or material evidence insufficient for the intended conclusion. The rubric therefore separately records release-blocking issues and the corrective evidence needed. Do not treat a numerical score as a professional certification.

For the intentionally flawed Tala extract, the original teaching scores are 0, 0, 1, 1, 0, 0, 0 and 1, totaling 3/24. More important than the total, the extract changes the property condition, contradicts the inspection record and makes an unsupported compliance claim. Those issues require withholding the unconditional conclusion.

A proportionate disposition can distinguish editorial corrections, model corrections and new investigation. Clarifying a date label can be a writing correction; correcting the cost sum is a model correction; obtaining material interior evidence is new work. The reviewer should not mark all three resolved merely because the author rewrote the paragraph.

14 Repair the report without erasing the issue history

A correction should preserve the source of the original issue and the action taken. Identify the old version, changed statements, new evidence and effect on the analysis or conclusion. Silently replacing a issued report's number leaves a misleading history for clients or reviewers who retain earlier copies.

The repaired Tala extract removes claims of full inspection, separates the completed scenario, corrects the PHP 6.5 million cost check and identifies the verified-sale and asking-price evidence separately. It preserves the valuation date, inspection date and review date. It labels PHP 6.8 million as a preliminary analytical indication and withholds an unconditional final opinion pending material investigation.

A material change to the property evidence can require recalculation rather than only an amended disclosure. If a subsequent internal inspection reveals an additional PHP 400,000 defect not reflected in the existing losses, the appropriate model must be reassessed for scope and overlap. Do not simply append "defect noted" while keeping every original calculation unchanged.

Use a revision register with author, reviewer, date, reason and status. Distinguish working draft, reviewed draft and issued report. A status label should correspond to the actual approvals and evidence, not a filename ending in "FINAL" while critical review items remain open.

15 Retain and protect the report record

Retention supports reproducibility, later review and accountability. Preserve the issued report and the necessary valuation documentation under applicable legal, regulatory, authoritative and contractual requirements. The selected IVS provision does not prescribe one universal retention period for all assignments. [1] An unsupported statement that every file is destroyed after one year is not an adequate policy.

Protect records with controlled access and appropriate backups. A confidential lease schedule or personal ownership document should not be included in an unrestricted public annex merely because it was useful to the analysis. Determine what the intended user needs, the permission for disclosure and the relevant privacy obligations.

External models and automated tools need review too. Keep the significant inputs, calculation logic, versions and checks necessary to understand the output. A generated paragraph can contain a plausible but unverified

source, credential or property statement. The professional reviewer must compare the text with the evidence before it becomes an issued representation.

A report reference should identify an accessible, stable document for the intended user or explain the relevant evidence in the report. “See the file” is inadequate if the file cannot be identified or obtained. Traceability involves both preserving the record and communicating the significant reasoning.

16 Communicate what is established and what remains open

The Tala review can establish the supplied arithmetic: current-condition sales indication PHP 6.8 million, cost check PHP 6.5 million, completed income indication PHP 9 million and separate scenario bridge PHP 7.5 million. It can also establish that the flawed extract mislabels evidence and contains internal contradictions.

It cannot resolve material interior condition, certify the unverified GIS area or assert full national/international compliance from the restricted file. The corrected communication states those limits and the next evidence required. Clear status is part of professional reporting: a preliminary analytical amount is not a signed, unrestricted final opinion.

Use the original template that follows to organize a new assignment, then apply the deliberately flawed extract and rubric to practise review. The template’s fields must be completed from actual evidence and applicable requirements; copying its layout does not guarantee that the resulting report is adequate.

Lesson 35 turns to current developments and dated legal updates. Continue the same discipline when a rule or standard changes: identify the source, status, effective date and assignment consequence, then update the relevant report statements and methods without treating a proposal or old citation as current authority.

Original report template assignment and analysis

Complete this original skeleton from actual assignment evidence. Bracketed entries are fields for the author, not supplied facts. Adapt its depth and organization to the intended use and applicable requirements.

1 Assignment and reliance

Client [name]; intended use [decision]; intended users [identified parties]; reliance and distribution conditions [terms]. Describe any authorized changes to the instruction and where they are documented. Do not extend users or use through generic boilerplate.

2 Subject and interest

Property identifiers [parcel/title/plan]; location [supported description]; interest [ownership/leased/limited right]; included and excluded assets [scope]. Reconcile identity and rights with the source documents; identify material unresolved items.

3 Dates basis and currency

Valuation date [date]; inspection date and type [date/scope]; report date [date]; currency [unit]; basis [applicable source and meaning]. Explain any reconstructed earlier condition, prospective scenario or date-related limitation.

4 Work performed and source register

State inspections, inquiries, verification, calculations and specialist work actually completed. Reference each significant source by identifier, date/version, scope and verification status. Distinguish actual observations, supplied information and assumptions.

5 Property and market analysis

Describe relevant physical condition, use, restrictions, market participants and feasibility. Explain material environmental or other factors where relevant. Keep GIS screening, title evidence and technical findings in their proper evidential roles.

6 Methods and models

For each used approach, identify the method, model, significant inputs, units, dates and rationale. Show key calculation steps or refer to an identifiable schedule. Explain scope compatibility, losses, allowances and exclusions. Record why a relevant alternative was not used.

Original report template conclusion and issue control

7 Reconciliation and conclusion status

Explain reliability and compatibility of the indications before selecting a conclusion. State the amount, interest, date, basis, currency and property condition together. If work is incomplete, clearly state the preliminary status or withheld conclusion rather than presenting an unsupported final opinion.

8 Assumptions limitations and uncertainty

Identify significant assumptions, separately defined special scenarios and material investigation restrictions. Explain their effect and why the remaining evidence is sufficient or what further work is required. Include useful supported sensitivity where appropriate.

9 Specialists and responsibility

Identify actual relevant specialist findings, date, scope and limitations. Explain their use in the valuation. Record responsible valuer and reviewer roles without inventing findings, qualifications or third-party approval.

10 Professional and compliance statements

Insert genuine applicable professional particulars and signature authority. Identify the standards and edition actually applied and make a compliance statement only when the performed work supports it. Do not use this template as proof of IVS or PVS compliance.

11 Issue and revision control

Report ID [identifier]; version [number]; status [draft/reviewed/issued]; author/reviewer [roles]; changes [reason/evidence/effect]; issue date [date]. Preserve superseded issued versions and communicate material revisions appropriately.

12 Supporting schedules and retention

Attach or identify the necessary evidence register, maps, computations, photographs, assumptions and review record. Protect confidential information and retain issued/supporting documents under the applicable legal, regulatory, authoritative and contractual requirements.

Intentionally flawed extract and repaired communication

The extract below is intentionally wrong and is not suitable for issue. Use the Tala facts and the rubric to identify factual, scope, model and reporting defects. All wording is original teaching material.

F1 Assignment

This final market-value report is for Tala Holdings, every bank and all future buyers. It may be used for any transaction indefinitely.

F2 Dates and condition

The property is complete and fully let at the valuation date, which is 30 September, 4 October and 12 October 2026. A full internal and external inspection was completed.

F3 Identity and expertise

The GIS sketch certifies 520sqm of building area and replaces the 500sqm approved plan. An engineer confirmed all internal works are sound; no further technical evidence is needed.

F4 Market and cost

All three observations at 6.6m,7.0m and 7.2m are verified completed sales. The cost approach is 4m land +3m existing works −0.3m physical −0.2m functional =7.5m.

F5 Income and reconciliation

Rent 0.9m less expenses 0.18m gives NOI 0.72m; at 8% the actual unfinished property is worth 9m. Equal averaging of 6.8m,6.5m and 7.5m also gives 9m. Completion expenditure and other allowances can be ignored.

F6 Release and records

There are no material assumptions, limitations or uncertainty. This report fully complies with all PVS and IVS requirements. Every working record will be destroyed after one year.

Corrected communication and review disposition

The instructed subject is the ownership interest in land and existing unfinished improvements in their actual condition at 30 September 2026, for Tala Holdings and the identified Harana Bank financing consideration. The exterior-only visit occurred on 4 October 2026; this teaching review memorandum is dated 12 October 2026.

The file records approved-plan building area 500sqm and a separate unverified 520sqm GIS sketch. The discrepancy needs investigation. No engineering certification of internal condition is in the file. Interior access and condition evidence remain material open items.

The two stipulated verified normalized transactions support a preliminary 6.8m analytical indication; the 7.2m asking observation is separately classified. The compatible existing-work cost check is 6.5m. Completed-and-let NOI 720,000 at 8% gives 9m for that scenario; its restricted bridge after the distinct supplied allowances is 7.5m. These scenario amounts are not an unconditional current-condition conclusion.

An unconditional final opinion is withheld pending material condition and source review. No blanket IVS/PVS compliance statement is made from this restricted teaching file. Preserve source versions, calculations and issue history under the applicable retention requirements.

Release-blocking findings

The actual-condition inquiry was replaced by a completion premise; the full-inspection assertion contradicts the source; specialist evidence was invented; and the blanket compliance statement lacks support. Correcting sums does not resolve those material foundations.

Next evidence and review actions

Obtain appropriate interior-condition evidence, reconcile the area sources, verify the completion scenario’s scope and significant inputs, reassess the current-condition model, and document the report’s applicable standards and actual issue status. Retain the original finding and evidence of each correction.

Original reviewer rubric and finding record

Score each area 0–3 within the stated review scope. 3 = adequately supported; 2 = limited correction; 1 = material gap; 0 = absent or contradicted foundation. Maximum 24. The following scores are original teaching judgments on the flawed extract, not mandated standards ratings.

Review area	Focus	Score / 3
Assignment	Client use users interest and actual condition	0
Dates	Value inspection and report roles	0
Identity and rights	Property/area source scope and status	1
Evidence	Verified sale asking and source distinctions	1
Model arithmetic	Correct units scope and calculations	0
Reconciliation	Compatible evidence and reasoned weighting	0
Disclosure and compliance	Material limits specialist facts and supported claims	0
Issue control	Version status and retention record	1

Supplied total 3/24 =12.5%. Record release-blocking issues separately; a high total in other areas cannot compensate for the wrong interest, false inspection claim or insufficient material evidence.

Finding record fields

Finding ID and report version [record]

Issue and source evidence [what is contradicted or missing]

Effect and severity [editorial model or investigation; release impact]

Required action and responsible role [supported correction or new work]

Resolution evidence and reviewer status [open or verified]

Review disposition for the Tala file: withhold an unconditional final opinion pending material evidence. The review does not independently supply a new property value or certify complete IVS/PVS compliance.

17 Ten worked report and review cases

Attempt each question before reading the solution. Assignment facts and model inputs are stipulated. Identify what each review procedure establishes and distinguish a corrected calculation from a supported final valuation.

Case 1 Separate three dates

Question: Tala valuation date 30 Sep 2026, exterior visit 4 Oct 2026, review memorandum 12 Oct 2026. Can the report call all three the valuation date?

Solution: No. State each event separately and examine whether the later observed condition supports the earlier valuation date.

Reasoning: A later visit or issue date does not automatically change the date of value. The evidence must address the relevant condition.

Case 2 Correct the area statement

Question: Approved-plan area is 500sqm; an unverified GIS sketch records 520sqm. At a supplied diagnostic 6,000/sqm rate, calculate the difference and assess the wording “certified GIS area.”

Solution: Difference 20sqm, or 4% of 500sqm; diagnostic amount PHP 120,000. Remove the unsupported certification claim and investigate the source difference.

Reasoning: The calculation shows possible materiality. It does not prove the sketch is correct or authorize overwriting the accepted source.

Case 3 Classify the market records

Question: Two stipulated verified normalized current-condition transactions are 6.6m and 7.0m; a third observation 7.2m is an asking price. The restricted sales model gives equal weight to the two transactions.

Solution: Sales indication = (6.6+7.0)/2 =6.8m. The 7.2m listing remains separately labelled as asking evidence.

Reasoning: Do not call the listing a completed sale. The exercise stipulates compatibility and equal transaction reliability rather than a universal averaging rule.

Case 4 Audit the existing-work cost model

Question: Compatible land 4m, replacement of existing work 3m, distinct physical loss 0.3m and functional loss 0.2m. No unbuilt work in cost base.

Solution: Existing improvements =2.5m; land plus improvements =6.5m.

Reasoning: 4+3−0.3−0.2 =6.5, not 7.5. The base describes existing works, not a completed property.

Case 5 Label the income and bridge outputs

Question: Completed-and-let scenario rent 0.9m less expenses 0.18m, at 8%. Separate distinct present-value allowances: completion 1m, carrying 0.3m, residual risk 0.2m.

Solution: NOI 0.72m; completed-scenario indication 9m; restricted bridge 9−1−0.3−0.2 =7.5m.

Reasoning: The scenario changes actual unfinished/vacant condition. The bridge needs its own support before use as evidence for the actual interest.

Case 6 Test the claimed reconciliation

Question: The flawed extract says equally averaging 6.8m, 6.5m and 7.5m gives 9m. What can an arithmetic reviewer conclude?

Solution: The arithmetic mean is 6.933333m. The stated 9m is wrong; even the corrected mean does not justify equal weighting or combining incompatible scenarios.

Reasoning: A mathematical correction is narrower than a value conclusion. Relevant evidence and scope must support reconciliation.

Case 7 Evaluate the inspection limitation

Question: E-03 records exterior-only access. The report claims full inspection and internal engineering certification, but no engineering report exists.

Solution: Correct the factual misstatements; investigate the material internal condition and obtain appropriate evidence. Withhold an unconditional final opinion under the case's stated materiality.

Reasoning: Adding a generic disclaimer or removing only the engineer's name does not establish the missing condition evidence.

Case 8 Calculate a sensitivity without overclaiming

Question: Stipulated completed-scenario NOI 720,000, with rates 7.5%, 8% and 8.5%.

Solution: Indications are 9.6m, 9m and approximately 8.470588m.

Reasoning: The range shows specified input sensitivity. It is not a confidence interval or proof that the rate choices are all market-supported.

Case 9 Interpret the rubric and review scope

Question: Original eight-area scores are 0,0,1,1,0,0,0,1, each out of 3. Does totaling the score establish a new market value?

Solution: Total 3/24, or 12.5%. No. The rubric organizes review findings, and release-blocking issues separately control the disposition.

Reasoning: The reviewer has not independently completed a valuation. A reviewer-provided new value requires an appropriate valuation scope and reporting.

Case 10 Control a material revision

Question: An issued report's input changes after new inspection. The author replaces the PDF without retaining the old issue or identifying changes.

Solution: Preserve the prior issued version, document the new evidence and changes, reassess the model and conclusion, and communicate the revised issue and status appropriately.

Reasoning: A silent replacement weakens the evidence and reliance history. Retention follows the applicable requirements rather than an invented universal period.

18 Report and review worksheet

Suggested time: 45 minutes. Use the response lines for key points and separate paper for full calculations. Show intermediate subtotals and explain the stipulated evidence and scope.

1 Assignment and dates

Draft Tala's client/use/users, interest, actual-condition scope, currency and three-date schedule. Explain why the report cannot silently add every future bank or buyer.

_____

_____

_____

2 Evidence and identity

Prepare a five-item evidence register. Classify the 500sqm plan, 520sqm unverified sketch, exterior-only visit, verified transactions and asking price. Calculate the area difference and its limited diagnostic amount.

_____

_____

_____

3 Methods and scenario separation

Compute the 6.8m sales indication, 6.5m current-condition cost check, 9m completed income amount and 7.5m bridge. Explain which assumptions differ.

_____

_____

_____

4 Reconciliation and uncertainty

Calculate the equal average of 6.8m,6.5m,7.5m and the three rate-sensitivity amounts. Explain why neither calculation produces an automatically supportable final opinion.

_____

_____

_____

Report and review worksheet continued

5 Review the flawed extract

Identify at least eight issues in the supplied intentionally flawed extract. For each, state the contradicting fact or missing evidence, likely consequence and required correction.

_____

_____

_____

6 Apply the rubric

Score the eight original review areas, total the supplied teaching score and identify three release-blocking issues. Distinguish arithmetic, editorial and investigation corrections.

_____

_____

_____

7 Write the corrected extract

Draft a short corrected communication using the stated dates, actual condition, source status, corrected models and preliminary 6.8m indication. Withhold the unsupported unconditional final opinion.

_____

_____

_____

8 Compliance and issue control

Explain process review versus value review and when a reviewer's new figure becomes valuation work. Draft an issue/retention record and identify why a compliance statement and credentials must reflect actual work and authority.

_____

_____

_____

19 Review and examination checks

Distinction	Examination check
Report and workfile	Communication and supporting evidence both matter
Client and intended users	Reliance scope is defined rather than universal
Value inspection and issue dates	Different roles recorded consistently
Rights and physical property	The valued interest and assets are identified
Plan and GIS area	Source status preserved and discrepancy investigated
Sale and asking price	Transaction type disclosed accurately
Existing and completed condition	Different scenarios separately identified
Model arithmetic and support	Correct sums do not verify assumptions
Reconciliation and averaging	Weights require an evidence-based rationale
Assumption and limitation	Condition taken as given differs from missing investigation
Specialist claim and report	Only actual relevant findings attributed
Review and new valuation	A separately supplied reviewer value needs valuation support
Score and release gate	Material unsupported foundations control disposition
Compliance and boilerplate	Statement must match work and applicable edition
Revision and silent replacement	Issue history and new evidence preserved

Explain the reporting evidence chain

Define the assignment; identify and evaluate sources; document methods and assumptions; reconcile compatible evidence; communicate conclusion status and material limits; review the work within a stated scope; and preserve the issued and revised record.

20 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC examination items. Numerical examples use the supplied scope and assumptions. Record labels and evidence status remain important even where the arithmetic is correct.

1. An appraisal report should primarily connect:

A. The defined assignment, evidence, reasoning and conclusion

B. A decorative cover to the highest number

C. Every future user to unrestricted reliance

D. A signature to unverified facts

2. Valuation 30 Sep, exterior visit 4 Oct, report 12 Oct should be:

A. Treated as three different market values without analysis

B. All relabelled 12 Oct automatically

C. Omitted if the report is short

D. Identified as distinct dates serving distinct roles

3. A report for a named lender is changed to “all banks and future buyers.” The principal concern is:

A. An unsupported expansion of intended users and reliance scope

B. An arithmetic depreciation error only

C. A mandatory legal requirement

D. An automatic increase in property area

4. Plan area 500sqm and unverified GIS area 520sqm differ by:

A. 4sqm

B. 20sqm or 20%

C. 120sqm

D. 20sqm or 4% of the plan area

5. At the supplied diagnostic rate 6,000/sqm, the 20sqm difference gives:

A. A certified market-value increase automatically

B. PHP 120,000 as limited arithmetic sensitivity

C. PHP 12,000

D. Proof the GIS area is correct

6. Two equally reliable stipulated normalized sales 6.6m and 7.0m give a restricted indication:

A. PHP 13.6m

B. PHP 7.2m

C. PHP 6.8m

D. PHP 9m

7. The third observation 7.2m is an asking price. The report should:

A. Use it as final proof of market value

B. Call it a verified completed sale

C. Label its status separately

D. Delete its source history

8. Land 4m +existing work 3m −physical 0.3m −functional 0.2m gives:

A. PHP 7.5m

B. PHP 6.5m

C. PHP 7m

D. PHP 6.8m

9. Completed-scenario rent 0.9m less property expenses 0.18m gives NOI:

A. PHP 0.9m

B. PHP 0.72m

C. PHP 1.08m

D. PHP 0.18m

10. Completed-scenario NOI 0.72m capitalized at 8% gives:

A. PHP 7.5m automatically as-is

B. PHP 9m for that defined scenario

C. PHP 0.0576m

D. PHP 6.5m

11. Nine million less distinct present-value allowances 1m,0.3m,0.2m gives:

A. PHP 7.5m restricted bridge

B. PHP 9m current value without assumptions

C. PHP 6.5m

D. PHP 10.5m

12. The mean of 6.8m,6.5m and 7.5m is:

A. About PHP 6.933333m

B. PHP 9m

C. PHP 6.8m exactly

D. PHP 7.5m

13. Exterior-only access with material unknown internal condition is best addressed by:

A. Adding a signature without changing the evidence

B. Claiming full inspection anyway

C. Evaluating evidence sufficiency and obtaining or defining the required further work

D. Calling every limitation immaterial

14. A specialist certification not present in the file should be:

A. Retained because it sounds professional

B. Removed as an unsupported assertion and the required evidence investigated

C. Attributed to the client’s preferred engineer

D. Treated as a mere spelling issue

15. Sensitivity at several stipulated rates is:

A. Proof every rate is market-supported

B. A confidence interval automatically

C. An input-response analysis with stated assumptions

D. A guarantee of the final price

16. A reviewer who independently supplies a new value must:

A. Assume the original author signs it

B. Treat the number as only an editorial change

C. Rely on the review title to avoid valuation support

D. Address the appropriate valuation scope and reporting

17. A high rubric score with a false material inspection claim means:

A. The workfile can be destroyed

B. The score cancels the misstatement

C. The report is automatically compliant

D. The release-blocking issue must still be resolved

18. The eight original scores 0,0,1,1,0,0,0,1 total:

A. 3/24 or 12.5%

B. 8/24

C. 3/8 as the maximum score

D. 24/24

19. An exposure draft proposed for a future IVS edition should be:

A. Used to erase earlier report versions

B. Automatically treated as currently effective

C. Distinguished from operative requirements for the assignment

D. Called national law without verification

20. A defensible record-retention approach is to:

A. Keep only the cover page

B. Assume a universal one-year destruction rule

C. Delete all rejected alternatives immediately

D. Apply the relevant legal regulatory authoritative and contractual requirements

21 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	A	11	A
2	D	12	A
3	A	13	C
4	D	14	B
5	B	15	C
6	C	16	D
7	C	17	D
8	B	18	A
9	B	19	C
10	B	20	D

1. A The reader needs to understand what is valued and why the evidence supports the result.
2. D Inspection and issue dates do not automatically replace the date of value.
3. A The change affects the assignment and reliance rather than merely wording.
4. D 20/500 ×100 =4%. The source difference still needs investigation.
5. B 20 ×6,000 =120,000; this does not establish which area is valid.
6. C Their supplied equal-weight arithmetic is 6.8m; the exercise establishes the restricted model.
7. C An asking observation is a different evidence type from a completed transaction.
8. B The correct sum is 6.5m within the specified existing-work model.
9. B NOI =0.9−0.18 =0.72m under the supplied property stream.
10. B 0.72/0.08 =9m; its condition must remain identified.

Answer explanations continued

11. A 9−1−0.3−0.2 =7.5m. Applicability to the actual interest still needs support.

12. A 20.8/3 =6.933333m; correct arithmetic does not justify equal weighting.

13. C A material gap needs an appropriate investigation or scope/conclusion response.

14. B A professional label cannot substitute for an actual relevant specialist report.

15. C Sensitivity explores changes in specified inputs; it does not establish statistical coverage or market support.

16. D The selected IVS distinction treats a reviewer-provided value as valuation work.

17. D Original review scores do not compensate for critical unsupported foundations.

18. A Eight areas at three maximum points give 24; the supplied score total is 3.

19. C Identify publication status and effective date before treating a proposed rule as applicable.

20. D Retain issued and necessary supporting documentation under the applicable requirements rather than an invented universal period.

Worksheet model responses

Response 1

Name the fictional appointing client and identified lender; define financing consideration of the ownership interest in 800sqm land and existing unfinished improvements. PHP, market-value basis, actual condition at 30 Sep 2026; exterior visit 4 Oct; review memorandum 12 Oct. Changes to intended users or use require an appropriate agreed scope.

Response 2

E-01 instruction; E-02 property documents and plan; E-03 exterior-only site record; E-04 market records with verified-sale and asking status; E-05 cost analysis. Area gap 20sqm =4% of plan area; at diagnostic 6,000/sqm gives 120,000. Keep source versions and verification status; the sketch is not certified by this calculation.

Response 3

Equal stipulated verified sales: (6.6+7.0)/2 =6.8m. Cost: land 4m +existing work 3m −0.3m −0.2m =6.5m. Completion NOI 0.9−0.18 =0.72m; /8% =9m; bridge minus 1m,0.3m,0.2m =7.5m. Completed-and-let condition differs from actual unfinished/vacant condition.

Response 4

Mean =(6.8+6.5+7.5)/3 =6.933333m. NOI 720,000 divided by 7.5%,8%,8.5% gives 9.6m,9m,8.470588m. Correct arithmetic does not establish method weights, compatible premises, supported inputs or resolve material interior evidence. Sensitivity is not statistical confidence.

Response 5

Issues include broad users/use, confused dates, unsupported GIS certification, false full-inspection statement, assumed completion/letting, listing mislabelled as sale, cost arithmetic, omitted scenario bridge, false reconciliation, invented specialist certification, unsupported no-uncertainty/compliance claim and arbitrary retention. Preserve each finding's evidence and required action.

Response 6

Scores 0,0,1,1,0,0,0,1 total 3/24 =12.5%. Changed actual condition, contradicted inspection and unsupported compliance are release-blocking here. Date-label clarity is editorial; wrong sums are model errors; missing material internal evidence requires investigation. A rewritten paragraph alone cannot resolve the third category.

Response 7

Identify actual unfinished/vacant condition and the exterior-only visit; distinguish plan and sketch areas and the two verified transactions from the asking observation. State preliminary sales indication 6.8m and cost check 6.5m; separately label completed 9m and bridge 7.5m. Withhold an unconditional final opinion pending material condition and source review; make no blanket compliance assertion.

Response 8

A process review and a value reasonableness review have defined scopes; a separately supplied reviewer value is valuation work requiring its own support/reporting. Record report ID, source version, dates, findings, evidence changes, author/reviewer and issue status. Retain issued and supporting records under applicable requirements; use genuine professional particulars and supported compliance statements.

22 Essential terms and calculation review

Report Written communication of the assignment analysis and conclusion.

Documentation Supporting record of evidence work judgments and decisions.

Intended use The defined decision or purpose supported by the work.

Intended user Identified party within the applicable reliance scope.

Valuation date Date at which the defined value inquiry is made.

Inspection limitation Material restriction on observation or investigation.

Special scenario Explicit changed condition separately analyzed.

Reconciliation Reasoned assessment of compatible indications and reliability.

Process review Review of the valuation process or compliance question.

Value review Review of the reasonableness of value within a stated scope.

Issue control Identification of version status authorization and changes.

Release-blocking issue Material unsupported foundation requiring resolution here.

Original teaching check	Calculation or conclusion
Area discrepancy	520 −500 =20sqm; 20/500 =4%
Limited area amount	20sqm ×6,000 =120,000 PHP
Restricted sales indication	(6.6m +7.0m)/2 =6.8m
Existing-work cost	4m +3m −0.3m −0.2m =6.5m
Completed property NOI	0.9m −0.18m =0.72m
Completed income indication	0.72m /8% =9m
Restricted bridge	9m −1m −0.3m −0.2m =7.5m
Arithmetic-only equal mean	(6.8m +6.5m +7.5m)/3 =6.933333m
Original rubric score	3/24 =12.5%; critical issues override score

These calculations belong to different defined inquiry stages. Their accuracy does not establish input verification, compatible assumptions, professional compliance or release of an unconditional final value.

23 Sources and preparation status

Research reviewed on 12 October 2026. The Tala file, report template, flawed extract, repaired communication, rubric, cases and questions are original educational work. They are not actual or recalled PRC examination items. Selected international reporting concepts and Philippine professional-law provisions were checked; the chapter does not certify a complete PVS assignment audit.

1 IVSC documentation and reporting

IVSC-authored redline effective 31 January 2025, hosted by ICAEW. Current IVS 106 sections 10–40 on printed pages 74–78 were visually distinguished from deleted wording. Selected documentation, reporting and review concepts were checked.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

2 Philippine real estate service law

RA 9646 sections 3 and 38: written appraisal reporting and professional particulars on practice documents. Actual practice also requires the operative professional, ethical and national standards framework.

https://lawphil.net/statutes/repacts/ra2009/ra_9646_2009.html

3 Future standard proposal status

IVSC 2026 consultation page identifies proposed updates intended for publication in 2027 and effectivity in 2028. The proposals are not treated as operative requirements in this lesson.

https://ivsc.org/consultations/ivs-exposure-draft-for-consultation-2026/

REALEX

Lesson 35

Current Developments and Dated Legal Updates

Comprehensive study lesson for the Philippine Real Estate Appraiser Licensure Examination

2027 preparation edition • Fixed research cutoff 12 October 2026

A current-events answer must identify what changed, its authority, its applicable date and its effect on the appraisal inquiry. This lesson connects dated rules and official information to tax models, property research, development assumptions and answer revisions.

The chapter contains original theory, ten dated agency briefs, a content revision register, ten worked cases, an eight-task two-page worksheet and twenty original questions with explained answers. It covers PRC, DOF, BLGF, BIR, DHSUD, DAR, BSP, SEC, PSA and NAMRIA.

The printed edition preserves its cutoff. Policy and standards proposals remain labeled proposals. The Amihan file, model inputs and all exercises are fictional teaching material; they are not verified local tax rates or actual PRC questions.

Your learning goals

- Distinguish laws rules standards announcements and proposals.
- Separate effectivity reference valuation and research dates.
- Test transitions and locality-specific implementation.
- Explain valuation reform without conflating value and tax.
- Evaluate the relevance of a revised statistical series.
- Distinguish a narrow waiver from abolished requirements.
- Use census and mapping evidence within their scope.
- Verify development corporate and agrarian records separately.
- Prepare an original dated update brief.
- Revise dependent answers while preserving historical versions.

Study plan: Allow five hours in two sessions. Read sections 1–8 for status, timing and fiscal or statistical changes, then 9–16 for evidence and revision control. Review the agency briefs before the cases, worksheet and test. Prerequisite themes are standards, statistics and valuation reform.

1 Current events as an appraisal competency

A useful current-events answer states what changed, who has authority, when the change applies and what it changes in the valuation inquiry. A headline alone cannot establish a legal entitlement or a market adjustment. An appraiser must connect the development to an identifiable property interest, decision and date. This lesson therefore treats updating as an evidence task: inspect the source, classify its status, test its applicability and revise only the conclusions that the evidence affects.

Consider a proposed tax reform, a revised statistical series and a new planning map. Each may be important, but each answers a different question. The proposal describes a possible future rule. The statistical series measures a defined market segment. The map describes spatial information within its scale and provenance. Combining them into a statement that all local properties have appreciated would skip the essential analysis. The competent answer preserves these distinctions before estimating any effect.

The July 2026 PRC examination program expressly includes current events under Professional Appraisal Practice. Its first page also identifies standards, real property laws, research, mathematics, taxation and GIS. That verified program explains why updating connects to earlier lessons. It does not establish a future examination date or guarantee that an original practice question will appear in the examination. The 2027 preparation label on this book is a study edition, not an official PRC announcement. [R01]

2 The fixed cutoff and the question date

This chapter has a fixed research cutoff of 12 October 2026. Every dated brief is read within that boundary. A printed chapter cannot silently absorb later regulations, court decisions, statistical revisions or official examination announcements. An answer that refers to this edition should carry the cutoff where its validity depends on current status. A later app release should retain the original book answer and identify the new version separately.

A cutoff is different from a valuation date. A valuation dated 30 June may require information about conditions at that date even when the report is prepared in October. Later evidence can help establish an earlier condition, but its availability does not make a later event occur earlier. For a historical legal question, check the rule applicable to the specified transaction or period. For a question about what is currently operative, check the current authoritative instrument and any transition provisions.

A dated question should specify enough facts to have one defensible answer. Replace “What is the latest tax rule?” with a question that names the instrument, relevant date, property category and stage of implementation. Where the primary record cannot establish whether a condition has been satisfied, the answer should identify the missing evidence. Do not convert research uncertainty into a confident negative claim. “No operative suspension instrument was established by this source” is narrower and more accurate than “No suspension can exist.”

3 Classify the source before using the claim

Use distinct categories for enacted legislation, operative implementing rules, issued standards, adopted local instruments, official statistics, proposals and explanatory announcements. A statute and its implementing instrument may both matter, but their functions differ. A circular that distributes an existing rule does not necessarily create a new tax rate. An official speech may explain policy direction without changing the operative text. A proposal remains a proposal until the relevant legal steps are established.

Source authority depends on the question. PRC is the source for examination programs and professional regulatory announcements. DOF and BLGF concern the valuation reform framework and its administration. BIR issues tax guidance within its mandate. DHSUD and DAR supply distinct development and agricultural-land records. BSP and PSA publish statistics with defined coverage. SEC supplies corporate registration information.

NAMRIA provides mapping products and services. A single official agency is not the authority for every property question.

After finding a source, read the operative clause and relevant exclusions rather than relying on its title. Record the document number, issuer, date, version and precise locator. Separate the issuer from the website hosting a copy. If a government document is hosted elsewhere, verify the document itself and its provenance. A search listing can help locate a source; it should not be represented as a complete review of a long instrument. These habits protect the update register from unsupported precision.

Source class	What it can establish	Further test
Statute and rules	Operative requirements within scope	Effectivity transition amendments
Local proposed instrument	Proposed content	Approval and application conditions
Official statistics	Measure for defined period and coverage	Vintage comparability relevance
Announcement or proposal	Policy statement or intended change	Final operative instrument
Portal or service page	Access or procedure with stated scope	Actual file and current live requirements

4 Dates and transition conditions

A rule can have an approval date, publication date, effectivity date, application start, expiration date and implementation milestones. These dates need separate fields. A deadline for an agency to perform an action does not prove that the action occurred. A consultation date is not an adoption date. An announced target for future standards is not the same as an operative standard. Always identify which date the question actually uses.

Transition provisions deserve their own analysis. Determine whether the new rule applies to transactions completed before effectivity, applications lodged afterward, continuing obligations or particular jurisdictions. A locally prepared schedule may still require review, approval, publication or another condition before it can support the asserted application. It is insufficient to find a recent document with the word “proposed” and treat its numbers as operative.

Construct an event record from documents rather than memory. For a fictional schedule, record preparation, submission, approval and evidenced effectivity separately. If publication evidence is absent, mark that field unresolved. If a later amendment changes the implementation rule, retain the earlier record and create a linked revision. This provides a way to answer both historical and current questions without rewriting the past. The application test concerns the facts at the relevant date, not whichever document has the newest filename.

5 Valuation reform and policy proposals

RA 12001 provides the valuation reform framework. Selected provisions distinguish schedule preparation and approval, tax impact analysis, tax uses and transition. BIR RMC 30-2025, issued 7 April 2025, circularizes the implementing rules. These are different source functions. The BIR digest confirms the circularization; it does not by itself establish a newly effective schedule for a particular locality. A property-specific answer needs the relevant operative records. [R02 R04]

The 11 July 2026 DOF explanation emphasizes that updated market values do not automatically determine the final real property tax bill. Assessment levels and tax rates remain important to the fiscal result. This is a useful

correction to the shortcut that a percentage change in a value base must produce the same percentage change in tax. The teaching calculations below isolate those components using supplied assumptions. [R03]

A separate 6 August 2026 official announcement describes a proposed temporary suspension of RPVARA implementation. The House later describes a measure seeking suspension of key provisions. These records establish policy proposals, not an enacted suspension on their own. This chapter does not turn the proposal into an operative amendment. A later answer must inspect the final authoritative instrument, its covered provisions and effective period. The same discipline applies to requests to extend a deadline: a requested extension is not evidence that an extension became law. [R05 R06]

6 Keep market value assessment and tax separate

Market value addresses a defined valuation inquiry. A schedule used for taxation is an administrative valuation input under its applicable framework. Assessed value incorporates the applicable assessment level. A tax calculation applies the relevant rate and other legally applicable components. A transfer-tax or internal-revenue inquiry can have a different base rule. These amounts cannot be substituted for one another merely because they refer to the same property.

In the fictional Amihan file, the supplied market-value base is PHP 4 million, the assessment level is 20% and the basic-tax rate is 1%. The restricted calculation is 4,000,000 × 20% × 1% = PHP 8,000. If the base changes to PHP 6 million and the other inputs remain unchanged, the restricted amount becomes PHP 12,000. If the supplied new assessment level is instead 12%, the amount is PHP 7,200. These are model outputs, not a statement of any locality's adopted levels or a complete tax bill.

The exercise demonstrates conditional reasoning. With constant multipliers, the change follows the base. With changed multipliers, it follows the complete product. Before advising on an actual bill, verify the property category, adopted rates, levies, exemptions, transition, baseline and relevant notices. When calculating a cap exercise, use the stipulated eligible component and period; never extend it to every year or every liability. In a valuation report, preserve the difference between a tax sensitivity and a final opinion of market value.

Supplied tax model	Value base PHP	Assessment level	Basic amount PHP
Original	4,000,000	20%	8,000
New base unchanged level	6,000,000	20%	12,000
New base revised level	6,000,000	12%	7,200

All rows use a supplied 1% basic rate. The table is a restricted teaching model; actual locally adopted inputs and other components require verification.

7 Statistical updates and BSP series changes

The BSP now publishes the Residential Property Price Index or RPPI. Its archive identifies the replacement of the earlier RREPI beginning with the Q1 2025 release. The current series uses a hedonic regression approach. Its technical notes describe data from housing loans reported by universal and commercial, thrift and digital banks; cash purchases, non-bank transactions and socialized housing are outside the stated index generation coverage. An update therefore involves methodology and coverage, not just an abbreviation. [R07 R08]

Before using a series, identify the geography, property type, period, units, base and methodology. Do not splice index levels from different bases without a supported link. Do not compare a year-on-year percentage with a quarter-on-quarter percentage as though their reference periods were identical. Check whether a

revision changed an older published observation. Retain the value and vintage used in the analysis so the reasoning can be reproduced.

A fictional compatible index moving from 120 to 126 implies 126/120 − 1 = 5%. A PHP 2 million observation becomes PHP 2.1 million under an explicitly justified indexing model. That arithmetic does not establish that a particular property appreciated by 5%. A subject's location, condition, legal interest, use and transaction evidence still need investigation. The national residential index is especially unsuitable as an automatic escalator for provincial agricultural land or commercial rental property. Its appropriate role may be contextual evidence rather than the selected adjustment.

8 An amendment can change one requirement

BSP Memorandum M-2025-026 renames the index and records a waiver of notarization for specified bank quarterly reporting submissions. The revised provisions retain authorized signatures and submission requirements. This creates an instructive update question: removing notarization is not the same as removing the report, the signatory or the deadline. The scope concerns the identified reporting banks and forms, not every private appraisal or property document. [R09]

Use a before-and-after comparison at the requirement level. List the element changed, the elements retained and the covered population. A reviewer should test whether the revised answer has expanded the waiver beyond its source. If an older flashcard said the specified submission required both signature and notarization, the changed element needs revision. The rest of the answer may remain correct. Preserve the old flashcard's period rather than describing it as always false.

This method is useful for many legal updates. A shorter processing period does not abolish substantive eligibility. An electronic submission option does not waive the supporting evidence. A revised ceiling does not establish market demand. A new database does not make all records public. The app should carry separate dependencies for each claim, allowing a verified amendment to change the affected element without contaminating unrelated lessons.

Amendment comparison	Question to record
Changed	Which precise requirement or input changed
Retained	Which signatures submissions and other duties remain
Covered	Which persons forms properties and periods apply
Linked	Which questions models and report paragraphs depend on it

9 PSA population updates and demand analysis

PSA's July 2025 release reports a 2024 census population of 112,729,484 as of 1 July 2024, declared official through Proclamation 973 dated 11 July 2025. The release date and reference date are different. A printed 2020 figure may remain correct for a historical 2020 question while needing replacement in a question asking for the newer census baseline. The number should never be presented as a headcount measured on this chapter's October 2026 cutoff. [R10]

Population is a context variable, not a direct estimate of effective housing demand. A market study must investigate household formation, household size, income, migration, tenure, affordability, vacancies and competing supply. A rise in population does not prove that a specific subdivision can sell its proposed units at the target price. A national count cannot replace a municipality's catchment analysis. Distinguish total population from household population and keep geographical boundaries consistent.

For teaching, a fictional catchment increases from 50,000 to 54,000 persons: 8% total growth. If household size is stipulated at four persons in both periods, the simplified household equivalents move from 12,500 to 13,500. The additional 1,000 equivalents are not 1,000 guaranteed sales. The calculation omits occupied supply, vacancies, purchasing capacity and tenure choices. The app answer should explain the limits as well as the arithmetic; an update to the denominator can change the model without establishing the forecast.

10 Development approvals and agricultural land

DHSUD's official CR/LS guidance directs buyers to ask for the certificate of registration and license to sell and verify the project with the regional office. That is a verification route, not proof that an individual project has permission. The presence of a company registration, advertisement or attractive plan does not answer the project-specific question. An appraisal of development land must identify the approvals supporting the assumed use and the costs or delays still required. [R11]

A recent housing policy announcement can flag the need to inspect the operative circular. A headline ceiling should not be inserted into a development model before matching project type, unit specification, application timing and transitional treatment. A ceiling is not an observed sale price or a guarantee of financing eligibility. If the full operative instrument has not been checked, leave the exact regulatory input unresolved and analyze a clearly labeled supplied scenario instead.

DAR's 9 August 2025 response to a land-conversion requirements request directs the requester to the relevant field office. The record does not grant a conversion order or supply a universal completed-approval checklist. The original learning task here is to distinguish the required authority from the evidence actually in the property file. A reclassification, zoning label or lapse of a transfer restriction must not be treated as a substitute for every approval applicable to the proposed use. Verify the land's agrarian status and the precise applicable conversion or exemption records. [R12]

11 Corporate registration and the property interest

The SEC learning portal identifies ZERO processing and a notice starting 7 April 2025 for domestic stock corporations, with lending and financing companies excepted. It also describes credentialed eSECURE users and electronic authentication. The portal is a process source with stated coverage; it should not be interpreted as a promise that every entity follows the same route or has completed registration. The cutoff record should state the dated notice and the page's role. [R13]

For appraisal, a registered company's existence is only one part of the inquiry. Verify the legal entity, the authority of the person giving instructions, the owner of the defined property interest and the documents supporting any proposed transfer. Company incorporation does not itself convey a property owned by the shareholder. A corporate certificate also does not replace a project license, land-use approval or title investigation. Keep an asset valuation separate from a valuation of corporate shares or a going-concern business.

In a fictional instruction to value "all property of Amihan OPC," define whether the client wants a particular land interest, a property portfolio or equity in the company. Confirm the relevant liabilities and exclusions before choosing methods. A process update may reduce administrative friction, but it does not justify assuming a zero transfer cost, instantaneous conveyance or clean title. These are separate inputs requiring separate support.

12 Mapping updates and evidence scale

NAMRIA's eMapa service allows requests or purchases of maps, charts and publications available through its map sales offices. A portal creates an access route. It does not automatically certify an applicant's parcel

boundary, ownership or building area. A newly retrieved map may depict older source information. Record production date and underlying data date separately from download date. [R14]

Map interpretation begins with layer provenance, coordinate reference system, scale, resolution and coverage. A visual overlay can help investigate a risk, but pixel alignment is not a legal boundary determination. A hazard layer can prompt specialist investigation; its color does not directly yield a precise valuation discount. A planning map needs the adopted instrument relevant to the use question. Record uncertainties where a general layer is being used for a parcel-level inference.

Suppose two fictional sketches show 1,000 and 1,040 square meters. The difference is 40 square meters, or 4% of the first area. At a diagnostic PHP 3,000 per square meter, the difference amounts to PHP 120,000. Neither the subtraction nor the multiplication proves that the larger area is legally correct. The appropriate next step is to reconcile the relevant approved survey and property records. This is the same evidence discipline used for report review in Lesson 34, now applied to changing spatial sources.

13 Standards proposals technology and environmental inputs

IVSC's 2026 consultation describes proposed changes with intended publication in January 2027 and effectivity in January 2028. The consultation addresses developments including technology, artificial intelligence, sustainability and quality control. The proposed edition must be distinguished from the operative standards for the assignment and the applicable Philippine framework. A discussion of a future international edition does not automatically amend national requirements. [R15]

Technology can improve data handling while creating new verification tasks. An automated model needs defined purpose, relevant observations, input checks, model assessment and review of the output. A generated explanation cannot authenticate a nonexistent transaction or prove that a cited rule became effective. Preserve source records and the version of each material model input. Use a numerical output as an analytical result within its scope, not as a substitute for professional judgment.

Environmental and social developments should be connected to relevant evidence. Investigate how an identified risk or feature affects permissible use, rent, vacancy, cost, useful life, operating expenses or market participants' behavior. Do not insert the same general adjustment into several inputs and count it repeatedly. A proposed quality-control provision may be monitored for future adoption while existing evidence controls are applied now. The update brief should state which claims concern actual market evidence and which concern an anticipated standards change.

14 Correcting an answer without erasing history

A previously correct answer can need revision because the rule changed, a transition ended, a publication was superseded, a statistical series was rebased or the question asked for a newer reference period. An answer can also have been wrong from the beginning. Those situations need different labels. "Superseded from this effective date" preserves historical correctness. "Correction of an original error" records that the earlier edition lacked adequate support.

Use stable question identifiers. An answer letter is insufficient because reordering the choices can change the letter without changing the substance. Store the correct proposition and explanation as well as the letter. When a source changes, find every dependent question, worked example, formula note and report paragraph. Review the entire dependency chain rather than patching the most visible flashcard.

A clean revision record includes the old claim, new claim, reason, authoritative source, effective or reference date, affected content, reviewer, release date and status. Withdraw a question from current scoring if its premise is materially ambiguous pending verification. Keep it available as an archived historical exercise only when the date and explanation are explicit. A learner's earlier score should remain linked to the version taken. Regrading a changed item requires a stated rule; silent alteration makes progress comparisons unreliable.

Reason	Required treatment
Rule changed	New applicable version; preserve earlier dated validity
Data revised	Retain vintage; recompute dependent results
Original error	Correct and disclose the affected content
Choice order changed	Update letter while retaining substantive proposition
Material status unresolved	Withdraw current scoring pending verification

15 The original update brief and revision workflow

Each brief in this chapter has a source identifier, a dated finding, a status label, an appraisal implication and a recheck trigger. These fields prevent an announcement from being promoted into a rule by repetition. Use the same structure for a new legal or market update: identify the question; locate the competent source; read the relevant text; test application; explain the supported effect; list the linked content; approve and publish the revision.

The revision register later in this lesson is an original app-ready content-control specification. Its completed rows illustrate this chapter's cutoff findings; a blank entry allows future updates. It is not a claim that a live application has been updated or that monitoring is automated. A published app should expose its cutoff and question version so users can see which rule or dataset their answer uses.

Review depth should match materiality. Correcting a spelling error may need only editorial checking. Replacing a percentage requires recalculation. Changing the legal premise requires examination of the instrument and dependencies. Changing a property-specific conclusion may require new evidence and valuation work. Preserve the final reviewed release, not only the newest draft. The purpose of version control is to make each result reviewable and reproducible by another competent reader.

16 Examination technique and a sustainable update routine

Read the question's date and scope before recalling a fact. Identify whether it asks about law, standards, a proposal, statistics, implementation or the appraisal effect. Look for terms such as "all," "automatically," "current," "proposed," "approved" and "effective." Broad wording can reveal an unsupported extension. A good answer may require identifying the evidence needed, rather than choosing the newest number.

For calculations, state the supplied inputs and units first. Compute the product or ratio, then interpret it within the model. Percentage points measure the difference between two percentage rates; percentage change measures the difference relative to the original value. Index growth uses compatible levels and periods. A change in a tax base, population count or mapped area may alter a calculation while leaving the final valuation conclusion unresolved.

Maintain a brief manual watchlist organized by authority and decision. During preparation, review authoritative releases on a regular study schedule and before relying on a date-sensitive answer. Record verified changes and pending proposals separately. Close unresolved items when the required document is obtained. The practical goal is an accurate set of current propositions with a clear history. This lesson prepares you to bring those propositions into the integrated cases in Lesson 36 without losing the legal interest, valuation date and evidence scope.

17 Dated agency update briefs

Each original brief separates its finding from its implication. The fixed cutoff is 12 October 2026. An identified access or verification route is not evidence that a particular property satisfies the required conditions.

U35-01 PRC examination source

Source R01 | Program approved 2 March 2026 for 7 July 2026 examination

Status: Official examination program for the named examination

Finding: The program includes current events under Professional Appraisal Practice and refers to non-programmable calculator requirements. Keep this dated program separate from a future examination announcement.

Appraisal and recheck: Before final examination preparation, check the relevant official program, schedule, admission instructions and calculator list. Revise logistics fields only from the applicable release. A past program does not guarantee future dates or permissions.

U35-02 DOF valuation and tax impact

Source R03 | Official explanation published 11 July 2026

Status: Policy explanation of fiscal components

Finding: DOF explains that updated market values do not automatically force the final tax increase: assessment levels and tax rates remain part of the result.

Appraisal and recheck: Investigate the operative locality-specific inputs before modeling costs to an owner or buyer. Preserve market value, assessed value and tax as separate figures. Recheck on a new approved schedule, applicable ordinance or transition instrument; do not infer a uniform nationwide bill from a headline.

U35-03 BLGF framework and transition

Source R02 R16 | RA 12001 and IRR as circulated by BIR in April 2025

Status: Statutory and implementing framework with dated transition

Finding: The inspected IRR sections 54–57 address transitional tax bases, the first-year increase cap, amnesty and continuing schedules. Section 56 names 5 July 2026 for the original amnesty window.

Appraisal and recheck: At the October cutoff, that original window alone cannot support a newly available amnesty. Check any claimed extension, actual eligibility and payment records. The relief concerns penalties, surcharges and interest, with exclusions; it does not make principal tax disappear. A deadline also does not prove every locality completed its new schedule.

Dated agency briefs continued

U35-04 BIR circularization

Source R04 R16 | RMC 30-2025 issued 7 April 2025

Status: Issued circular distributing implementing rules

Finding: The official digest and circulated document identify the IRR attached to the circular. Circularization is distinct from the property-specific evidence needed to select a tax base.

Appraisal and recheck: For a current tax question, inspect the applicable rule, transaction facts and relevant approved schedule or transition. Preserve the source locator and separate base from rate. Recheck when a new BIR issuance or qualifying schedule changes the applicable analysis; do not infer a new universal rate from this circular's title.

U35-05 DHSUD project verification

Source R11 | Official CR/LS guidance retrieved for the 12 October 2026 cutoff

Status: Verification guidance rather than a project approval

Finding: DHSUD directs the public to request project certificate of registration and license to sell and confirm registration with the regional office. This source supports that route; it does not establish a specific project's current status.

Appraisal and recheck: Verify the actual project and applicable coverage before assuming authorized sales in a development scenario. Regulatory ceiling changes require their full operative circular and matching specifications. Recheck on a new or amended project record. No exact new housing ceiling is asserted from an unreviewed headline in this chapter.

U35-06 DAR agricultural use records

Source R12 | DAR response dated 9 August 2025 to a 7 July request

Status: Agency response identifying the field-office route

Finding: The response refers land-conversion requirements to the relevant DAR field office. It does not supply a conversion approval for the requester or a complete universal checklist.

Appraisal and recheck: A proposed residential use requires investigation of applicable agrarian and land-use records. Ask for the precise conversion, exemption or other relevant determination and its conditions. Recheck when a new official order changes the property's permitted use. Company registration or a planning label alone cannot establish that every use constraint is resolved.

Dated agency briefs continued

U35-07 BSP index and procedural change

Source R07 R08 R09 | RPPI replaces the earlier series beginning Q1 2025; M-2025-026 records a 26 June 2025 Monetary Board decision

Status: Statistical methodology and specified reporting amendment

Finding: The current RPPI uses hedonic estimation and defined bank housing-loan coverage. The memorandum also waives notarization for specified reports while retaining other requirements.

Appraisal and recheck: Separate statistical and procedural dependencies. A series change triggers checks of labels, coverage, comparability and model justification. A reporting amendment triggers focused revision of the affected requirement. Recheck the release vintage and technical notes before using an index; a waiver is not a value adjustment.

U35-08 SEC electronic process

Source R13 | Portal notice starting 7 April 2025; reviewed at cutoff

Status: Published process information with stated company coverage

Finding: The SEC learning portal describes ZERO processing for domestic stock corporations, except lending and financing companies, and credentialed electronic authentication. It is used here to illustrate process coverage, not completed registration.

Appraisal and recheck: Verify the actual entity and representative authority in an engagement. Registration does not convey shareholder-owned land or certify project permissions. Recheck the current live filing instructions before an actual application and revise process guidance within its stated scope.

Dated agency briefs continued

U35-09 PSA census vintage

Source R10 | Reference 1 July 2024; declaration 11 July 2025; release 17 July 2025

Status: Official census count for the stated reference date

Finding: The count is 112,729,484 persons. Keep total population separate from household population, household counts and projected purchasers.

Appraisal and recheck: Update a question asking for this census baseline while retaining historical questions about prior censuses. Market demand still requires catchment, affordability, supply and household evidence. Recheck revisions or later official releases; do not date the count by the day it was downloaded.

U35-10 NAMRIA access and map evidence

Source R14 | eMapa service reviewed at the 12 October 2026 cutoff

Status: Official mapping access route

Finding: eMapa enables requests or purchases of NAMRIA maps, charts and publications. The service page establishes access, not the age, legal authority or parcel precision of a selected layer.

Appraisal and recheck: Record layer owner, source date, scale, coordinates and purpose. Reconcile parcel evidence through the appropriate approved survey and property records. Recheck a replaced layer or new survey and investigate material discrepancies. A newer download does not by itself justify a changed legal area or value.

18 Original content revision register

The following completed entries are the chapter's reviewed content-control records. They specify app revision behavior; they do not claim that a live app has already been changed. Keep source status, applicability and unresolved proposals visible.

Record	Prior claim	Reviewed treatment	Source
RV35-01	BSP index label and method	Use RPPI; check methodology and coverage	R07 R08
RV35-02	Specified reports need notarization	Waiver is scoped; signatures retained	R09
RV35-03	Count treated as current 2026	Use 1 July 2024 reference date	R10
RV35-04	Suspension announcement	Proposal; operative amendment unestablished by these records	R05 R06
RV35-05	Future IVS consultation	Proposal intended for future edition	R15

RV35-01 Applicability: Q1 2025 series; cutoff reviewed. Dependencies: L35-Q12; theory 7. Status: Reviewed book entry.

RV35-02 Applicability: M-2025-026; covered submissions. Dependencies: L35-Q13; case 6. Status: Reviewed book entry.

RV35-03 Applicability: 2024 POPCEN; release July 2025. Dependencies: L35-Q14; case 7. Status: Reviewed book entry.

RV35-04 Applicability: 2026 announcements. Dependencies: L35-Q01; theory 5. Status: Watchlist.

RV35-05 Applicability: 2026 consultation; intended 2028 effectivity. Dependencies: L35-Q18; theory 13. Status: Watchlist.

Future revision entry

Stable content ID and prior version [record]

Old claim and reviewed new claim [exact propositions]

Authority source locator and relevant dates [attach evidence]

Reason and affected dependencies [rule data error or editorial]

Reviewer release date status and attempt treatment [record]

Retain the fixed book cutoff and show the live release's own revision date. Keep prior attempts attached to the original question version. A watched proposal is not promoted to an operative answer until the required authoritative evidence is reviewed.

19 Ten worked update cases

Attempt each question before reading the solution. Cases stipulate the needed calculation premises. Identify the legal or evidence status separately from the arithmetic result.

Case 1 Classify the suspension announcement

Question: The file contains the 6 August 2026 announcement describing a proposed RPVARA suspension. A learner changes the answer to “the law is suspended.” Is that supported?

Solution: No. The announcement establishes a proposal. Obtain the operative instrument and its scope, effective period and transition before applying an enacted suspension.

Reasoning: A policy request does not itself complete the legal change. Preserve the proposal in the watchlist without rewriting operative answers from that record alone.

Case 2 Separate the fiscal inputs

Question: Amihan’s supplied value base rises from PHP 4m to PHP 6m. The old assessment level is 20% and basic rate 1%; the new supplied assessment level is 12%, with the same rate. Calculate each restricted basic amount.

Solution: Old: 4,000,000 × 0.20 × 0.01 = PHP 8,000. New: 6,000,000 × 0.12 × 0.01 = PHP 7,200. Change: −PHP 800, or −10%.

Reasoning: The base rose 50%, but the restricted tax model fell 10%. This is a supplied sensitivity, not proof of any adopted local rate or complete liability.

Case 3 Apply a stipulated first year cap

Question: A qualifying tax component has an evidenced baseline of PHP 10,000 and uncapped model amount PHP 14,000. The exercise stipulates a valid first-year 6% increase cap and no other adjustments. Calculate the capped amount.

Solution: Maximum = 10,000 × 1.06 = PHP 10,600. Restricted payable amount = min(14,000, 10,600) = PHP 10,600; reduction from uncapped amount PHP 3,400.

Reasoning: The assumptions establish eligibility for this calculation. Actual application requires the correct component, baseline, effective schedule and period; this does not impose a perpetual cap.

Case 4 Preserve the transition rule

Question: A historical exercise expressly states that no updated SMV is available. Supplied existing SMV is PHP 3.2m, zonal value PHP 4.1m and transaction price PHP 3.8m. It stipulates the transition highest-of rule. Find the model base.

Solution: max(3.2m, 4.1m, 3.8m) = PHP 4.1m.

Reasoning: The result answers the supplied base question only. It is not an appraisal conclusion, tax rate or universal rule for transactions after a qualifying new schedule applies.

Case 5 Use a compatible index

Question: A justified fictional residential indexing model has levels 120 and 126 and an earlier observation PHP 2m. Calculate the change and indexed amount.

Solution: Growth = 126/120 − 1 = 5%. Indexed amount = 2,000,000 × 126/120 = PHP 2,100,000.

Reasoning: Justification is stipulated for this model. Using a real national RPPI on an unrelated agricultural parcel would require a separate relevance analysis.

Case 6 Read a narrow waiver

Question: An old flashcard says specified BSP bank quarterly reports require signature and notarization. M-2025-026 changes notarization. The revised card says no report needs a signature. Repair it.

Solution: For the covered submissions, remove the notarization requirement while preserving authorized-signature and submission requirements.

Reasoning: A change to one procedural element does not cancel the others or govern all appraisal documents.

Case 7 Update the census baseline

Question: An answer says 112,729,484 is the Philippines population measured on 12 October 2026. Correct its time label.

Solution: It is the 2024 POPCEN count as of 1 July 2024. The referenced PSA release is dated 17 July 2025 and refers to Proclamation 973 dated 11 July 2025.

Reasoning: Reference date, declaration, release and research cutoff are separate. This does not supply a current October 2026 measured count.

Case 8 Investigate spatial discrepancy

Question: A source sketch shows 1,000sqm and a portal sketch 1,040sqm. At a stipulated diagnostic PHP 3,000/sqm, calculate discrepancy and amount; decide whether the larger area is certified.

Solution: Difference 40sqm = 4% of 1,000sqm. Diagnostic amount 40 × 3,000 = PHP 120,000. No certification follows.

Reasoning: Reconcile authoritative survey and property records. A current download date does not verify the underlying boundary or legal area.

Case 9 Test approvals independently

Question: Amihan OPC has a corporate certificate and a site advertisement. The file lacks verified project CR/LS and relevant land-use records. Can incorporation support the assumed approved residential project?

Solution: No. Verify the entity and instruction authority separately from the project registration/license and applicable land-use or agrarian records.

Reasoning: Different agencies answer different questions. An entity’s existence is not evidence that a specific project’s approvals are complete.

Case 10 Repair the app revision

Question: Question L35-Q13 version 1 uses an obsolete procedural requirement. An editor overwrites its answer letter without keeping the old version or affected scores. What should be recorded?

Solution: Retain version 1; document the old and new propositions, source, applicable date, affected items, review and release. Publish a new version and keep attempts linked to the version taken.

Reasoning: A letter alone cannot identify substantive correctness when choices are reordered. A changed rule, an original error and an editorial change require distinct records.

20 Dated update worksheet

Suggested time: 45 minutes. Use the lines for key points and separate paper for full calculations and source records. Show units, assumptions and the implications of unresolved evidence.

1 Source status and dates

Classify RA 12001, BIR RMC 30-2025, the 2026 suspension proposal, a proposed local schedule and IVSC's 2026 exposure draft. Separate approval, effectivity, reference and cutoff dates.

_____

_____

_____

2 Tax input sensitivity

Calculate the PHP 4m × 20% × 1% and PHP 6m × 12% × 1% cases. Explain why a 50% base increase does not force a 50% bill increase.

_____

_____

_____

3 Transition and cap

Calculate the highest of PHP 3.2m, PHP 4.1m and PHP 3.8m under the stipulated transition model. Separately apply a stipulated 6% first-year cap to PHP 14,000 using PHP 10,000 baseline.

_____

_____

_____

4 Statistics and reference period

Calculate growth from fictional index 120 to 126 and index PHP 2m. State the limitations of applying real RPPI data to agricultural land and correctly date the 112,729,484 census count.

_____

_____

_____

Dated update worksheet continued

5 Development and corporate evidence

Prepare separate evidence requests for entity/instruction authority, project CR/LS and agricultural-land use status. Explain why one certificate cannot answer all three.

_____

_____

_____

6 Map discrepancy and diagnostic amount

Calculate the difference between 1,000sqm and 1,040sqm, the percentage on the first area and the amount at PHP 3,000/sqm. Identify what must establish legal area.

_____

_____

_____

7 Write an original dated brief

Draft a five-sentence brief on M-2025-026. State source, changed requirement, retained requirement, covered population and a content revision trigger.

_____

_____

_____

8 Version and score control

Draft a revision entry for a procedural answer that changes. Include old/new claim, source, applicable date, dependencies, review and release; state how prior attempts are preserved.

_____

_____

_____

21 Examination checks and agency routing

Authority	Question or record to verify
PRC	Applicable program schedule admission and regulatory instructions
DOF	Valuation policy and applicable fiscal framework
BLGF	Valuation reform schedules implementing guidance and records
BIR	Tax issuance and applicable transaction-base treatment
DHSUD	Project CR/LS and applicable development requirements
DAR	Agrarian status and relevant use determination
BSP	Statistical methodology and specified bank reporting rules
SEC	Entity registration and electronic process coverage
PSA	Reference period geography denominator and data vintage
NAMRIA	Map product provenance scale coordinates and data date

Before revising an answer

- Identify the precise proposition and question date.
- Read the competent primary source and relevant conditions.
- Classify proposal operative rule data or verification route.
- Compare changed and retained requirements.
- Recompute dependent results within their supplied models.
- Review all linked content and preserve prior attempt versions.

22 Original practice test

Choose one best answer. Suggested time: 35 minutes. These newly authored questions are not actual or recalled PRC items. Date-sensitive answers refer to the stated source and the fixed cutoff; numerical assumptions are supplied for learning.

1. A 2026 official announcement describes a proposed suspension. On that source alone, the best classification is:

A. An enacted repeal

B. A policy proposal requiring an operative instrument before application

C. A completed local schedule approval

D. A market transaction

2. The chapter's 12 October 2026 research cutoff is:

A. The valuation date of every case

B. The effectivity date of every law

C. The boundary of this edition's researched status

D. The census reference date

3. A local schedule is labeled proposed. The app should:

A. Verify its approval and application conditions before using it as operative

B. Delete the existing schedule automatically

C. Use it as a verified completed sale

D. Immediately treat every figure as operative

4. BIR RMC 30-2025 is identified by the checked digest as:

A. Certifying every parcel boundary

B. Granting every project a license to sell

C. Circularizing RA 12001's implementing rules

D. Setting one universal private appraisal value

5. Under supplied inputs PHP 4m, 20% assessment level and 1% basic rate, the restricted amount is:

A. PHP 800

B. PHP 80,000

C. PHP 800,000

D. PHP 8,000

6. Under PHP 6m, 12% assessment level and 1% basic rate, the restricted amount is:

A. PHP 720,000

B. PHP 12,000

C. PHP 72,000

D. PHP 7,200

7. PHP 8,000 changes to PHP 7,200. The percentage change is:

A. +10%

B. −50%

C. −10%

D. +50%

8. A stipulated eligible first-year 6% cap uses PHP 10,000 baseline and PHP 14,000 uncapped amount. The result is:

A. PHP 14,840

B. PHP 10,060

C. PHP 10,600

D. PHP 600

9. The stipulated transition highest-of model uses PHP 3.2m SMV, PHP 4.1m zonal and PHP 3.8m price. The base is:

A. PHP 3.2m

B. PHP 4.1m

C. PHP 3.8m

D. PHP 11.1m

10. Compatible fictional index levels 120 and 126 show:

A. 5% growth

B. 0.5% growth

C. 6% growth

D. 126% growth

11. A justified fictional index model applies 126/120 to PHP 2m. Its result is:

A. PHP 2.1m

B. PHP 2.6m

C. PHP 2.01m

D. PHP 2.12m

12. The BSP RPPI is best used on an unrelated provincial agricultural parcel as:

A. Context requiring a separate relevance analysis

B. A substitute for title investigation

C. A guaranteed appreciation rate

D. An automatic exact escalator

13. For the covered submissions, M-2025-026's notarization waiver means:

A. All bank reports cease to exist

B. Signatures and submission obligations remain as revised

C. All private appraisals need no signatory

D. Every deed becomes exempt from notarization

14. The PSA count 112,729,484 is correctly labeled:

A. A measured October 2026 count

B. The 2024 POPCEN count as of 1 July 2024

C. A 2027 housing-sales forecast

D. The number of Philippine households

15. A corporate certificate alone establishes that a particular advertised development has complete CR/LS and land-use approvals:

A. Always

B. Only when its advertisement is attractive

C. Whenever it is an OPC

D. No; project and land-use evidence require separate verification

16. A portal sketch differs from 1,000sqm to 1,040sqm. The discrepancy on the first area is:

A. 40sqm and 40%

B. 40sqm and 0.4%

C. 4sqm and 4%

D. 40sqm and 4%

17. At stipulated diagnostic PHP 3,000/sqm, the 40sqm discrepancy gives:

A. PHP 120,000 as diagnostic sensitivity

B. PHP 1.2m

C. PHP 12,000

D. A certified PHP 120,000 market-value increase

18. IVSC's 2026 consultation identifies proposed future updates. The app should:

A. Replace all current national rules immediately

B. Distinguish the proposal from the operative edition

C. Treat the draft as a retroactive law

D. Delete the draft's proposed effective date

19. A rule changes after a historically correct question version was taken. The sound record is:

A. Overwrite all attempts silently

B. Describe the old answer as always incorrect

C. Store only the newest answer letter

D. Retain the old version and link attempts while publishing a reviewed revision

20. A full regulatory instrument has not been checked, but a headline gives a housing ceiling. The best current model practice is:

A. Treat the headline as every project's sale price

B. Assume financing eligibility for all buyers

C. Verify the instrument and scope; keep an unresolved input or supplied scenario clearly labeled

D. Mark every approval complete

23 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	B	11	A
2	C	12	A
3	A	13	B
4	C	14	B
5	D	15	D
6	D	16	D
7	C	17	A
8	C	18	B
9	B	19	D
10	A	20	C

1. B A proposal establishes intended policy. It does not itself establish enactment or the scope and effective period of a suspension.

2. C A cutoff identifies the edition’s information boundary. Valuation and legal or statistical dates must be separately stated.

3. A Proposal status and actual effectivity are separate. An implementation deadline alone does not prove completion.

4. C The digest describes circularization of the IRR. It does not certify local application or a property-specific value.

5. D 4,000,000 × 0.20 × 0.01 = 8,000. This is the supplied basic model, not a complete actual bill.

6. D 6,000,000 × 0.12 × 0.01 = 7,200. The assessment-level change matters independently of the value base.

7. C (7,200 − 8,000)/8,000 = −10%. Do not substitute the 50% base increase for the model result.

8. C The capped ceiling is 10,000 × 1.06 = 10,600, lower than 14,000. The exercise expressly supplies eligibility.

9. B The highest supplied amount is PHP 4.1m. The calculation applies only to the stated transition premise.

10. A 126/120 − 1 = 5%. The six-index-point difference is not itself a 6% growth rate.

Answer explanations continued

11. A 2,000,000 × 1.05 = 2,100,000. Relevance is supplied in the exercise and must be established in actual work.

12. A The bank-financed residential series does not directly establish a particular agricultural parcel's price adjustment.

13. B The amendment removes a specified element. It does not abolish the retained requirements or govern all property documents.

14. B The count's reference date is 1 July 2024. Release and research dates are distinct; population is not households or guaranteed sales.

15. D Entity existence, project licensing and land-use status are separate questions for appropriate authorities and records.

16. D 1,040 − 1,000 = 40sqm; 40/1,000 = 4%. The difference does not certify either sketch.

17. A 40 × 3,000 = 120,000. The arithmetic establishes sensitivity, not legal area or an automatic final value change.

18. B The consultation identifies intended future publication and effectivity. Adoption and applicable national requirements need separate checks.

19. D Versioned attempts preserve historical validity. Store the proposition, source and applicable dates as well as the answer letter.

20. C A headline is a lead. Project type, conditions and transition need evidence before an exact regulatory input is applied.

Worksheet model responses

Response 1

Enacted statute; circularization of IRR; policy proposal; locally proposed instrument needing its application conditions; future standards proposal. Publication, effectivity and the chapter's 12 October 2026 cutoff are different fields. Do not infer that a proposal has become operative.

Response 2

PHP 8,000 and PHP 7,200. The latter is PHP 800 lower, a 10% decrease. The changed assessment level offsets the higher supplied value base in this restricted model. Actual liability needs adopted local inputs and other applicable components.

Response 3

Transition model base PHP 4.1m. Stipulated capped component: min(14,000, 10,000 × 1.06) = PHP 10,600. The base comparison and cap answer different questions. Verify actual eligibility, schedule status, baseline, component and period before applying them.

Response 4

126/120 − 1 = 5%; PHP 2m × 1.05 = PHP 2.1m. The real RPPI is a defined bank-financed residential series and is not an automatic adjustment for agricultural land. The census number is as of 1 July 2024, not October 2026.

Response 5

Entity: registration, identity and representative authority; property interest: title and supporting conveyance records; project: applicable verified CR/LS; land use: adopted planning and relevant agrarian conversion/exemption records. Resolve applicability rather than assuming all approvals are required or all are complete.

Response 6

40sqm; 40/1,000 = 4%; 40 × 3,000 = PHP 120,000. The figures establish discrepancy sensitivity. Approved survey and appropriate property records, reconciled by competent investigation, must support legal area. Portal retrieval is not certification.

Response 7

Source is BSP M-2025-026. It records the index renaming and notarization waiver for specified bank quarterly reports. Authorized-signature and submission requirements remain. Check the covered banks and forms. Revise dependent procedural answers while preserving historical versions and do not extend the waiver to all property documents.

Response 8

Record the stable item ID and prior version, exact old/new propositions, source locator, applicable date, reason, impacted explanations and examples, reviewer and release date. Link prior attempts to their original version. Withdraw materially ambiguous current items pending verification; disclose any regrading rule.

24 Essential terms and calculation review

Cutoff Boundary of an edition’s researched status.

Reference date Date or period measured by a dataset.

Effectivity When an instrument applies under its requirements.

Transition Rules governing movement between regimes.

Proposal Intended change without inferred operative adoption.

Vintage The particular data release used in analysis.

Dependency A claim or result relying on an identified source or input.

Supersession Replacement of a formerly applicable item.

Correction Repair of an original error.

Relevance Fit between evidence and the defined valuation inquiry.

Revision register Preserved record of change evidence applicability and review.

Supplied teaching model	Calculation
Original basic component	4,000,000 × 20% × 1% = PHP 8,000
Revised basic component	6,000,000 × 12% × 1% = PHP 7,200
Restricted change	(7,200 − 8,000)/8,000 = −10%
Stipulated first year cap	min(14,000, 10,000 × 1.06) = PHP 10,600
Transition highest of	max(3.2m, 4.1m, 3.8m) = PHP 4.1m
Compatible index growth	126/120 − 1 = 5%
Indexed amount	PHP 2,000,000 × 126/120 = PHP 2,100,000
Area discrepancy	1,040 − 1,000 = 40sqm; 40/1,000 = 4%
Diagnostic amount	40sqm × PHP 3,000/sqm = PHP 120,000

Correct arithmetic does not establish adopted rates, a qualifying schedule, compatible real-world indexing, legal area or a supported final market value.

25 Sources and cutoff record

Research cutoff 12 October 2026. Bracketed source IDs link chapter propositions to the records below. Numerical assumptions, briefs, cases, worksheet, questions and revision examples are original educational work. The source list preserves differences between full-text checks, official indexed announcements and service information.

The chapter is a dated study update, not an exhaustive inventory of all issuances. Exact future examination permissions, project approvals, new housing ceilings and enacted suspension instruments require the relevant operative record. The original RPVARA amnesty window alone is not treated as an open entitlement at this cutoff.

R01 PRC examination program

Primary program: first page coverage and second page calculator guidance; approved 2 March 2026. Later pages include attached prior instruments, so do not treat every page heading as a new examination announcement.

https://www.prc.gov.ph/sites/default/files/REA%20exam%20program%202026.pdf

R02 RA 12001

Selected framework provisions, particularly sections 15–19 and 29–31. Read with implementing and locality-specific instruments for application.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

R03 DOF explanation

Official 11 July 2026 explanation on assessment levels and tax rates; policy explanation is distinguished from the operative instrument.

https://www.dof.gov.ph/dof-lgus-can-reduce-assessment-levels-and-tax-rates-under-rpvara-to-lower-property-taxes/

R04 BIR circular digest

Primary one-page digest establishing RMC 30-2025 circularization and issue date.

https://bir-cdn.bir.gov.ph/BIR/pdf/RMC%20No.%2030-2025%20Digest.pdf

R05 Presidential policy announcement

Official indexed announcement of 6 August 2026 describing a proposed temporary suspension. Used only for proposal status; no enacted suspension is inferred.

https://pco.gov.ph/news_releases/president-marcos-seeks-temporary-suspension-of-real-property-valuation-implementation-to-protect-businesses-investments/

R06 House proposal record

Official indexed House release describing a measure seeking a two-year suspension of key provisions. Full legislative enactment or effectivity is not established by the announcement.

https://www.congress.gov.ph/media/press-releases/10048

Sources and cutoff record continued

R07 BSP current series and archive

Official series page and linked archive identify current RPPI publication and replacement of the earlier RREPI beginning Q1 2025.

https://www.bsp.gov.ph/Pages/MediaAndResearch/PublicationsAndReports/RPPI.aspx

R08 BSP technical notes

Primary technical notes: opening page on coverage, exclusions and source banks; used for relevance and comparability analysis.

https://www.bsp.gov.ph/Media_And_Research/RPPI/TechnicalNotes_RPPI.pdf

R09 BSP memorandum

M-2025-026: renaming and scoped notarization waiver; revised table retains authorized signatures and submission requirements.

https://www.bsp.gov.ph/Regulations/Issuances/2025/M-2025-026.pdf

R10 PSA census release

PSA regional mirror of the official release dated 17 July 2025; count as of 1 July 2024 and Proclamation 973 dated 11 July 2025.

https://rsso09.psa.gov.ph/2024-census-population-popcen-population-counts-declared-official-president

R11 DHSUD verification guidance

Official indexed CR/LS guidance used for its verification route. It is not a current project approval or an audit of all housing-price circulars.

https://dhsud.gov.ph/news/follow-the-dream-to-avoid-being-scammed/

Sources and cutoff record continued

R12 DAR field-office response

Primary agency eFOI response dated 9 August 2025; no conversion approval or substantive checklist is inferred.

https://www.foi.gov.ph/agencies/dar/land-conversion-requirement/

R13 SEC process portal

Official learning portal: ZERO section, eSECURE/eSAP note and notice beginning 7 April 2025. Actual filing should follow current live instructions.

https://learn-esparc.sec.gov.ph/application/select-regular

R14 NAMRIA eMapa

Primary service page reviewed for access to maps, charts and publications; it does not certify parcel boundaries or title.

https://isportal.namria.gov.ph/eMapa/

R15 IVSC consultation

Primary 2026 consultation page: intended publication January 2027 and effectivity January 2028. Proposal status is preserved.

https://ivsc.org/consultations/ivs-exposure-draft-for-consultation-2026/

R16 RPVARA implementing rules

BIR-circulated IRR inspected visually on printed pages 25–26, sections 54–57, and circular cover. BLGF's primary IRR source is listed below; these selected checks are not a complete implementation audit.

https://blgf.gov.ph/wp-content/uploads/2025/03/BLGF-MC-No.-001.2025-IRR-of-RA-No.-12001-or-the-RPVARA-Reform-Act-6-Jan-2025-Approved-3.pdf

REALEX

Lesson 36

Integrated Appraisal Cases and Examination Readiness

Final capstone lesson for the Philippine Real Estate Appraiser Licensure Examination curriculum

2027 preparation edition • Research reviewed 12 October 2026

Bring the legal interest, evidence, valuation method, calculation and report conclusion together. This final lesson tests whether you can defend a result and identify the precise reason an answer needs correction.

Five original property files support ten worked cases, configurable timed forms, report and review exercises, an eight-task two-page worksheet and twenty original questions with explained answers. A competency map, scoring rubric, remediation plan and altered-input retests support the final readiness review.

All properties, transactions, costs, rates and assumptions are fictional teaching inputs. They are not actual PRC examination items or certified professional appraisals. Statutory rating conditions are stated separately from the chapter's internal learning targets.

Your learning goals

- Define the interest condition dates and evidence boundary.
- Select methods appropriate to the inquiry and source quality.
- Normalize sales and defend the supplied weights.
- Check cost components and distinct loss allowances.
- Match property income cash flow and rates.
- Discount terminal proceeds and development flows correctly.
- Separate installed machinery from disposal premises.
- Distinguish market value assessed amount and tax.
- Write and review a supported conditional conclusion.
- Diagnose errors and demonstrate transfer on fresh inputs.

Study plan: Allow six hours across three sessions. Read the synthesis and five dossiers first; attempt the cases and report exercise next; finish with the timed forms, worksheet and practice test. Use Lessons 30 and 32–35 with the approach lessons for targeted remediation.

1 What the capstone must demonstrate

The final lesson tests whether you can keep a valuation inquiry coherent while its facts cross several subjects. A correct calculation is one part of that task. You must also identify the interest being valued, the relevant date, the evidence status and the assumptions supporting the selected method. A supported result connects those elements to a clear conclusion. When a material foundation is unresolved, the competent result may be a conditional scenario or a request for further work.

The five fictional files in this chapter concern a residence, a rental property, development land, installed machinery and an LGU assessment. They share an analysis date of 30 September 2026 and a teaching memorandum date of 12 October 2026. They are independent assets and models. Do not add their outputs into a portfolio unless a question specifically defines that task. Do not transfer an assumed tax level, discount rate or evidence conclusion from one file to another.

The July 2026 PRC program places research, practical mathematics, report writing, machinery, taxation, GIS and current events within Professional Appraisal Practice. This capstone combines those competencies in original exercises. Its internal scores and suggested time limits are educational controls, not PRC examination rules. The statutory rating rule and the named 2026 program are separately identified in the readiness section. [R01 R02]

2 Define the question before choosing a formula

Write the client decision, intended use, intended users, asset or interest, valuation date, value basis and condition in a short assignment statement. Distinguish ownership of land and improvements from shares in the owning company. Distinguish an installed machine in continued use from the same machine removed for disposal. The words “property value” are insufficient when those alternatives can produce different results. The calculation must answer the defined question.

For File A, the supplied inquiry concerns the ownership interest in the land and existing residence. For File B, the ownership interest is subject to the stated leases, and the exercise stipulates that the cash-flow and rate inputs are compatible with that interest. For File C, the actual agricultural parcel and the assumed approved subdivision are separate conditions. For File D, installed use and disposal are separate premises. For File E, the task is an assessed-value and principal-tax calculation, not a fresh private market valuation.

An examination stem may deliberately specify one of these distinctions. Underline the interest and condition mentally before handling numbers. If it does not specify enough facts, do not fill a material gap with an unsupported assumption. In a real assignment, establish the scope and evidence needed. In these exercises, use supplied premises for the arithmetic while explaining exactly what those premises establish. This is how scope, standards and quantitative work remain connected.

Inquiry	Defined output	Premise boundary
Residence	Current-condition ownership indication	Land and existing improvements
Rental	Property income indication	Ownership subject to stated leases
Development	Conditional land residual	Assumed permissions; actual use separate
Machinery	Installed or disposal output	Different configuration and premise
LGU	Assessed amount and principal	Supplied administrative inputs

3 Build the evidence register and preserve status

Classify each material input as an identified document, a verified observation, an assumption supplied by the exercise, a disputed claim or an unresolved requirement. Use source IDs so a reviewer can trace the calculation. A clean table can be misleading if it silently converts an asking price into a completed sale, a preliminary plan into an approved use or a sketch into a certified survey. The evidence label belongs with the number.

The dossiers supply fictional records with explicit status. File A's three transactions and the direction of their adjustments are stipulated. File B supplies rent and expense assumptions and a compatible capitalization rate; the case does not establish a real market rate. File C supplies hypothetical development cash flows but does not establish actual conversion approval. File D supplies distinct loss categories and their application sequence. File E supplies rates and an eligible cap variation rather than asserting a locality's current ordinance.

Retain original and normalized observations separately. Record changes, units and exclusions. If an expense has already been included in a subtotal, do not subtract it again under another label. If a drawing differs from the approved survey, record the discrepancy and investigate it. A reviewer should be able to reconstruct the model without relying on the author's memory. Documentation and reporting are related but distinct functions: the report communicates the result; the supporting file preserves the work that justifies it. [R03]

4 Resolve use condition and legal feasibility

Highest and best use requires more than comparing attractive financial outputs. Evaluate physical possibility, legal permissibility, financial feasibility and the use that produces the relevant maximum result. An assumed future permission can be analyzed as a stated scenario without proving that it exists at the valuation date. In File C, the larger development residual therefore does not automatically defeat the unresolved legal constraint. The scenario is conditional and cannot be silently relabeled as the current agricultural-land conclusion.

A legally permissible use can still fail financially. An apparently profitable model can omit land costs, selling costs, timing, infrastructure or a required return. A technically possible plan may have access, setback, drainage or site constraints that change saleable area. Record those constraints before comparing the alternatives. Where the case gives a net-saleable fraction, use it as a supplied geometric assumption, not as proof of engineering or planning compliance.

For an existing asset, distinguish its observed condition from an assumed repaired or completed condition. A repair allowance can be appropriate only within the stated model and with adequate support. Correcting an arithmetic error cannot create an inspection that never occurred. When a fact is materially unresolved, state its effect and the evidence required to resolve it. This judgment is part of valuation competence and should remain visible even under examination time pressure. [R03]

5 Select methods by relevance and available evidence

Sales comparison is useful where sufficiently relevant transactions support an inquiry. Cost analysis can test the land and improvement components and identify loss categories. Income analysis can address property cash flows where they match the defined interest and condition. Development analysis can examine a staged project or residual. Machinery work requires a clear configuration and premise. Tax assessment follows its applicable administrative framework. An approach earns weight through relevance and support, not because every assignment must display every formula.

File A contains a supplied rationale for transaction weights of 40%, 40% and 20%. That makes the weighting defensible within the exercise. File B supplies both a stabilized capitalization model and a three-year cash-flow model. Their numerical difference prompts examination of their assumptions rather than an automatic

average. File C's residual depends on approvals, net area, prices, costs and timing. File D's replacement analysis excludes double deductions already addressed by the modern equivalent base.

Before computing, identify what information could change the selected model. A lease review can change the cash-flow stream. A survey can change saleable area. A condition investigation can change improvement losses. A tax instrument can change an assessed amount. A model unsupported by sufficient inputs should not be rescued by decorative precision. Use the cases to practise saying why a method applies and what its result means, alongside the numerical answer.

6 Adjust comparable transactions consistently

Apply an adjustment to the comparable to make it more like the subject within the stated model. If a comparable is superior in a relevant attribute, the corresponding adjustment is ordinarily downward; if inferior, upward. Do not apply this direction mechanically without reading the exercise's defined attribute, rights and timing. When multiple adjustments use different bases, record their order. The File A adjustments are supplied additive amounts in PHP million, so no compounded percentage sequence is required.

The transaction prices are 4.6, 4.9 and 4.8 million. Supplied net adjustments produce 4.7, 4.7 and 4.6 million. With the stated weights, the restricted sales indication is 4.7 × 40% + 4.7 × 40% + 4.6 × 20% = PHP 4.68 million. Retain the unadjusted prices, adjustment amounts and final normalized observations in the workfile. The implied weighting is not a universal rule for three comparables.

Audit the units before the weights. A price per square meter is not a total price, and a sale of one interest may not directly compare with another. An asking observation can contextualize negotiation but should not be presented as the fourth verified completed transaction. Even where the final amounts converge, investigate whether convergence results from genuine evidence or from adjustments chosen to force a target. Reconciliation cannot repair biased source selection.

Comparable	Price PHP m	Net adjustment PHP m	Adjusted PHP m	Weight
1	4.6	+0.1	4.7	40%
2	4.9	−0.2	4.7	40%
3	4.8	−0.2	4.6	20%

7 Use cost and depreciation without double counting

A replacement-cost model should state the configuration, cost inclusions and losses deducted. Distinguish replacement from historical expenditure, and economic depreciation from accounting depreciation. File A supplies land of PHP 1.8 million and replacement of existing improvements of PHP 3.6 million. Distinct physical and functional losses are PHP 0.6 million and PHP 0.3 million. The restricted improvement amount is PHP 2.7 million, and total land-plus-improvement indication PHP 4.5 million.

Do not deduct land depreciation merely because the building deteriorated. Do not subtract the same repair or functional deficiency in two categories. A recorded book value does not become market value by being audited. A modern equivalent may already exclude excess construction or equipment capacity. If that feature has been removed from the replacement base, a second deduction can understate the result. Identify how each allowance relates to the base actually used.

The File A cost indication is PHP 180,000 below the sales indication. That difference is about 3.85% of the sales indication. It does not automatically prove that either model is wrong. Examine component support, loss estimates and transaction relevance. The exercise's stipulated sales evidence carries the stronger

reconciliation role. The result remains a teaching indication under the supplied evidence, rather than an actual signed appraisal of a real residence.

8 Match the property income stream to the rate

Start with gross income, identify the basis of vacancy and collection loss, add compatible other income and deduct the included property operating expenses. Keep debt service, investor income tax and accounting depreciation separate from the defined property NOI. If a reserve is included, record that convention and use a rate compatible with it. Do not import a different reserve treatment from another question without changing the rate analysis.

File B has four units at PHP 12,500 per month, giving annual potential rent of PHP 600,000. The 10% vacancy/collection allowance applies to that rent alone. Other income of PHP 24,000 is already net collected. Effective gross income is PHP 564,000. The supplied PHP 164,000 operating-expense subtotal includes property tax and the stipulated reserve, producing NOI of PHP 400,000. No second property-tax or reserve deduction is required.

At the compatible supplied 8% capitalization rate, the indication is PHP 5 million. Debt service of PHP 180,000 leaves PHP 220,000 after debt service in the restricted cash distribution calculation, but the debt service does not replace NOI in the property capitalization formula. A borrowing choice can change equity cash flow without changing the defined unlevered property stream. Show that distinction when defending the result.

9 Place terminal proceeds in the correct period

A discounted cash-flow model needs the dated cash flows, period convention, discount rate and terminal assumptions. Use the cash flow immediately after the final explicit forecast period where the model specifies a forward terminal NOI. Apply disposal costs only once. Add the final year's operating income to sale proceeds when both occur at the same year end, and discount their combined amount from that period.

File B's independent DCF variant has year-end NOI of PHP 400,000, 420,000 and 440,000. Forward year-four NOI is PHP 460,000. At an 8% terminal rate, gross terminal value at the end of year three is PHP 5.75 million. Stipulated selling costs of 2% reduce terminal proceeds to PHP 5.635 million. Year-three cash flow including NOI is PHP 6.075 million. Discounting the three dated flows at 10% produces PHP 5,274,981, rounded to the nearest peso.

The stabilized PHP 5 million capitalization indication and the DCF result are not interchangeable premises. The DCF variant supplies growth and disposal assumptions; the stabilized model uses a different defined stream. Evaluate which model represents the assignment and evidence. Averaging the two simply because there are two numbers would conceal the explanation. Check the terminal year, rate and income convention before deciding whether the difference is meaningful.

Period	NOI PHP	Net sale PHP	Total flow PHP
Year 1	400,000	0	400,000
Year 2	420,000	0	420,000
Year 3	440,000	5,635,000	6,075,000

10 Development residuals and the cost of delay

Development receipts are not land value. Subtract the non-land costs and required allowances within a timed model before identifying a residual for land. Record whether each cost is already a present-value allowance or a future cash flow. Do not discount a present-value allowance again. Do not add borrowing interest to a simplified unlevered model when its stipulated risk and financing treatment excludes that item.

File C assumes a 10,000sqm site, 60% net saleable area and twenty 300sqm lots at PHP 900,000 each. Total nominal receipts are PHP 18 million, received equally at the ends of years one and two. Each year's selling expense is 5% of its own receipts. Other non-land cash costs are PHP 4 million in year one and PHP 2 million in year two. Present-value fees and the separate developer profit allowance are PHP 1 million and PHP 2 million. The exercise stipulates that the discount rate and profit allowance address distinct components and no extra interest is added.

At 10%, net future receipts of PHP 4.55 million and PHP 6.55 million have total present value PHP 9,549,587. Less the two present-value allowances, the restricted land residual is PHP 6,549,587. If those future flows shift one year later while the stated present-value allowances remain unchanged, the residual falls to PHP 5,681,443. Actual delay could also change costs or sales. The simple shift isolates timing; unresolved approvals still prevent the scenario from becoming the unconditional actual-use value.

Year end	Receipts PHP m	Selling PHP m	Other costs PHP m	Net flow PHP m
1	9.00	0.45	4.00	4.55
2	9.00	0.45	2.00	6.55

Fees PHP 1m and distinct developer profit PHP 2m are supplied valuation-date present-value allowances, deducted once after discounting the future net flows.

11 Machinery configuration and successive allowances

Installed machinery can include freight, duties, installation and testing in addition to factory price. Identify the assets, ownership and use premise before selecting the base. File D supplies a modern equivalent installed cost of PHP 4 million. The older equivalent's PHP 5 million benchmark contains excess capacity already removed in that modern base. It is not another PHP 1 million deduction from the supplied PHP 4 million.

The case supplies physical loss of 20% of installed cost, a separate functional allowance of PHP 300,000 and external loss of 10% of the amount remaining after those two deductions. Physical loss is PHP 800,000; after physical and functional deductions the amount is PHP 2.9 million. External loss is PHP 290,000, leaving PHP 2.61 million. The external allowance's base matters: adding 20% and 10% and applying 30% to installed cost would use a different model.

A separate disposal premise gives gross proceeds PHP 1.8 million and distinct dismantling and transport costs PHP 200,000 and PHP 100,000. Net proceeds are PHP 1.5 million. The installed and disposal outputs answer different questions. Do not subtract removal costs from the installed model without evidence that its premise requires them. Neither teaching amount establishes an actual engineering condition or a certified asset inspection.

12 Tax assessment remains a separate inquiry

File E is a restricted tax-assessment exercise. It uses a supplied land value of PHP 1.8 million at an assessment level of 20% and a supplied improvement amount PHP 2.7 million at 40%. Assessed values are PHP 360,000 and PHP 1.08 million, totaling PHP 1.44 million. A stipulated city basic rate of 2% and SEF rate of 1% produce

annual principal components PHP 28,800 and PHP 14,400, or PHP 43,200 total. Exemptions, other levies, arrears, discounts and penalties are excluded.

Those assumed tax inputs do not revise File A's private sales indication. Conversely, a private appraisal does not automatically establish an adopted assessed value or complete tax bill. Preserve the basis, property category, jurisdiction and applicable instrument. RA 12001 distinguishes the fiscal transition from valuation itself. Its section 29 first-year cap must be considered within its stated scope rather than treated as a permanent ceiling. [R04]

The cap variation expressly supplies eligibility and equal relevant baseline-date amounts: PHP 24,000 basic and PHP 12,000 SEF. The separately computed ceilings are PHP 25,440 and PHP 12,720, giving PHP 38,160 when applied to the larger raw components. The exercise does not resolve differing real-world baseline records or prove that a new schedule is operative. An actual inquiry needs the applicable documents before its liability is finalized.

13 Reconcile and state the conclusion status

Reconciliation explains why compatible evidence supports the chosen indication. It does not mechanically reward the approach that produces the highest result. Do not combine different premises, assets or value bases in an unexplained mean. Within a case, identify source reliability, sensitivity, missing information and the relevance of each model. A compatible supporting model can improve confidence while retaining a smaller role than the stronger evidence.

For File A, the given transaction rationale supports the weighted PHP 4.68 million sales indication; the PHP 4.5 million cost analysis is a cross-check. For File B, explain the stabilized versus forecast conditions before selecting a result. For File C, the present model supports a conditional development residual, with actual-use value unresolved by that scenario. For File D, report installed and disposal results separately. For File E, state a restricted principal-tax subtotal and the separate eligible cap variation.

Use a clear conclusion status: supported teaching indication, conditional scenario, arithmetic check or withheld unconditional opinion. Match each status to the evidence. Precision should reflect the supported inquiry; a peso-rounded DCF is useful for answer checking but does not make its real-world inputs certain. Where the question asks for a number, provide it with the defined assumptions. Where it asks for an appraisal judgment, include the reason and the next evidence needed.

File	Restricted result	Conclusion status
A	Sales PHP 4.68m; cost PHP 4.5m	Sales-led teaching reconciliation
B	Cap PHP 5m; DCF PHP 5,274,981	Separate stabilized and forecast models
C	Residual PHP 6,549,587	Conditional development; actual-use unresolved
D	Installed PHP 2.61m; disposal PHP 1.5m	Different premises kept separate
E	Principal PHP 43,200; cap variant PHP 38,160	Separate stipulated tax scenarios

14 Write a report that the evidence can support

A concise capstone memorandum should state the assignment, dates, interest, evidence, methods, significant assumptions, results, reconciliation and limitations. Identify who performed the work and the actual status of any specialist evidence. Do not claim interior inspection, engineering certification, legal approval or complete standards compliance merely because the format contains a field for it. The source record must support the

statement. Current IVS documentation and reporting concepts emphasize communicating significant inputs and judgments with sufficient supporting records. [R03]

The deliberately flawed File C extract in this lesson calls the proposal an approved subdivision, adds the residence and rental-property indications to subdivision receipts and claims full certification. These errors concern legal premise, asset boundary, reporting and evidence. Correcting the sum alone cannot repair them. A proper rewritten extract keeps the actual agricultural inquiry separate, labels the development assumptions and identifies what must be resolved before an unconditional conclusion.

A reviewer should distinguish an editorial defect, arithmetic error, model mismatch and missing material evidence. Each category calls for a different response. A spelling correction may be sufficient for the first; the last can require further investigation or withholding the opinion. Record the finding, source, effect, required action and review status. Do not silently replace an issued report or erase the record of a material correction.

15 Diagnose errors by competency and consequence

A total score hides the reason an answer failed. Classify the error as knowledge, scope, evidence, sign, unit, timing, arithmetic, interpretation or reporting. Record the item, expected proposition, your answer and the actual cause. A correct number supported by the wrong premise should be marked as a reasoning weakness. An incorrect number caused by one transcription error should trigger a different remediation task from a misunderstood value basis.

Use the competency map to select the earlier lesson rather than rereading the entire book without a purpose. Rebuild the specific calculation or scope statement with the answer hidden, explain it aloud and solve a changed-input version. The worked cases and MCQs overlap deliberately for diagnosis. Success on a familiar repeated item alone does not demonstrate transfer to a new case. Change the data or premise and verify that the reasoning survives.

The original practice rubric scores assignment and evidence, model selection, calculation, interpretation and report control. Its critical-error flag is separate from the numerical total. A fabricated inspection or unsupported legal-use claim remains unresolved even when arithmetic scores are high. The suggested readiness thresholds later in this chapter are internal learning targets, not official licensure criteria or a prediction of ranking.

16 Timed performance and the final readiness decision

Time pressure should shorten expression rather than remove essential reasoning. Read the case once for the question and again for the dates, exclusions and units. Write the model before entering calculator values. Reserve an audit period to check order of adjustments, denominators, terminal timing and whether the requested output is value, assessed value, tax or a residual. Copy the final result with its unit and conclusion status.

This chapter provides three configurable timed forms. Form A uses the twenty MCQs; Form B selects the main calculations; Form C adds integration and reporting. Set the chosen mode and time budget before the attempt. Open-book learning, closed-book practice and later altered-input retests measure different things and should remain labeled. A recorded score should carry the question and form version so a later update does not silently change an earlier attempt.

RA 9646 section 15 requires an average of at least 75% across subjects with no subject rating below 50%. The checked July 2026 program allocates 50% each to Fundamentals and Professional Appraisal Practice. These are separate from the capstone’s own competency percentages. For a future examination, follow the applicable PRC program and admission instructions. No result in this book guarantees passing, ranking or authority to sign a professional appraisal. Use the final readiness record to decide which specific weaknesses need one more verified attempt. [R01 R02]

17 Original property dossiers

File A Malinao Residence

A-01 instruction identifies an acquisition decision for the ownership interest in 300sqm land and its existing 120sqm residence. A-02 survey/title and A-03 inspection records are stipulated sufficient for the teaching inquiry. The inspection is dated 28 September 2026; the valuation date is 30 September. Business goodwill, movables and investor financing are excluded.

Supplied records and inputs

A-04 contains three verified fictional transactions, with compatible interest and date normalization stipulated. All adjustments below are additive PHP million applied to each comparable.

Comparable 1: price 4.6; adjustment +0.2 for its inferior feature and −0.1 for its superior feature. Comparable 2: price 4.9; −0.3 and +0.1. Comparable 3: price 4.8; −0.2.

Weights 40%, 40%, 20% are supplied because the first two records have stronger comparability and support. An asking observation of PHP 5.2m is labeled separately and is not a verified fourth sale.

A-05 cost check: land PHP 1.8m; replacement of existing improvements PHP 3.6m; distinct physical loss 0.6m and functional loss 0.3m. No external loss is supplied. Cost components are compatible with the same current condition.

Required outputs

- Compute the three adjusted transactions and weighted indication.
- Compute the land-plus-improvement cost check and explain the reconciliation role.
- Use the supplied support to state a teaching conclusion, with methods and exclusions visible.

Evidence status: stipulated fictional records for calculation and judgment practice. Preserve each stated uncertainty and exclusion; do not infer actual approval or certification.

Original property dossiers continued

File B Habagat Rental Court

B-01 identifies the ownership interest in the four-unit rental property, subject to the stated leases. B-02 contains the rent schedule; B-03 supplies the operating budget. All figures are fictional, and stream/rate compatibility is explicitly stipulated. The analysis concerns property cash flow before investor debt service.

Supplied records and inputs

Four units each rent at PHP 12,500/month. Annual vacancy and collection loss is 10% of potential rent alone. Other income is PHP 24,000 already net collected.

Annual property expenses: property tax 40,000; repairs 50,000; management 36,000; utilities 14,000; reserve 24,000. The reserve is included in the NOI convention, with compatible supplied rates. Debt service 180,000 is separate.

B-04 stabilized capitalization model: compatible rate 8%. Sensitivity variants use 7.5% and 8.5% with the same NOI. These are supplied rates, not verified real market yields.

B-05 is an independent forecast variant: year-end NOI 400,000, 420,000, 440,000; forward year-four NOI 460,000; terminal cap rate 8%; selling cost 2% of gross terminal value; annual discount rate 10%. Sale occurs at the end of year three.

Required outputs

- Compute rent, vacancy, EGI, expenses, NOI and the stabilized indication.
- Distinguish property NOI from cash after debt service.
- Compute the separate forecast variant and explain its different assumptions.

Evidence status: stipulated fictional records for calculation and judgment practice. Preserve each stated uncertainty and exclusion; do not infer actual approval or certification.

Original property dossiers continued

File C Amihan Development Land

C-01 identifies the ownership interest in an existing agricultural parcel. C-02 provides a stipulated approved survey area of 10,000sqm. A 10,200sqm GIS sketch is an unverified secondary record. The file does not establish the required conversion or project permissions for a residential subdivision at the valuation date.

Supplied records and inputs

C-03 is a separate special-assumption development scenario: all required permissions and practical feasibility are assumed solely for the model. Net saleable area 60%; lot size 300sqm; lot price PHP 900,000.

Half the twenty lots are sold at the end of year one and half at the end of year two. Selling expense is 5% of each year's own receipts. Other non-land costs are PHP 4m at year one and PHP 2m at year two.

C-04 supplies two distinct valuation-date present-value allowances: fees PHP 1m and developer profit PHP 2m. The annual 10% discount rate and the profit allowance are stipulated to cover distinct components; no extra borrowing interest is added. No land cost is included in the non-land deductions.

Delay variant: move the two future net cash flows to year ends two and three, retaining the supplied PV allowances. Diagnostic sketch-discrepancy rate is PHP 3,000/sqm. It is not a certified land-price adjustment.

Required outputs

- Compute area, lot count, receipts, timed net cash flows and restricted residual.
- Calculate the isolated one-year delay effect.
- Explain why the assumed scenario and sketch cannot establish unconditional actual-use value.

Evidence status: stipulated fictional records for calculation and judgment practice. Preserve each stated uncertainty and exclusion; do not infer actual approval or certification.

Original property dossiers continued

File D Silangan Installed Machinery

D-01 identifies one owned machine installed for continued use, excluding the surrounding building, land and business goodwill. D-02 supplies a modern equivalent with compatible service capacity. Engineering quantities, loss amounts and sequence are stipulated for learning; no actual specialist certification is issued.

Supplied records and inputs

Modern equivalent base: factory price PHP 3.2m; freight 0.2m; duties 0.1m; installation 0.4m; testing 0.1m. All components are distinct and together form installed replacement cost.

The older equivalent benchmark is PHP 5m and contains PHP 1m excess capacity already removed in the modern equivalent base. Do not deduct that excess again.

Physical loss is 20% of installed replacement cost. A distinct functional allowance PHP 0.3m follows. External loss is 10% of the amount remaining after physical and functional deductions.

D-03 independent disposal premise: gross proceeds PHP 1.8m; dismantling cost 0.2m; transport cost 0.1m. Those costs are not deducted from the installed-use scenario.

Required outputs

- Compute installed replacement and successive allowances.
- Compare the independently defined disposal proceeds.
- Explain configuration, loss bases and the double-counting trap.

Evidence status: stipulated fictional records for calculation and judgment practice. Preserve each stated uncertainty and exclusion; do not infer actual approval or certification.

Original property dossiers continued

File E LGU Assessment Exercise

E-01 supplies a nonexempt residential property assessment. The values are an independent stipulated administrative input, numerically using File A's land and improvement cost components; they do not replace File A's private sales indication. E-02 provides the exercise rates and E-03 the cap variation conditions.

Supplied records and inputs

Supplied land amount PHP 1.8m at assessment level 20%. Supplied improvement amount PHP 2.7m at assessment level 40%. Stipulated city basic rate 2% and SEF rate 1%.

The base exercise excludes other levies, exemptions, arrears, penalties, discounts and the transition cap. It asks for annual principal only. No actual locality's ordinance is certified.

The independent cap variation explicitly satisfies the relevant first-year conditions. Baseline basic PHP 24,000 and SEF PHP 12,000 are equal at both relevant Act/IRR baseline dates. Compute separate 6% ceilings.

Actual implementation and differing baseline records require the relevant legal and administrative evidence. The supplied eligibility is a teaching premise, not proof that a new schedule is currently operative.

Required outputs

- Compute assessed components and annual principal basic/SEF.
- Compute the separate eligible cap variation.
- Keep value, assessed amount and tax separate in the explanation.

Evidence status: stipulated fictional records for calculation and judgment practice. Preserve each stated uncertainty and exclusion; do not infer actual approval or certification.

18 Ten integrated worked cases

Use the dossiers. Attempt each prompt with the solution hidden, then compare the setup, calculation and conclusion. Record errors by competency rather than copying the final answer.

Case 1 Normalize and weight the residential sales

Question: Use File A to compute adjusted comparables and the weighted indication. Explain the treatment of the PHP 5.2m asking observation.

1. Comparable 1: 4.6 + 0.2 − 0.1 = PHP 4.7m.
2. Comparable 2: 4.9 − 0.3 + 0.1 = PHP 4.7m.
3. Comparable 3: 4.8 − 0.2 = PHP 4.6m.
4. Weighted indication: 4.7 × 0.40 + 4.7 × 0.40 + 4.6 × 0.20 = PHP 4.68m. Weights total 1.00.

Defense: The first two comparables receive greater weight under the supplied reliability rationale. The asking price remains a separately labeled observation, not a verified fourth sale. Retain adjustment direction, unadjusted price and normalized result in the evidence chain.

Error check: Equal weighting would give approximately PHP 4.666667m and would replace the stipulated rationale. Averaging the asking price into the verified sales would also change the defined evidence set.

Case 2 Audit the residential cost and reconciliation

Question: Compute File A's improvement amount, total cost indication and gap from the sales indication. Which indication carries the stronger supplied support?

1. Improvement amount: 3.6 − 0.6 − 0.3 = PHP 2.7m.
2. Total cost indication: 1.8 + 2.7 = PHP 4.5m.
3. Gap: 4.68 − 4.5 = PHP 0.18m, or PHP 180,000.
4. Gap relative to sales: 0.18/4.68 × 100 = about 3.85%.

Defense: The supplied transaction evidence supports the PHP 4.68m weighted teaching indication, with the compatible PHP 4.5m cost model as a cross-check. Explain the support rather than forcing an equal mean. Both concern the same interest and condition.

Error check: Do not depreciate land by the building's losses, deduct the same deficiency twice or report the mean as though arithmetic established the weights. The result is a stipulated teaching indication rather than a signed real-property appraisal.

Case 3 Rebuild rental NOI and capitalization

Question: Use File B to compute potential rent, vacancy, effective gross income, NOI, capitalization and cash after debt service.

1. Potential rent: 4 × 12,500 × 12 = PHP 600,000 annually.

2. Vacancy/collection loss: 600,000 × 10% = PHP 60,000. EGI: 600,000 − 60,000 + 24,000 = PHP 564,000.

3. Expenses: 40,000 + 50,000 + 36,000 + 14,000 + 24,000 = PHP 164,000. NOI: 564,000 − 164,000 = PHP 400,000.

4. Stabilized indication: 400,000/0.08 = PHP 5,000,000. Cash after debt service: 400,000 − 180,000 = PHP 220,000.

Defense: The vacancy base excludes the already net-collected other income. Property tax and reserve are already in the expense subtotal, and the rate is supplied as compatible with that NOI convention. Debt service belongs to the separate financing distribution calculation.

Error check: Capitalizing PHP 220,000 at 8% gives PHP 2.75m but mismatches the defined property stream. Deducting the PHP 40,000 property tax again would also understate NOI.

Case 4 Discount the rental forecast correctly

Question: Use the separate File B DCF variant. Show terminal value, net sale proceeds, the final-year flow and total present value. Round only the final amount to the nearest peso.

1. End-year-three terminal value uses forward year-four NOI: 460,000/0.08 = PHP 5,750,000.

2. Selling expense: 5,750,000 × 2% = PHP 115,000. Net sale proceeds = PHP 5,635,000.

3. Year-three combined flow: 440,000 + 5,635,000 = PHP 6,075,000.

4. PV = $400,000/1.10 + 420,000/1.10^2 + 6,075,000/1.10^3$ = PHP 5,274,981 rounded.

Defense: The model puts the sale at year three while using forward year-four NOI to establish the exit value. PV components are approximately PHP 363,636.36, 347,107.44 and 4,564,237.42. Retain full precision until the final sum.

Error check: Using year-three NOI for the terminal or discounting the terminal from year four would change the stipulated model. The DCF variant contains forecast assumptions distinct from the stabilized capitalization inquiry; do not average them without explanation.

Case 5 Compute the conditional development residual

Question: Use File C's special-assumption scenario. Calculate lots, gross receipts, net dated flows, residual and the isolated one-year delay variation.

1. Net saleable area: 10,000 × 60% = 6,000sqm. Lots: 6,000/300 = 20. Nominal receipts: 20 × 900,000 = PHP 18m.

2. Each year receives PHP 9m and has PHP 0.45m selling expense. Net year one: 9 − 0.45 − 4 = PHP 4.55m; net year two: 9 − 0.45 − 2 = PHP 6.55m.

3. Residual: $4.55m/1.10 + 6.55m/1.10^2 − 1m − 2m$ = PHP 6,549,587 rounded.

4. Delay variant: $4.55m/1.10^2 + 6.55m/1.10^3 − 1m − 2m$ = PHP 5,681,443 rounded. Decline before rounding is approximately PHP 868,144.

Defense: Present-value fees and profit allowances are deducted once at the valuation date. The future receipts and costs are discounted according to their supplied periods. The model stipulates distinct treatment of the discount rate and profit allowance.

Error check: The residual is conditional on assumed permissions and feasibility. It does not establish actual-use value or a current conversion approval. A real delay could also affect prices and costs, which this isolated timing variation holds fixed.

Case 6 Value installed machinery and separate disposal

Question: Use File D to compute installed replacement, physical loss, functional allowance, successive external loss and the separate disposal proceeds.

1. Installed modern equivalent: 3.2 + 0.2 + 0.1 + 0.4 + 0.1 = PHP 4m.

2. Physical loss: 4m × 20% = PHP 0.8m. After physical and functional: 4 − 0.8 − 0.3 = PHP 2.9m.

3. External loss: 2.9m × 10% = PHP 0.29m. Installed-use indication = PHP 2.61m.

4. Separate net disposal: 1.8 − 0.2 − 0.1 = PHP 1.5m.

Defense: The PHP 1m excess capacity in the older benchmark is already removed from the modern base. Each remaining allowance uses the prescribed category and base. The disposal costs belong to a different premise.

Error check: Deducting another PHP 1m or taking external loss as 10% of the original PHP 4m changes the stipulated calculation. Do not subtract dismantling costs from installed use or relabel a teaching amount as a specialist certification.

Case 7 Resolve the legal premise and sketch discrepancy

Question: File C's secondary GIS sketch shows 10,200sqm against the stipulated survey's 10,000sqm. Compute the discrepancy and diagnostic amount at PHP 3,000/sqm. Does the sketch or development residual establish an approved subdivision?

1. Difference: 10,200 − 10,000 = 200sqm.

2. Difference relative to survey: 200/10,000 × 100 = 2%.

3. Diagnostic amount: 200 × 3,000 = PHP 600,000.

4. No. The unverified sketch does not replace the stipulated survey; the conditional residual does not establish the required permissions.

Defense: Keep the current agricultural interest separate from the assumed approved-development scenario. Identify actual permissions, applicable agrarian status, planning constraints and practical feasibility as evidence needed for a supported use conclusion.

Error check: Using the sketch to claim more lots, rounding a theoretical fractional lot upward, or adding PHP 600,000 automatically to value confuses sensitivity with verified area and entitlement. The diagnostic rate is not a certified land adjustment.

Case 8 Compute assessed value principal and cap variation

Question: Use File E to show land and improvement assessments, raw annual principal and the independent eligible first-year cap variation.

1. Land assessed: 1.8m × 20% = PHP 0.36m. Improvement assessed: 2.7m × 40% = PHP 1.08m. Combined assessed amount = PHP 1.44m.

2. Raw basic: 1.44m × 2% = PHP 28,800. Raw SEF: 1.44m × 1% = PHP 14,400. Principal = PHP 43,200.

3. Eligible basic ceiling: 24,000 × 1.06 = PHP 25,440. Eligible SEF ceiling: 12,000 × 1.06 = PHP 12,720.

4. Restricted capped total: min(28,800,25,440) + min(14,400,12,720) = PHP 38,160.

Defense: The base exercise and cap variation are different scenarios. Eligibility and equal relevant baseline-date amounts are expressly supplied. File A's sales indication is not replaced by this assessed amount.

Error check: Applying the levies directly to PHP 4.5m ignores the assessment stage. Adding penalties or discounts would introduce excluded items. The first-year variation does not establish a permanent national cap or actual locality-specific liability.

Case 9 Review a materially flawed conclusion

Question: A draft says “File C is a fully approved subdivision worth PHP 31m: 18m receipts plus File A 4.68m, File B 5m and File D 2.61m. All assets were fully inspected and certified.” The record supports neither the approvals nor those certifications. Identify the arithmetic and foundational defects.

1. The listed amounts sum to PHP 30.29m, not PHP 31m.

2. PHP 18m is nominal gross receipts, not the conditional land residual.

3. Files A, B, C and D are independent assets and premises; no portfolio inquiry was defined.

4. Approvals and full certifications are unsupported. Withhold an unconditional File C conclusion and obtain the required evidence.

Defense: A revised extract should identify the actual agricultural interest, preserve the assumed development conditions and state the restricted PHP 6,549,587 residual separately. Retain the review finding and evidence required for resolution.

Error check: Changing the draft to PHP 30.29m only repairs its addition. It does not fix the wrong asset boundary, gross-receipt substitution or false approval and inspection claims.

Case 10 Separate rating arithmetic from learning readiness

Question: A hypothetical two-subject rating illustration uses 70 and 80 with equal 50% weights. Separately, an internal capstone attempt has 16/20 MCQs, only 1/2 in tax and one unresolved false-certification claim. Interpret both.

1. Illustrative weighted average: 70 × 50% + 80 × 50% = 75. Both individual ratings exceed 50.

2. The rating illustration satisfies the two stated numerical conditions in RA 9646 section 15; it is not an official examination result.

3. Internal MCQ score: 16/20 = 80%. Tax subscore: 1/2 = 50%.

4. Against this chapter’s internal 80% overall, 70% per-domain and no-critical-error targets, the internal attempt is not ready. Rebuild tax and correct the certification claim, then retest.

Defense: The official legal rating conditions and internal competency targets answer different questions. A high overall practice score cannot establish that every domain is sound or that unsupported reporting is resolved.

Error check: Do not promise an examination pass or ranking from a small practice set. Preserve attempt conditions and use fresh altered-input cases to demonstrate transfer rather than memorization.

19 Report exercise and material review

Before reading the model response, rewrite the following deliberately flawed extract in 120–180 words. Use File C alone and preserve its actual agricultural inquiry and separate development scenario. Record at least five defects and one material finding with a required action.

Intentionally flawed extract

File C is a fully approved twenty-lot subdivision with a certified market value of PHP 31,000,000. The result is derived by adding PHP 18,000,000 subdivision receipts, File A's PHP 4,680,000 residence indication, File B's PHP 5,000,000 rental indication and File D's PHP 2,610,000 installed machinery indication. The GIS sketch confirms all boundaries. All assets have been fully inspected and independently engineering-certified. Every required conversion and project permission is complete. No further evidence is needed, and the report is fully compliant with all current and future standards. The aggregate amount may be used as File C's present agricultural-land value.

Your response must address

Area	Required evidence and treatment
Assignment and dates	Actual agricultural ownership interest and 30 Sep 2026 date; memorandum date separate
Evidence	Survey and sketch status retained; required permissions unresolved
Method and calculation	Conditional timed residual 6,549,587; gross receipts not land value
Interpretation	Other assets excluded; actual-use conclusion unresolved
Issue and review	No false certification or blanket future compliance; finding and action retained

Finding record: ID; document version; contradicted or missing evidence; effect; required action; responsible role; verification evidence; open or resolved status. A corrected sum does not resolve a false legal premise or invented certification.

20 Configurable timed forms

Choose the form, question set, time budget and open/closed-book mode before starting. Hide solutions and explanations during a scored attempt. These original forms are flexible learning exercises, not official PRC examination schedules.

Form	Question set	Default time budget	Scoring
A Closed book MCQ	20 original MCQs	40 min solve + 10 min audit = 50 min	20 points; record eight competency subscores
B Quantitative case form	Cases 1–6 and 8; use dossiers, hide solutions	5 min setup + 70 min solve + 15 min audit = 90 min	Seven cases × 10 = 70 points; rubric by case
C Integrated memorandum form	Cases 7 and 9 plus File C report exercise	5 min setup + 40 min analysis + 20 min memorandum + 10 min review = 75 min	Three tasks × 10 = 30 points; material-evidence flag

Attempt control record

Form and version [_____] Date [_____]

Mode [open book / closed book] Selected items [_____]

Time budget [_____] Start [_____] Finish [_____]

Elapsed time [_____] Unfinished items [_____]

Raw score [_____] Correct but guessed items [_____]

Critical issues [_____] Retest date [_____]

For a shorter diagnostic, select a subset and record its denominator. Reordered options do not create new questions. For a transfer retest, change only the stated inputs, retain the selected premise and check the recomputed solution. Never combine scores from different denominators without labeling the comparison.

21 Original scoring rubric and competency map

Worked cases and report tasks: score each area 0–2, maximum 10 per task. A partial arithmetic error with sound setup differs from an unsupported foundation. Preserve a separate material-error flag for wrong interest, invented approval/certification or incompatible premise. The rubric is an original learning tool.

Area	Scoring guidance
Assignment and evidence	2: interest dates evidence status and material limits correct; 1: incomplete; 0: wrong foundation
Model selection	2: method premise inclusions and bases correct; 1: incomplete explanation; 0: incompatible model
Calculation	2: all material results correct with units; 1: minor error with sound setup; 0: material error
Interpretation	2: result and limits explained; 1: weak qualification; 0: output mislabeled
Report control	2: clear traceable conclusion and review actions; 1: incomplete record; 0: unsupported certification

MCQ competency map

Domain	Items	Earlier lessons	Typical error
C1 Scope rights and evidence	1–2	1 3 8 9 12 16 23 33	Wrong interest; assumed approvals; certified sketch
C2 Sales comparison	3–4	7 24 28	Wrong sign; asking price treated as sale; unsupported weights
C3 Cost and reconciliation	5–6	25 28	Loss counted twice; land confused with improvement
C4 Income and DCF	7–10	5 6 26 27	Vacancy base; duplicate expense; terminal timing; rate mismatch
C5 Development residual	11–13	3 16 17 27 30	Gross receipts relabeled land; wrong area; missing timed costs
C6 Machinery	14–15	25 29 30	Wrong installed base; duplicated excess capacity; loss sequence
C7 Assessment and tax	16–17	18 20 21 22 31 32	Market/assessed/tax confusion; cap applied beyond scope
C8 Reporting ethics and readiness	18–20	8 10 11 34 35	False certification; proposal promoted to rule; score misread

22 Focused remediation and transfer practice

Log each error as knowledge, scope, evidence, sign, unit, timing, arithmetic, interpretation or reporting. Record the expected proposition, your answer and the reason for the mismatch. Correct an unsupported premise even when its calculation was right.

Error	Repair task	Changed-input retest
Scope or approval claim	Rebuild interest condition and missing-evidence statement	Use same numbers under actual-use and assumed-approved premises; explain difference
Sales sign or weights	Recompute each normalized transaction from unadjusted price	Reverse a comparable's superiority and justify the adjustment sign
Cost double counting	Reconcile each loss to its cost base and included configuration	Remove a duplicated allowance and explain why it was already included
NOI or rate mismatch	Rebuild rent loss other income expenses and financing split	Change vacancy to 12%; retain net other income and inclusive expenses
DCF timing	Draw a dated cash-flow table and locate terminal forward income	Change discount to 11%; verify timing and net sale proceeds
Development omissions	Separate receipts non-land costs PV allowances and residual	Change lot price to 850,000; keep the supplied timing and deductions
Machinery sequence	Rebuild installed cost and each remaining base	Change external loss to 15%; retain the same distinct loss sequence
Tax stage confusion	Compute asset-specific assessed bases before levies	Change improvement AL to 30%; then recompute the raw principal
Reporting evidence	Rewrite the claim and record evidence needed	Review a new extract that omits a material assumption
Current source status	Date the claim and verify operative versus proposed source	Explain an exposure draft without treating it as current national law

Retest calculation models appear after the worksheet responses. Preserve the same assumptions unless the retest explicitly changes them. A later correct answer without its explanation does not close an evidence or premise error.

23 Final readiness record

Original internal targets: at least 80% overall MCQs, at least 70% in each domain, at least 80% across the selected worked/report tasks, completion within the chosen budget and no unresolved material-evidence or premise defect. These targets support learning decisions; they are not PRC pass thresholds or ranking predictions.

On this small 20-item set, the domain targets can require a higher total than the overall target because each domain has few items. Treat the first attempt as a diagnosis. Demonstrate transfer on altered inputs and repeat a broader domain check before recording readiness.

Readiness field	Your record
Attempt form version mode date	_____
MCQ overall and eight domain subscores	_____
Worked and report task results	_____
Time used and unfinished tasks	_____
Critical issues and evidence of correction	_____
Fresh retest and verified explanation	_____
Decision and next specific action	_____

Illustrative official rating arithmetic

Hypothetical equal-weight ratings 70 and 80 give average 75 and both exceed 50. They meet the two stated numerical conditions in RA 9646 section 15. This illustration is not an official result or complete licensing decision. A future examination follows its applicable PRC program.

Close a weakness only after you can rebuild the model, explain the interest and conditions, solve a changed-input version and state a supported conclusion. Mark the 36-lesson sequence completed separately from the final competency review.

24 Capstone worksheet

Suggested time: 60 minutes. Use the lines for key points and separate paper for calculations and the 120–180-word report. Record units, premises and source status in each answer.

1 Assignment and evidence

Define Files A–E by interest, condition and output. Explain why the actual agricultural inquiry, assumed subdivision and installed/disposal machinery cannot be combined without a new scope.

_____

_____

_____

2 Residential sales and cost

Rebuild the three adjustments and weighted result; compute depreciated improvements and cost total. Calculate the gap and defend the supplied reconciliation.

_____

_____

_____

3 Rental property and forecast

Compute EGI, expenses, NOI, capitalization and cash after debt service. Then show terminal value, selling costs, final-year cash flow and DCF PV.

_____

_____

_____

4 Development residual and delay

Calculate net area, lots, gross receipts, dated net flows and land residual. Move flows one year later under the stated variation and quantify the timing effect.

_____

_____

_____

Capstone worksheet continued

5 Machinery and disposal

Compute installed modern equivalent and each allowance on the prescribed base. Compute separate disposal proceeds and explain why excess capacity and removal costs must not be counted twice.

_____

_____

_____

6 GIS evidence and tax

Calculate the File C area discrepancy and diagnostic amount. Separately rebuild File E assessed components, annual principal and eligible capped total; state each inquiry's limits.

_____

_____

_____

7 Report and review

Rewrite the flawed File C extract in 120–180 words. State the actual interest, date, scenario conditions, restricted residual, missing evidence and conclusion status. Record one material review finding.

_____

_____

_____

8 Readiness and remediation

Interpret the 70/80 rating illustration and the 16/20 internal attempt with tax 1/2 and a critical report issue. Select earlier lessons and draft a focused repair and altered-input retest plan.

_____

_____

_____

25 Original practice test

Choose one best answer. Default Form A time: 40 minutes plus 10 minutes audit. These newly authored questions use the dossiers and stated assumptions; they are not actual or recalled PRC items. Record guessed answers for later review.

1. File C lacks established residential-use permissions, but its subdivision model assumes them. The best treatment is:

A. An unconditional approved-use opinion

B. A complete conversion certification

C. A separate conditional scenario with actual-use evidence unresolved

D. Proof that the current agricultural use is impossible

2. The 10,200sqm secondary sketch differs from the stipulated 10,000sqm survey. At diagnostic PHP 3,000/sqm, the amount is:

A. PHP 60,000 certified gain

B. PHP 600,000 sensitivity without area certification

C. PHP 6m additional value

D. PHP 200,000 final value adjustment

3. File A comparable 1 uses 4.6m +0.2m −0.1m. Its adjusted amount is:

A. PHP 4.7m

B. PHP 4.5m

C. PHP 4.9m

D. PHP 4.6m

4. Adjusted transactions 4.7m, 4.7m and 4.6m at 40%, 40%, 20% give:

A. PHP 4.666667m

B. PHP 4.68m

C. PHP 4.8m

D. PHP 14m

5. File A's replacement improvements 3.6m less distinct losses 0.6m and 0.3m give:

A. PHP 3m

B. PHP 4.5m improvements alone

C. PHP 2.7m

D. PHP 1.8m

6. The improvement amount 2.7m plus land 1.8m gives a cost indication of:

A. PHP 4.68m

B. PHP 4.5m

C. PHP 2.7m

D. PHP 6.3m

7. File B potential rent 600,000, rent-only loss 10% and net-collected other income 24,000 give EGI:

A. PHP 564,000

B. PHP 624,000

C. PHP 540,000

D. PHP 561,600

8. EGI 564,000 less supplied inclusive operating expenses 164,000 gives NOI:

A. PHP 564,000

B. PHP 220,000

C. PHP 360,000

D. PHP 400,000

9. Compatible property NOI 400,000 capitalized at 8% gives:

A. PHP 2.75m

B. PHP 50m

C. PHP 3.2m

D. PHP 5m

10. File B's three-year DCF, including net terminal proceeds, gives nearest-peso PV:

A. PHP 5,000,000

B. PHP 6,075,000

C. PHP 5,635,000

D. PHP 5,274,981

11. File C site 10,000sqm, net saleable 60% and lots 300sqm gives:

A. Twenty lots under the supplied area model

B. Thirty-four certified lots

C. Sixty lots

D. Twenty-one approved lots automatically

12. File C year-one receipts 9m, selling cost 5% and other costs 4m give net future flow:

A. PHP 5m

B. PHP 8.55m

C. PHP 4.55m

D. PHP 6.55m

13. File C PV residual with flows 4.55m/1.1 and 6.55m/1.1² less valuation-date allowances 3m is nearest peso:

A. PHP 18,000,000

B. PHP 6,549,587

C. PHP 9,549,587

D. PHP 5,681,443

14. File D modern installed replacement components 3.2m, 0.2m, 0.1m, 0.4m and 0.1m sum to:

A. PHP 4m

B. PHP 5m

C. PHP 3m after another excess-capacity deduction

D. PHP 3.2m

15. File D 4m less 20% physical, less functional 0.3m, then 10% external on the remainder gives:

A. PHP 1.61m

B. PHP 2.5m

C. PHP 1.5m installed value

D. PHP 2.61m

16. File E land 1.8m at 20% plus improvements 2.7m at 40% gives assessed total:

A. PHP 4.5m

B. PHP 1.44m

C. PHP 0.9m

D. PHP 4.68m

17. On assessed value 1.44m, supplied basic 2% and SEF 1% give raw annual principal:

A. PHP 38,160 automatically

B. PHP 135,000

C. PHP 43,200

D. PHP 28,800 including SEF

18. The flawed File C extract's 18m +4.68m +5m +2.61m actually sums to 30.29m. Correcting its addition:

A. Resolves all approval and certification defects

B. Makes it a supported portfolio value

C. Certifies a current subdivision

D. Leaves material scope evidence and gross-receipt defects unresolved

19. A 2026 exposure draft intended for a future IVS edition should be:

A. Used retroactively as national law

B. Treated as proof of completed property approvals

C. Distinguished from the operative standards for the assignment

D. Applied as the current edition solely because its filename is newer

20. Hypothetical ratings 70 and 80 at equal weights give 75, with both above 50. This establishes:

A. The two stated numerical rating conditions are met in the illustration

B. A guaranteed official pass and top ranking

C. Complete professional licensing eligibility

D. That an internal tax competency score of 50% is sufficient under this chapter's 70% target

26 Answers and model responses

Practice test answer key

Question	Answer	Question	Answer
1	C	11	A
2	B	12	C
3	A	13	B
4	B	14	A
5	C	15	D
6	B	16	B
7	A	17	C
8	D	18	D
9	D	19	C
10	D	20	A

1. C The assumed scenario does not establish actual permission or the unconditional current-use value. Preserve its conditions.

2. B 200sqm × 3,000 =600,000. The arithmetic does not verify legal area or create a value increase.

3. A The supplied additive adjustments give 4.7m. Apply them to the comparable within the stated direction.

4. B 1.88m +1.88m +0.92m =4.68m. Equal weighting would replace the supplied rationale.

5. C 3.6 −0.6 −0.3 =2.7m before the separate land amount.

6. B 2.7m +1.8m =4.5m. It supports the same-condition cross-check, not automatic equal reconciliation.

7. A 600,000 −60,000 +24,000 =564,000. The loss does not apply again to net-collected other income.

8. D NOI is 400,000. Tax and reserve are already included; debt service is a separate financing item.

9. D 400,000/0.08 =5m. Capitalizing after-debt cash would mismatch the stipulated property model.

10. D Discount 400,000, 420,000 and 6,075,000 from years one, two and three at 10%. The latter includes year-three NOI and net sale proceeds.

Answer explanations continued

11. A 6,000/300 =20. The scenario assumes required permissions and feasibility; arithmetic does not grant approval.

12. C 9 −0.45 −4 =4.55m. This is a dated future flow before discounting, not land value.

13. B PV future flows 9,549,586.78 less 3m gives 6,549,586.78. The delayed variant is a different timing scenario.

14. A The distinct installed components total 4m. Excess capacity is already removed from this modern base.

15. D 4 −0.8 −0.3 =2.9m; 2.9 ×0.9 =2.61m. The external allowance uses the stated remaining base.

16. B Land assessed 0.36m plus improvements 1.08m =1.44m. Market and assessed amounts are different.

17. C Basic 28,800 plus SEF 14,400 =43,200. The eligible capped variation is separately defined.

18. D The mathematical correction does not repair the independent-asset aggregation, wrong residual or unsupported approval/certification claims.

19. C Proposal, adoption and application are separate. Verify the operative edition and applicable Philippine framework.

20. A The illustration addresses RA 9646 section 15 numerical conditions. Official results, eligibility and this capstone's internal targets are separate.

Worksheet model responses

Response 1

A: ownership in land and existing residence. B: ownership subject to leases, compatible stipulated property stream. C: actual agricultural parcel, separate assumed approved-development model. D: one owned machine in installed use, separate disposal premise. E: stipulated assessed-value/principal-tax inquiry. All valuation inquiries use 30 September 2026; teaching memorandum 12 October. Their outputs are not a defined portfolio.

Response 2

Adjusted sales 4.7m, 4.7m, 4.6m. Weighted result 4.68m with 40/40/20 support. Improvement 3.6 − 0.6 − 0.3 =2.7m; plus land 1.8m =4.5m. Gap 0.18m, about 3.85% of sales. The given sales reliability supports its stronger role; an equal approach mean has no supplied rationale.

Response 3

Potential rent 600,000; loss 60,000; EGI 564,000; expenses 164,000; NOI 400,000. Capitalization 5m; cash after debt service 220,000. DCF terminal 5.75m less 115,000 selling costs gives 5.635m; plus final NOI 440,000 gives 6.075m at year three. PV approximately 5,274,981. Separate stabilized and forecast assumptions.

Response 4

Area 6,000sqm; twenty lots; total receipts 18m. Net future flows 4.55m and 6.55m. PV of flows 9,549,587 less fees 1m and profit 2m gives conditional residual 6,549,587. Delayed-flow residual 5,681,443; decline about 868,144. PV allowances are unchanged; actual cost/price effects and approvals remain separate.

Worksheet model responses continued

Response 5

Modern installed base 4m. Physical loss 0.8m; functional 0.3m; remainder 2.9m. External loss 0.29m; indication 2.61m. Disposal 1.8 − 0.2 − 0.1 =1.5m. Excess capacity is already removed from the modern base, and disposal costs belong to the separate disposal premise.

Response 6

Area difference 200sqm, or 2% of survey; diagnostic amount 600,000 does not certify area or value. File E assessed land 360,000 and improvements 1,080,000 total 1,440,000. Basic 28,800 and SEF 14,400 total 43,200. Eligible separate ceilings 25,440 and 12,720 give 38,160. Actual applicable instruments and records remain necessary.

Response 7

Identify File C’s agricultural ownership interest at 30 September 2026. Report the separately assumed twenty-lot scenario and restricted residual 6,549,587 with its timed inputs and PV allowances. State that permissions and feasibility are assumed, the sketch is unverified and no certification is supplied. Withhold unconditional actual-use conclusion. Finding: unsupported approved-use claim; evidence C-01/C-03; effect material premise; action obtain relevant records; status open.

Response 8

70 and 80 at equal weights give 75, with both above the statutory subject floor. This is a numerical illustration only. Internal 16/20 is 80%, but tax 50% misses the chapter’s 70% domain target and the critical report claim is unresolved. Revisit Lessons 18/20–22/32 for tax and 10/23/34 for reporting; rebuild with changed inputs and verify the corrected explanation.

Report model and retest calculations

Original corrected memorandum

The inquiry concerns the ownership interest in File C's existing agricultural parcel as of 30 September 2026. The stipulated survey area is 10,000sqm; the conflicting 10,200sqm secondary sketch remains unverified. A separate twenty-lot development model assumes all required permissions and practical feasibility. With the supplied prices, costs, year-end receipt schedule, 10% discount rate and distinct valuation-date fees and profit allowances, it produces a restricted land residual of PHP 6,549,587 rounded. That conditional result does not establish current conversion or project approval. The actual-use conclusion remains unresolved pending the applicable agrarian, planning and project records and further relevant market evidence. Files A, B and D are independent assets and are not included in this land inquiry. No inspection or specialist certification beyond the stipulated record is claimed. The memorandum preserves the scope, assumptions and missing evidence before an unconditional final opinion can be considered.

Altered input retest models

Changed input	Restricted recomputed result
Rental vacancy 12%	600,000 −72,000 +24,000 =552,000 EGI; NOI 388,000; capitalization 4,850,000
DCF discount 11%	400,000/1.11 +420,000/1.11^2 +6,075,000/1.11^3 =5,143,229 nearest peso
Development lot price 850,000	Receipts 8.5m per year; selling 0.425m each; net 4.075m and 6.075m; residual 5,725,207 nearest peso
Machinery external 15%	2.9m ×85% =2.465m installed-use indication
Tax improvement AL 30%	Land assessed 0.36m + improvements 0.81m =1.17m; basic 23,400 +SEF 11,700 =35,100 raw principal

The retests preserve the other supplied assumptions. They are not new market evidence. For judgment retests, evaluate the explanation against the scope and evidence rubric rather than accepting a number alone.

27 Essential terms and formula review

Scope Defined interest use users date basis and condition.

Normalized comparable Observation adjusted within an identified evidence model.

NOI Defined property net operating income before the excluded financing items.

Terminal value End-of-forecast asset amount under the chosen exit assumptions.

Residual Remainder attributable to land after the specified non-land deductions.

Installed premise Machine analyzed in the supplied installed configuration and use.

Successive allowance Deduction on the specified remaining base.

Assessed value Valuation amount multiplied by the applicable assessment level.

Reconciliation Reasoned selection based on compatible evidence and reliability.

Critical issue Material unsupported foundation requiring correction or further work.

Transfer Correct reasoning under changed data or a new case.

Model	Formula or check
Weighted sales	Sum of adjusted indications × weights; weights sum 1
Cost	Land + existing-work replacement − distinct losses
Income	Defined NOI / compatible capitalization rate
DCF	Sum of dated cash flows / (1 + r)^t, including net exit
Development	PV future net receipts − valuation-date non-land allowances
Machinery	Apply each distinct allowance to its prescribed base
Tax	Assessed components × each supplied levy rate
Percentage change	(New − old) / old; identify the denominator

Model accuracy does not establish permissions, input verification, standards compliance or an unconditional professional opinion.

28 Sources and final preparation status

Research reviewed 12 October 2026. This is the final chapter of the current 36-lesson curriculum. The property files, narrative, examples, rubric, forms and questions are original educational work. Completing the chapter sequence and demonstrating competency are recorded as separate milestones.

Numerical quality control recalculated cash flows using decimal arithmetic and checked alternative aggregate/discount identities, reconciled subtotals and verified every correct-choice proposition. The five changed-input retests were recalculated separately. No external professional certification is implied.

R01 RA 9646

Sections 3,13 and 15: professional reporting, examination subject framework and numerical rating requirements. The teaching rubric and learning targets are original and are not prescribed by this statute.

https://lawphil.net/statutes/repacts/ra2009/ra_9646_2009.html

R02 PRC 2026 program

Program approved 2 March 2026 for 7 July 2026: first-page subject coverage and equal 50% weights; applicable future programs must be checked separately.

https://www.prc.gov.ph/sites/default/files/REA%20exam%20program%202026.pdf

R03 IVS concepts effective 2025

IVSC-authored redline hosted by ICAEW. Current wording visually distinguished from deletions on printed 41–42 for highest and best use,55–56 for DCF and cash-flow consistency; reporting concepts link to IVS 106 and Lesson 34. Original case rates and numerical inputs are not standards-prescribed.

https://www.icaew.com/-/media/corporate/files/technical/corporate-finance/valuation/ivs-effective-31-january-2025-redline-edition.ashx

Sources and preparation status continued

R04 RA 12001 transition

Section 29 on the first-year increase cap and component coverage. Eligibility and equal baseline-date amounts are supplied solely for the capstone variation; actual application requires relevant implementing and local records.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

R05 IVSC future consultation

2026 exposure-draft page identifies proposed future publication and effectivity. Proposal status remains separate from the operative edition and the applicable Philippine framework.

https://ivsc.org/consultations/ivs-exposure-draft-for-consultation-2026/

Current standards edition, applicable national requirements, legal updates and examination instructions require the appropriate authoritative record. The book’s original preparation content does not substitute for an official program or a signed appraisal assignment.

Back Matter

REALEX • Comprehensive Lessons and Practice
2027 Preparation Edition

Reference tools for the 36-lesson course
Prepared 13 October 2026 • Russell Famisaran

Use these appendices after a first reading and during case practice. They provide navigation, quick calculations and reproducible records. Read the referenced lessons for fuller explanations and the conditions attached to a rule or model.

Contents

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How to read the references

Lesson references identify the numbered lessons, not final book pages. The B-series page numbers belong to this back-matter packet. Replace the index with final pagination when the complete volume is assembled.

Definitions are concise working explanations for this course, not verbatim statutory or standards definitions. The formulas use fictional teaching inputs and consistent timing. Neither a listed rate nor a worked example establishes an adopted tax rate, approved use or professional value conclusion.

The register is a selected navigation aid, not a new audit of every chapter or a complete bibliography. Each lesson retains its own source notes and research date. The 2027 edition label does not establish a 2027 examination schedule or confirmed continuity of a prior examination program.

Appendix A • Working glossary

Alphabetical working definitions • Numbers refer to lessons.

Ad valorem A charge expressed in relation to a value base; identify the legally applicable base and rate. [Lessons 18, 32]

Adjustment A supported change to comparable evidence to make it more consistent with the subject and valuation premise. [Lessons 7, 24]

Agrarian conversion A regulatory change in agricultural land use requiring the applicable authority and conditions; zoning alone does not establish completion. [Lessons 16]

Annuity A sequence of equal cash flows at equal intervals; distinguish end-period from beginning-period timing. [Lessons 6]

Appraisal An analysis leading to a value opinion for a specified property interest, date and assignment context. [Lessons 1, 9, 34]

Appraisal review An examination of another valuation's scope, evidence, reasoning and reporting against the review assignment. [Lessons 34]

Assessed value The amount obtained by applying the applicable assessment level to the relevant fair market value for assessment purposes. [Lessons 18, 32]

Assessment level The percentage applied to the relevant value base to determine assessed value; use the applicable classification and authority. [Lessons 18, 32]

Assessment ratio An assessment amount divided by a sale price or other reference measure; its interpretation depends on both numerator and denominator. [Lessons 31]

Assumption A premise accepted for analysis that must be identified and tested for materiality and reasonableness. [Lessons 9, 28, 34]

Use the assignment-specific or authoritative definition whenever wording controls the answer.

Appendix A • Working glossary (continued)

Alphabetical working definitions • Numbers refer to lessons.

Basis of value The governing definition and conditions under which a value opinion is developed. [Lessons 8, 9]

Capitalization rate The rate connecting a specified annual income stream to a value under a capitalization model. [Lessons 26]

Cash flow A receipt or payment assigned to a particular time and analysis perspective. [Lessons 5, 6, 27]

Coefficient of variation Standard deviation divided by the mean, usually expressed as a percentage; avoid interpreting it when the mean is near zero. [Lessons 7]

Comparable Evidence from a sufficiently relevant property or transaction, subject to verification and explanation of differences. [Lessons 7, 23, 24]

Condominium interest The unit and associated common-property rights described by the governing instruments and applicable law. [Lessons 15]

Cost approach An approach relating land value and improvement cost to an indication after supported deductions for losses in value. [Lessons 25]

Data provenance The record of where data came from, when it was collected and how it was changed or used. [Lessons 22, 23, 33]

Debt service Required principal and interest payments for the stated period; it is distinct from property operating expenses. [Lessons 5, 26]

Depreciation in valuation A loss in improvement value from physical, functional or external causes; it is not necessarily accounting depreciation. [Lessons 25, 29]

Use the assignment-specific or authoritative definition whenever wording controls the answer.

Appendix A • Working glossary (continued)

Alphabetical working definitions • Numbers refer to lessons.

Development residual The amount remaining for a specified development input after consistent receipts, costs, timing and other allowances. [Lessons 27]

Discount rate The rate used to convert future cash flows to a common present date, consistent with risk and the cash-flow definition. [Lessons 6, 27]

Discounted cash flow A model converting explicitly timed future receipts and payments to present value. [Lessons 27]

Easement A limited right involving use of or a burden on land; verify its extent, parties and legal effect from the actual records. [Lessons 1, 12, 13]

Economic life The period over which an asset is expected to contribute economically to its use, under the stated analysis. [Lessons 25, 29]

Effective age An estimate reflecting condition and utility rather than calendar age alone. [Lessons 25]

Effective gross income Potential income adjusted for relevant vacancy and collection effects, plus the stated other income. [Lessons 26]

Encumbrance A claim, charge or restriction affecting an interest; identify the actual instrument and its relevance to the assignment. [Lessons 1, 12]

Evidence hierarchy A reasoned ordering of sources by fitness, authority and reliability for the particular proposition. [Lessons 23, 34]

External obsolescence A loss associated with influences outside the asset, supported separately from physical and functional effects. [Lessons 25, 29]

Use the assignment-specific or authoritative definition whenever wording controls the answer.

Appendix A • Working glossary (continued)

Alphabetical working definitions • Numbers refer to lessons.

Fair market value for assessment The value base used in the applicable assessment framework; identify its governing schedule, date and procedures. [Lessons 18, 21, 32]

Functional obsolescence A loss associated with a mismatch between an asset's design or capacity and the utility demanded by its market. [Lessons 25, 29]

Geographic information system A system for managing and analysing spatially referenced information and related attributes. [Lessons 4, 33]

Gross rent multiplier A value-to-gross-rent relationship using consistent periods and income definitions. [Lessons 26]

Highest and best use The use tested for legal permissibility, physical possibility, financial feasibility and maximum productivity under the assignment. [Lessons 3, 17]

Inspection An observation process directed by scope, access and purpose; limitations and unobserved conditions must be recorded. [Lessons 23]

Intended use The purpose for which the valuation results are to be applied, as established in the assignment. [Lessons 9, 34]

Intended user A person or group identified in the assignment as a user of the valuation report. [Lessons 9, 34]

Internal rate of return A discount rate that makes a cash-flow series' net present value zero; some patterns produce several or no meaningful roots. [Lessons 5, 6, 27]

Leased fee interest The owner's interest subject to a lease; contractual and market terms can affect its analysis. [Lessons 1, 26]

Use the assignment-specific or authoritative definition whenever wording controls the answer.

Appendix A • Working glossary (continued)

Alphabetical working definitions • Numbers refer to lessons.

Leasehold interest Rights and obligations held under a lease; analyse the actual terms, remaining period and relevant market conditions. [Lessons 1, 26]

Liquidity The ability to convert an asset to cash within a relevant period and at a relevant cost. [Lessons 2, 5]

Loan-to-value ratio A loan amount divided by the consistently defined value used for that lending analysis. [Lessons 5]

Market rent An estimate of rent under the stated market terms and valuation date, distinct from rent in an existing contract. [Lessons 26]

Market value A value basis centred on a hypothetical market transaction under its governing definition and conditions. [Lessons 2, 8, 9]

Mass appraisal Valuation of a group of properties using a common framework, models and quality controls for a specified purpose. [Lessons 21, 31]

Net operating income Property income after relevant operating expenses under the model, before debt service and other excluded items. [Lessons 26]

Net present value The sum of signed cash flows discounted to the analysis date, including the initial outlay when applicable. [Lessons 5, 6, 27]

Physical deterioration Loss associated with wear, damage or condition, supported by the relevant observations and cost or market evidence. [Lessons 25, 29]

Present value The value at a chosen date of a future cash flow discounted under the stated rate and timing. [Lessons 6]

Use the assignment-specific or authoritative definition whenever wording controls the answer.

Appendix A • Working glossary (continued)

Alphabetical working definitions • Numbers refer to lessons.

Reconciliation Reasoned evaluation of indications and evidence quality to reach a conclusion; it is not an automatic average. [Lessons 28, 34]

Replacement cost Cost of an asset providing comparable utility under the stated cost basis and date. [Lessons 25, 29]

Reproduction cost Cost of recreating an equivalent replica under the stated cost basis and date. [Lessons 25]

Residual interest The remaining specified interest or amount after the model's identified claims or allowances; define which residual is meant. [Lessons 1, 27]

Reversion The interest or cash-flow benefit returning at the end of a specified term or holding period. [Lessons 26, 27]

Saleable area Area assumed or verified as available for sale under the development plan; deductions and permissions require support. [Lessons 14, 17, 27]

Schedule of Market Values The valuation schedule used within the applicable local assessment framework; check approval, effectivity and coverage. [Lessons 20, 21, 32]

Sensitivity analysis A test showing how a result changes when selected assumptions change; it is not a probability statement by itself. [Lessons 27, 28]

Special assumption An assignment premise involving facts different from those existing, or a premise meeting the governing standard's special-assumption criteria. [Lessons 8, 9]

Specialized property Property whose characteristics, use or trading evidence require tailored analysis rather than untested generic inputs. [Lessons 29, 30]

Use the assignment-specific or authoritative definition whenever wording controls the answer.

Appendix A • Working glossary (continued)

Alphabetical working definitions • Numbers refer to lessons.

Terminal value The estimated value at the end of an explicit projection period under a specified exit method. [Lessons 27]

Title evidence Records used to establish or investigate rights and restrictions; a tax declaration or map is not a substitute for all title enquiries. [Lessons 12, 23]

Uncertainty Limits on confidence arising from evidence, assumptions, market conditions or methods that should be communicated proportionately. [Lessons 28, 34]

Unit rate An amount per defined unit, such as pesos per square metre; numerator and denominator must refer to consistent interests and areas. [Lessons 6, 24]

Usufruct A right involving enjoyment of another's property under governing conditions; value the specified right and term rather than assume full ownership. [Lessons 1, 13, 30]

Vacancy allowance An estimate of income loss associated with vacant space over the stated period and model. [Lessons 26]

Valuation date The date to which the value opinion relates, which may differ from inspection and report dates. [Lessons 9, 34]

Weighted mean A sum of observations multiplied by weights that total one, or divided by their total weight. [Lessons 7, 24]

Workfile The retained evidence, calculations and reasoning supporting an assignment and its reported conclusions. [Lessons 23, 34]

Zoning A land-use control whose classification and conditions must be checked with the competent authority and relevant date. [Lessons 3, 17]

Use the assignment-specific or authoritative definition whenever wording controls the answer.

Appendix B ● Formula desk reference

Amounts are fictional. m = million; CF = signed cash flow; i = effective rate per period; n = periods; ^ means raised to a power. Use unrounded intermediates.

B01 Percentage change

Δ% = (new − old) / old × 100

Check: ₱550,000 from ₱500,000: 10%.

Use: An old value of zero makes this expression undefined; identify the denominator. [Lessons 6, 7]

B02 Unit price

u = total price / relevant area

Check: ₱4,800,000 / 240 m² = ₱20,000/m².

Use: Verify the included interest, usable area and transaction terms before comparison. [Lessons 6, 24]

B03 Weighted mean

$\bar{x}w = \Sigma(w_i x_i) / \Sigma w_i$

Check: ₱4.7m, ₱4.7m and ₱4.6m at 40%, 40%, 20%: ₱4.68m.

Use: Weights need an evidence rationale; this does not replace reconciliation. [Lessons 7, 24, 28]

B04 Arithmetic mean

$\bar{x} = \Sigma x_i / n$

Check: ₱18,000, ₱20,000 and ₱22,000/m²: ₱20,000/m².

Use: Check outliers, comparability and whether observations are equally informative. [Lessons 7]

B05 Coefficient of variation

CV = s / $\bar{x}$ × 100

Check: Supplied standard deviation 2,000 and mean 20,000: 10%.

Use: Use one consistent standard-deviation convention; a near-zero mean is problematic. [Lessons 7]

Appendix B ● Formula desk reference (continued)

Amounts are fictional. m = million; CF = signed cash flow; i = effective rate per period; n = periods; ^ means raised to a power. Use unrounded intermediates.

B06 Single-sum future value

$FV = PV(1 + i)^n$

Check: ₱100,000 at 10% for 2 periods: ₱121,000.

Use: i is the effective rate per period; n counts matching periods. [Lessons 6]

B07 Single-sum present value

$PV = FV / (1 + i)^n$

Check: ₱121,000 due in 2 periods at 10%: ₱100,000.

Use: This assumes one cash flow and the stated discounting convention. [Lessons 6]

B08 Ordinary-annuity present value

$PV = A[1 - (1 + i)^{-n}] / i$

Check: ₱10,000 at each year-end for 3 years at 10%: ₱24,868.52.

Use: For i = 0, PV = nA. Beginning-period flows require a timing adjustment. [Lessons 6]

B09 Ordinary-annuity future value

$FV = A[(1 + i)^n - 1] / i$

Check: ₱10,000 at each year-end for 3 years at 10%: ₱33,100.

Use: For i = 0, FV = nA. Do not treat beginning-period flows as end-period flows. [Lessons 6]

B10 Level loan payment

$A = P\, i / [1 - (1 + i)^{-n}]$

Check: ₱100,000, 10% per year, 3 year-end payments: ₱40,211.48 each.

Use: For i = 0, A = P/n. Fees and other charges need separate treatment. [Lessons 5, 6]

Appendix B ● Formula desk reference (continued)

Amounts are fictional. m = million; CF = signed cash flow; i = effective rate per period; n = periods; ^ means raised to a power. Use unrounded intermediates.

B11 Net present value

NPV = sum of CF(t) / (1 + i)^t, for t = 0 through n

Check: Outlay ₱100,000 at t=0; ₱60,000 at t=1 and t=2; 10%: ₱4,132.23.

Use: Use signed, consistently defined cash flows. A value indication excludes only what its premise requires. [Lessons 5, 6, 27]

B12 Internal rate of return

Find r such that the sum of CF(t) / (1 + r)^t equals zero

Check: −₱100,000 now and +₱110,000 in one year: r = 10%.

Use: Nonconventional signs may give multiple roots; IRR alone does not rank every project. [Lessons 5, 6, 27]

B13 Direct capitalization

V = annual NOI / R

Check: Annual NOI ₱400,000 / 8% = ₱5,000,000.

Use: R must fit the income definition, interest and market evidence; do not substitute a discount rate casually. [Lessons 26]

B14 Effective gross income

EGI = PGI − relevant income losses + other income

Check: ₱600,000 − ₱60,000 + ₱24,000 = ₱564,000/year.

Use: State whether other income is net or gross and avoid counting its costs twice. [Lessons 26]

B15 Net operating income

NOI = EGI − relevant operating expenses

Check: ₱564,000 − ₱164,000 = ₱400,000/year.

Use: Under this property model debt service is separate; classify expenses consistently. [Lessons 26]

Appendix B ● Formula desk reference (continued)

Amounts are fictional. m = million; CF = signed cash flow; i = effective rate per period; n = periods; ^ means raised to a power. Use unrounded intermediates.

B16 Gross rent multiplier

GRM = price / annual gross rent; V = rent × GRM

Check: ₱3,000,000 / ₱300,000 = 10; rent ₱320,000 × 10 = ₱3,200,000.

Use: Use the same rent stream and period as the evidence; expense differences can undermine transfer. [Lessons 26]

B17 Debt-service coverage

DSCR = NOI / annual debt service

Check: ₱400,000 / ₱200,000 = 2.00.

Use: This supplied definition uses property NOI; verify lender-specific definitions. [Lessons 5, 26]

B18 Loan-to-value

LTV = loan / stated value × 100

Check: ₱3,000,000 / ₱5,000,000 = 60%.

Use: Name the value basis and date; the ratio does not establish a permitted lending limit. [Lessons 5]

B19 Terminal capitalization

TV(n) = NOI(n + 1) / exit R

Check: Forward NOI ₱460,000 / 8% = ₱5,750,000 at end of year 3.

Use: Use forward stabilized income under this model, not an unexplained earlier-year income. [Lessons 27]

B20 Net exit proceeds

Net exit = TV − sale costs − specified exit liabilities

Check: ₱5,750,000 less 2% sale costs = ₱5,635,000.

Use: If added to year 3 income, discount both from year 3; do not discount the exit twice. [Lessons 27]

Appendix B ● Formula desk reference (continued)

Amounts are fictional. m = million; CF = signed cash flow; i = effective rate per period; n = periods; ^ means raised to a power. Use unrounded intermediates.

B21 Development residual

Land residual = PV(net nonland flows) − separate PV allowances

Check: ₱4.55m/1.1 + ₱6.55m/1.1² − ₱1m − ₱2m = ₱6,549,586.78.

Use: Here net flows are at years 1 and 2; the final allowances are already present values. Avoid double-counting profit. [Lessons 27]

B22 Illustrative lot capacity

Count = verified saleable area / uniform lot area

Check: 6,000 m² / 300 m² = 20 lots under supplied geometry.

Use: Area division alone cannot establish an approved subdivision layout or saleable yield. [Lessons 14, 17, 27]

B23 Cost indication

V = land + improvement cost − distinct losses

Check: ₱1.8m + ₱3.6m − ₱0.6m − ₱0.3m = ₱4.5m.

Use: Use supported cost and distinct deductions; do not duplicate losses in the land or improvement amounts. [Lessons 25]

B24 Supplied linear age-life model

Physical loss fraction = effective age / economic life

Check: Effective age 10 years / life 50 years = 20%; ₱4m × 20% = ₱0.8m.

Use: This is a stipulated proportional model, not a universal depreciation rule or automatic rate. [Lessons 25, 29]

B25 Successive loss allowances

Remaining = C(1 − p) − F; final = remaining(1 − e)

Check: ₱4m × 80% − ₱0.3m = ₱2.9m; then × 90% = ₱2.61m.

Use: p is physical loss; F an amount; e external loss on the stated remainder. Define every base. [Lessons 25, 29]

Appendix B ● Formula desk reference (continued)

Amounts are fictional. m = million; CF = signed cash flow; i = effective rate per period; n = periods; ^ means raised to a power. Use unrounded intermediates.

B26 Assessed value

AV = Σ(FMV component × applicable AL)

Check: ₱1.8m × 20% + ₱2.7m × 40% = ₱1.44m.

Use: These assessment levels are supplied teaching inputs; verify actual adopted levels and classification. [Lessons 18, 32]

B27 Illustrative principal tax

Basic = AV × b; SEF = AV × s; combined = basic + SEF

Check: ₱1.44m × 2% = ₱28,800; × 1% = ₱14,400; total ₱43,200.

Use: Supplied rates only. Identify exemptions, local authority, tax period and charges separately. [Lessons 18, 32]

B28 Stipulated eligible component cap

Allowed component = min(new component, baseline × 1.06)

Check: Basic: min(₱28,800, ₱24,000 × 1.06) = ₱25,440; SEF: ₱12,720; total ₱38,160.

Use: Use only when the scenario establishes eligibility, baseline, period and separate component treatment under the applicable rule. [Lessons 22, 32, 36]

B29 Polygon area by coordinates

Area = $\frac{1}{2}|\Sigma(x_i y_{i+1} - y_i x_{i+1})|$; close polygon

Check: (0,0), (20,0), (20,10), (0,10), metres: 200 m².

Use: Consistent planar coordinates required. A calculated area is not certification of legal boundaries. [Lessons 33]

B30 Mean assessment-to-sale ratio

Mean ratio = $\Sigma(\text{assessment}_i / \text{sale}_i) / n$

Check: ₱80,000/₱100,000 and ₱120,000/₱200,000: mean 0.70.

Use: The aggregate ratio is 200,000/300,000 = 0.6667; do not confuse it with the mean. No quality threshold is inferred. [Lessons 31]

Appendix C • Selected source register

The S-identifiers follow the curriculum register. This selection is not a complete bibliography. URLs are verification routes; retained lesson source notes govern the specific teaching propositions.

S1 PRC July 2026 appraiser examination program

Historical examination program • Coverage and 50/50 weights belong to the July 2026 program. Confirm the actual examination program and schedule for your sitting; no 2027 continuity is asserted.

https://www.prc.gov.ph/sites/default/files/REA%20exam%20program%202026.pdf

S2 RA 9646

Statute • Lessons 1, 10, 11, 36 • Real Estate Service Act. Section 15 gives the examination rating requirements. Check implementing rules and later applicable professional issuances.

https://lawphil.net/statutes/repacts/ra2009/ra_9646_2009.html

S3 PRC Code of Ethics and Responsibilities

Professional code • Lesson 10 • Read the actual ethics provisions for conflicts, independence and responsibilities. A study checklist does not replace the operative code.

https://www.prc.gov.ph/sites/default/files/RealEstateServiceCOE.pdf

S4 RESA IRR

Implementing rules • Lesson 11 • Use with RA 9646 and later relevant PRC/Board issuances. Keep registration, licensing and other requirements distinct.

https://www.prc.gov.ph/sites/default/files/Board%20of%20Real%20Estate%20Service%20-%20Implementing%20Rules%20and%20Regulation_0.pdf

S5 Philippine Valuation Standards, third edition

Valuation standards • Lessons 8, 9, 20, 34 • PVS third edition. Identify the applicable standard and adoption or transition conditions for the assignment; cite clauses in the relevant chapter or report.

https://blgf.gov.ph/wp-content/uploads/2026/06/PHILIPPINE-VALUATION-STANDARDS-3rd-Edition-ONLINE-EDITION-COMPLIMENTARY-COPY.pdf

S6 IVSC 2025 edition explanation and standards architecture

Standards publication notice • Lesson 8 • IVSC notice of the edition effective 31 January 2025. The notice is an edition-status route, not the complete standards text.

https://ivsc.org/new-edition-of-the-international-valuation-standards-ivs-published/

Appendix C • Selected source register (continued)

The S-identifiers follow the curriculum register. This selection is not a complete bibliography. URLs are verification routes; retained lesson source notes govern the specific teaching propositions.

S7 RA 7160

Statute • Lessons 18, 32 • Local Government Code. For tax and remedies, read the relevant provisions together with later applicable amendments and adopted local instruments.

https://lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html

S8 RA 12001 • RPVARA

Statute • Lessons 20–22, 32, 35 • RPVARA. Read the law, implementing rules and local effectivity records together; distinguish the valuation schedule from the final tax liability.

https://lawphil.net/statutes/repacts/ra2024/ra_12001_2024.html

S9 PD 957

Decree • Lesson 14 • Subdivision and condominium buyer-protection framework. Verify project-specific records and later relevant rules rather than infer approval from advertising.

https://lawphil.net/statutes/presdecs/pd1976/pd_957_1976.html

S10 BP 220

Statute • Lesson 14 • Economic and socialized housing standards framework. Check applicable technical implementing standards and project category.

https://lawphil.net/statutes/bataspam/bp1982/bp_220_1982.html

S11 RA 7279

Statute • Lesson 14 • Urban Development and Housing Act. Read with amendments and applicable housing implementation records.

https://lawphil.net/statutes/repacts/ra1992/ra_7279_1992.html

S12 PD 1529

Decree • Lessons 1, 12, 23 • Property Registration Decree. Obtain current certified or authoritative property records; a general legal text does not establish a particular title status.

https://lawphil.net/statutes/presdecs/pd1978/pd_1529_1978.html

Appendix C • Selected source register (continued)

The S-identifiers follow the curriculum register. This selection is not a complete bibliography. URLs are verification routes; retained lesson source notes govern the specific teaching propositions.

S13 Family Code

Executive order • Lesson 13 • Family Code. Apply the relevant property regime, dates and documented circumstances; use applicable amendments and judicial authority where required.

https://lawphil.net/executive/execord/eo1987/eo_209_1987.html

S14 RA 4726

Statute • Lesson 15 • Condominium Act. Read the unit, common-property and corporate interests with the actual master deed and governing documents.

https://lawphil.net/statutes/repacts/ra1966/ra_4726_1966.html

S15 RA 9856

Statute • Lesson 15 • REIT Act. A property valuation, corporate security and investment product require distinct analyses; check SEC rules and current disclosures.

https://lawphil.net/statutes/repacts/ra2009/ra_9856_2009.html

S16 RA 6657 • Comprehensive Agrarian Reform Law

Statute • Lesson 16 • Comprehensive Agrarian Reform Law. Read with RA 9700 and current DAR rules. Land classification, agrarian coverage and conversion are separate enquiries.

https://lawphil.net/statutes/repacts/ra1988/ra_6657_1988.html

S17 RA 10912

Statute • Lesson 11 • Continuing Professional Development Act. Verify current PRC implementation and any applicable undertaking or transition arrangements.

https://lawphil.net/statutes/repacts/ra2016/ra_10912_2016.html

S18 PRC admission requirements

Agency service route • Lesson 11 • PRC requirements page. Verify the profession-specific and current requirements for the actual application; a service page does not create statutory eligibility.

https://www.prc.gov.ph/list-of-requirements

Appendix C • Selected source register (continued)

The S-identifiers follow the curriculum register. This selection is not a complete bibliography. URLs are verification routes; retained lesson source notes govern the specific teaching propositions.

S19 RA 10884

Statute • Lesson 14 • Amendment concerning balanced housing. Read with the amended provisions and current applicable project implementation rules.

https://lawphil.net/statutes/repacts/ra2016/ra_10884_2016.html

S20 RA 11201

Statute • Lessons 14, 17 • DHSUD institutional framework. Confirm the agency responsible for the particular approval or enforcement action.

https://lawphil.net/statutes/repacts/ra2019/ra_11201_2019.html

S21 PD 1096 Senate record

Decree / legislative library • Lesson 17 • National Building Code route. Verify the actual applicable text, implementing rules and local building-control evidence; the listing alone is not a permit.

https://issuances-library.senate.gov.ph/legislative%2Bissuances/Presidential%20Decree%20No.%201096%2C%20s.%201977

S22 RA 8424 • Original 1997 NIRC

Base tax statute • Lesson 19 • Original 1997 NIRC text is not a consolidated current tax code. Read TRAIN and later applicable amendments and BIR issuances for the relevant transaction date.

https://lawphil.net/statutes/repacts/ra1997/ra_8424_1997.html

S26 PD 1216

Decree • Lesson 14 • Open-space provisions related to subdivision development. Check applicable standards and the approved plan rather than infer saleable area from gross area.

https://lawphil.net/statutes/presdecs/pd1977/pd_1216_1977.html

S27 RA 10752

Statute • Lesson 30 • Right-of-Way Act. Identify the acquisition procedure, interest, valuation premise and implementing requirements for the actual case.

https://lawphil.net/statutes/repacts/ra2016/ra_10752_2016.html

Appendix C ● Agency and data routes

Use these routes to locate an authoritative record. Record what you actually retrieved, not only the website name. A market statistic, application portal or explanatory notice does not establish a subject property's legal or market facts.

BSP Residential Property Price Index

Lessons 4, 7, 35. Quarterly residential market context. Read the technical notes, data coverage and reference period before applying a movement to a comparable.

https://www.bsp.gov.ph/Pages/MediaAndResearch/PublicationsAndReports/RPPI.aspx

NAMRIA eMapa

Lessons 4, 33. Spatial information route. Record layer, datum, scale, date and positional limits; confirm legal boundaries with the competent survey records.

https://isportal.namria.gov.ph/eMapa/

BIR RPVARA IRR circulation digest

Lessons 20–22, 35. Circulation notice dated 7 April 2025; use the implementing text itself for the rule and its conditions.

https://bir-cdn.bir.gov.ph/BIR/pdf/RMC%20No.%2030-2025%20Digest.pdf

IVSC 2026 exposure-draft consultation

Lessons 8, 35. Proposal route. A proposed future edition is not the operative standard merely because a consultation exists.

https://ivsc.org/consultations/ivs-exposure-draft-for-consultation-2026/

Minimum source record

Field	Record
Document and issuer	Exact title, number, edition and issuing authority
Dates	Publication, effectivity, reference period and actual retrieval date
Pinpoint	Section, paragraph, clause, table or relevant page
Status	Operative / historical / proposed / explanatory / unresolved
Application	Specific proposition supported; jurisdiction and conditions
Retention	Stable copy or identifier, access limits and verification action

Prepared 13 October 2026. This appendix consolidates routes already used by the course; it does not change each lesson's research cutoff or certify all destinations as continuously available.

Appendix D ● Assignment intake

Reusable form 1 • Lessons 1, 8–11, 23, 34. Complete before accepting or defining an assignment. Add pages as needed.

File ID / version _____ Prepared by _____

Client / intended users _____

Intended use / reporting requirement _____

Property identifier / location _____

Interest to be valued and supporting instrument _____

Valuation date _____ Inspection date _____ Report date _____

Basis of value / governing source _____

Scope item	Decision / evidence / unresolved action
Asset and interest boundaries	_____ _____
Inspection access and limits	_____ _____
Information and verification plan	_____ _____
Methods and competency	_____ _____
Assumptions / special assumptions	_____ _____
Conflict / independence enquiries	_____ _____

Acceptance and follow-up

Material missing fact and consequence _____
Responsible person / record requested _____
Accept / revise scope / defer / decline: _____ Reason _____
Review date _____ Documented agreement reference _____

Appendix D • Evidence and calculation log

Reusable form 2 • Lessons 7, 22–24, 26–28, 33. Keep the original record and a traceable calculation version.

File ID _____ Valuation date _____ Calculation version _____

Evidence item	Source / date / status	Reliability / action
1 _____	_____ _____	_____ _____
2 _____	_____ _____	_____ _____
3 _____	_____ _____	_____ _____
4 _____	_____ _____	_____ _____
5 _____	_____ _____	_____ _____

Comparable or input screening

Interest and transaction terms _____
Area / unit / period consistency _____
Verification performed and exclusions _____
Adjustment basis and supporting record _____

Calculation reconstruction

Model / formula and why suitable _____

Input values, units and timing _____

Rate convention and cash-flow definition _____

Working / unrounded result _____

Rounded result and rounding instruction _____

Independent check / changed-input test _____

Remaining uncertainty and effect on conclusion _____

Reviewer _____ Date _____ Evidence or calculation repair _____

Appendix D ● Reconciliation and report review

Reusable form 3 • Lessons 28, 34, 36. Evaluate the reasoning behind each indication before signing off a teaching case.

File ID _____ Report version _____ Reviewer _____

Indication	Amount / premise	Evidence quality / role
Sales comparison	_____ _____	_____ _____
Cost	_____ _____	_____ _____
Income / DCF	_____ _____	_____ _____
Other relevant analysis	_____ _____	_____ _____

Reconciliation record

Most persuasive evidence and reason _____
Material inconsistency and resolution _____
Conclusion / basis / interest / date _____
Sensitivity result and what it does or does not imply _____

Review question	Yes / no / action
Property and interest identifiable?	_____
Basis, date, users and use consistent?	_____
Sources and assumptions traceable?	_____
Income, costs, units and timing consistent?	_____
Legal permissions supported or conditional?	_____
Arithmetic reproducible without hidden inputs?	_____
Material uncertainty and limits communicated?	_____
Conclusion consistent with evidence and scope?	_____

Unresolved material issue / release decision _____
Repair owner _____ Due date _____ Recheck _____

Appendix D ● Legal and tax fact sheet

Reusable form 4 • Lessons 12–22, 32, 35. Record a scenario's conditions before calculating or selecting a legal answer.

File / question version _____ Relevant date _____ Jurisdiction _____

Question	Documented response
Interest / title / tenure evidence	_____ _____
Land use and required permissions	_____ _____
Family / contractual / corporate context	_____ _____
Governing instrument and pinpoint	_____ _____
Applicable effectivity / transition	_____ _____
Local schedule / classification / level	_____ _____
Rate, exemption and liability conditions	_____ _____

Tax computation and remedy enquiry

Value base _____ Assessment level _____ Assessed value _____
Basic component _____ SEF component _____ Other charges _____
Relief baseline / eligibility / component treatment _____
Event triggering a remedy period and documentary evidence _____
Proper route / authority / deadline source _____

Separate market value, assessed value and liability. Check an actual procedural deadline from its governing rule and trigger; this blank form supplies no deadline or eligibility finding.

Appendix E • Final competency review

Use with Lesson 36. Reading completion and demonstrated competence are separate records. These tasks are course review tools, not an official examination blueprint.

Lesson group	Demonstration before final review
1–7 • Foundations	Identify the right and value concept; test HBU; interpret market evidence; reconstruct finance and statistics with units and timing.
8–11 • Standards and practice	State basis, scope, users and use; recognise a conflict; identify the applicable standard and professional requirement.
12–19 • Legal and tax context	Build a title and permissions enquiry; distinguish regimes and interests; identify the tax base and governing date before arithmetic.
20–22 • Valuation reform	Explain institutional roles, SMV stages and transition conditions; preserve provenance and distinguish value reform from liability.
23–28 • Research and approaches	Screen evidence; complete sales, cost and income models; build a timed DCF; reconcile indications and explain uncertainty.
29–34 • Applied work	Handle machinery and specialized premises; interpret model ratios; distinguish assessment remedies; check coordinates; review a report.
35–36 • Integration	Classify source status and dates; solve integrated cases; explain a changed-input result and repair errors on a fresh attempt.

Self-assessment record

For each group, mark demonstrated / needs repair / not attempted. Cite a completed case or explanation, then name the next action. A tick without evidence is not a competency demonstration.

Strongest evidence _____
Weakest unresolved competency _____
Targeted lesson / task _____
Fresh retest date and outcome _____

Appendix E ● Error repair and readiness

Use a separate row for each recurring cause. Preserve the attempt version and your original working before consulting the explanation.

Error class	Diagnostic question	Repair
Premise / interest	Did I value the wrong right, date or purpose?	Restate the assignment in one sentence.
Legal / source	Did I treat a proposal, announcement or missing permission as operative evidence?	Retrieve the relevant instrument and conditions.
Evidence	Did I use an unverified or inconsistent comparable or input?	Verify, exclude or qualify with a recorded reason.
Model / timing	Did I mix periods, gross and net flows, or rates?	Draw a dated cash-flow schedule and rebuild.
Arithmetic / units	Did I use a wrong base, unit or rounding step?	Recalculate with full precision and an inverse check.
Reporting	Can another reader trace the conclusion and limits?	Repair the explanation and review the result.

Attempt record

Attempt ID / version _____ Date _____ Time used _____
Score / denominator _____ Worked-task score _____
Critical premise or source error _____
Cause _____ Repair task _____ Fresh retest _____

Course targets and official criteria

Lesson 36 uses internal readiness targets: at least 80% overall, 70% in each practice domain, 80% on worked tasks and no critical errors. These are teaching targets. Small practice sets offer only coarse evidence and do not predict a pass.

RA 9646 section 15 states a general average of at least 75%, with no subject rating below 50%. Consult the applicable PRC examination program for subject definitions and instructions. The 2026 program’s 50/50 organization is historical context, not confirmation of the 2027 program. [Register S1–S2]

Final action: revisit the weakest explanation, complete a changed-facts case and record why the result changes. Do not rely only on repeating memorized answer letters.

Appendix F ● Updates and corrections record

Keep historical correctness separate from an original error. Lesson 35 retains its 12 October 2026 research cutoff; this back matter was prepared 13 October 2026 and does not re-audit all earlier chapters.

Record type	Use
Correction	An error in the original text, calculation, citation or answer under its own stated facts and date.
Update	New evidence, a new rule or changed status after the retained research date.
Clarification	Additional explanation that preserves the original conclusion and makes its conditions clearer.
Unresolved enquiry	A material question awaiting authoritative evidence; do not silently assign it a final status.

Revision entry

Entry ID _____ Type _____ Entered on _____

Lesson / appendix / page / item ID _____

Original edition and content version _____

Original statement and relevant date _____

Issue or new evidence _____

Authoritative source / pinpoint / publication and effectivity _____

Corrected or updated wording / result _____

Effect on worked cases and answer keys _____

Reviewer and verification date _____

Replacement version and learner action _____

Before incorporating a change

Confirm the source’s status, scope and dates. Recalculate every dependent example and check affected answer explanations. Retain the old version where needed to interpret earlier attempts. For final assembly, check contents, cross-references and index page numbers against the released volume.

This is a printable record, not a live update service or a promise of scheduled revisions.

Appendix G • Alphabetical topic index

Numbers refer to lessons 1–36. This topical index identifies primary study routes; it is not a concordance of every occurrence. Final book page references await assembly.

Topic	Lessons
Ad valorem	18, 32
Adjustment	7, 24
Agrarian conversion	16
Annuity	6
Appraisal	1, 9, 34
Appraisal review	34
Assessed value	18, 32
Assessment level	18, 32
Assessment ratio	31
Assumption	9, 28, 34
Basis of value	8, 9
Building controls	17
Buyer protection	14
Capitalization rate	26
Cash flow	5, 6, 27
Coefficient of variation	7
Comparable	7, 23, 24
Condominium interest	15
Contracts and succession	13
Corrections and dated updates	35
Cost approach	25
Data provenance	22, 23, 33
Debt service	5, 26
Depreciation in valuation	25, 29

Appendix G ● Alphabetical topic index (continued)

Numbers refer to lessons 1–36. This topical index identifies primary study routes; it is not a concordance of every occurrence. Final book page references await assembly.

Topic	Lessons
Development residual	27
Discount rate	6, 27
Discounted cash flow	27
Easement	1, 12, 13
Economic life	25, 29
Effective age	25
Effective gross income	26
Encumbrance	1, 12
Evidence hierarchy	23, 34
Examination readiness	36
External obsolescence	25, 29
Fair market value for assessment	18, 21, 32
Family property regimes	13
Functional obsolescence	25, 29
Geographic information system	4, 33
Gross rent multiplier	26
Highest and best use	3, 17
Infrastructure valuation	29
Inspection	23
Intended use	9, 34
Intended user	9, 34
Internal rate of return	5, 6, 27
Land classification	16
Land registration	12

Appendix G ● Alphabetical topic index (continued)

Numbers refer to lessons 1–36. This topical index identifies primary study routes; it is not a concordance of every occurrence. Final book page references await assembly.

Topic	Lessons
Leased fee interest	1, 26
Leasehold interest	1, 26
Liquidity	2, 5
Loan-to-value ratio	5
Local tax remedies	32
Machinery and equipment	29
Market rent	26
Market value	2, 8, 9
Mass appraisal	21, 31
National transaction taxes	19
Net operating income	26
Net present value	5, 6, 27
Physical deterioration	25, 29
Planning and site constraints	17
Present value	6
Professional ethics	10
Professional licensure	11
Reconciliation	28, 34
REIT structures	15
Replacement cost	25, 29
Reproduction cost	25
Residual interest	1, 27
Reversion	26, 27
RPVARA institutions	20

Appendix G ● Alphabetical topic index (continued)

Numbers refer to lessons 1–36. This topical index identifies primary study routes; it is not a concordance of every occurrence. Final book page references await assembly.

Topic	Lessons
RPVARA SMV preparation and review	21
RPVARA transition and data governance	22
Saleable area	14, 17, 27
Sales comparison approach	24
Schedule of Market Values	20, 21, 32
Scope of work	9
Sensitivity analysis	27, 28
Special assumption	8, 9
Specialized property	29, 30
Statistics and comparable evidence	7
Survey plotting	33
Terminal value	27
Time value of money	6
Title evidence	12, 23
Uncertainty	28, 34
Unit rate	6, 24
Usufruct	1, 13, 30
Vacancy allowance	26
Valuation date	9, 34
Weighted mean	7, 24
Workfile	23, 34
Zoning	3, 17

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