

BRIGHT SCHOLARS

AP+

MICROECONOMICS

WORKBOOK

2027 Exam Preparation Edition

Think at the Margin. Analyze Markets. Reason Precisely.

Graphing Practice • Market Analysis • FRQ Strategy • Full-Length Practice
Exam & 8-Week Exam Prep

THIS BOOK BELONGS TO

Student Name _____

School / Class _____

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Diagnostic Test

Take this diagnostic before beginning your review. Do not use notes or the internet. This is a baseline: your score is information, not a grade.

Section	What to Do	Count	Suggested Time
Part 1	Multiple-choice questions	30	25 min
Part 2	Short FRQ prompt	1	10 min
Part 3	Self-reflection	1 page	5 min

★ EXAM EDGE

Do not look at the key until you finish all three parts.

Use the diagnostic graph spaces to test whether you can construct the major models from memory.

Part 1: Multiple Choice, Questions 1-10

- 1 A country can produce 100 units of wheat or 50 units of cloth. The opportunity cost of one unit of cloth is
 - (A) 0.5 units of wheat
 - (B) 2 units of wheat
 - (C) 50 units of wheat
 - (D) 100 units of wheat

- 2 A point inside the production possibilities curve indicates
 - (A) economic growth has occurred
 - (B) a combination that is currently unattainable
 - (C) maximum productive efficiency
 - (D) resources are being underutilized or misallocated

- 3 Country A: 10 computers or 20 tons of rice/day. Country B: 8 computers or 32 tons of rice/day. Country B has the comparative advantage in
 - (A) neither good: Country A produces more of both
 - (B) computers: it has higher technology
 - (C) rice: its opportunity cost of rice is lower
 - (D) both goods: it is larger

- 4 A rational decision maker should take an additional action when
 - (A) marginal benefit exceeds marginal cost
 - (B) total cost is at its minimum
 - (C) total benefit exceeds total cost of all prior actions
 - (D) average benefit exceeds average cost

UNIT

1

Basic Economic Concepts

Official AP Exam Weighting: 12%-15%

i KNOW IT

Big Idea: Microeconomics studies how individuals, firms, and markets make decisions under scarcity. Every choice involves a trade-off. Every trade-off has an opportunity cost.

Rational decision makers think at the margin, comparing marginal benefit with marginal cost.

✓ STUDENTS WILL MASTER

- Opportunity cost: the value of the next best alternative foregone
- Marginal analysis: the MB vs. MC decision rule
- Production possibilities curves: efficient points, inefficient points, unattainable points, and shifts
- Absolute advantage vs. comparative advantage
- Specialization based on comparative advantage and gains from trade

! COMMON AP TRAPS

- Confusing absolute advantage (more output) with comparative advantage (lower opportunity cost)
- Forgetting opportunity cost is not always money: it can be another good, time, or leisure
- Saying a point inside the PPC is impossible: it is achievable but inefficient
- Not computing opportunity cost correctly: $OC \text{ of Good A} = (\max B) / (\max A)$

I Quick Review

Scarcity, Choice, and Opportunity Cost

Scarcity is the fundamental economic problem: human wants are unlimited but productive resources (land, labor, capital, and entrepreneurship) are finite. Because of scarcity, every economic choice requires giving up something. That something is the opportunity cost.

i KNOW IT

Opportunity cost = the value of the next best alternative given up when a decision is made. It is the true cost of every choice, not just the money paid.

Example: A student gives up \$20/hour of work to study for 2 hours → OC of studying = \$40 in foregone wages.

Resource Allocation and Economic Systems

Scarcity forces societies to decide what to produce, how to produce, and for whom to produce. Market systems rely heavily on prices and voluntary exchange; command systems rely more heavily on centralized allocation; most real economies are mixed.

Marginal Analysis and Rational Decision-Making

Rational decision makers compare the marginal benefit (MB) and marginal cost (MC) of each additional unit:

If...	Decision	Economic Reasoning
MB > MC	Take the next action	Marginal benefit exceeds marginal cost.
MB = MC	Optimal stopping point	No additional net gain at the margin.
MB < MC	Do not take the next action	Marginal cost exceeds marginal benefit.

Production Possibilities Curve (PPC)

The PPC shows the maximum combinations of two goods an economy can produce with available resources and technology, assuming full and efficient resource use.

Point Location	Meaning	Interpretation
On PPC	Efficient	Resources fully employed at current capacity.
Inside PPC	Inefficient	Unemployment or resource misallocation.
Outside PPC	Currently unattainable	Requires growth in resources or technology to reach.

SLOPE of the PPC = opportunity cost of producing one more unit of the horizontal-axis good, measured in units of the vertical-axis good sacrificed.

BOWED SHAPE (concave to origin) = increasing opportunity costs. As you specialize more in one good, each additional unit requires sacrificing increasing amounts of the other good, because resources are not equally suited to producing all goods.

Absolute vs. Comparative Advantage

Concept	Definition	Key Question
Absolute advantage	Can produce more output with the same resources.	Who produces more?
Comparative advantage	Has the lower opportunity cost.	Who gives up less of the other good?

OC of Good A = (Maximum output of Good B) ÷ (Maximum output of Good A)

The country with the lower opportunity cost has comparative advantage in that good. Specialization + trade lets both countries consume outside their individual PPCs.

Consumer Choice and Marginal Utility

✓ MARGIN CHECK

Diminishing marginal utility: as a consumer obtains more units of a good, the marginal utility from additional units generally falls.

Utility-maximizing allocation rule: compare marginal utility per dollar. Shift spending toward the good with the higher MU/P until the ratios equalize, subject to the budget constraint.

Graph It: Production Possibilities Curve

📌 GRAPH IT

Draw a bowed-out PPC with Wheat (tons) on the horizontal axis and Cloth (yards) on the vertical axis.

Plot and label: E₁ = efficient point on the curve; U = inefficient point inside; X = unattainable point outside.

Draw a second outer curve PPC₂ to show economic growth. Label one point E₂ on the new curve.

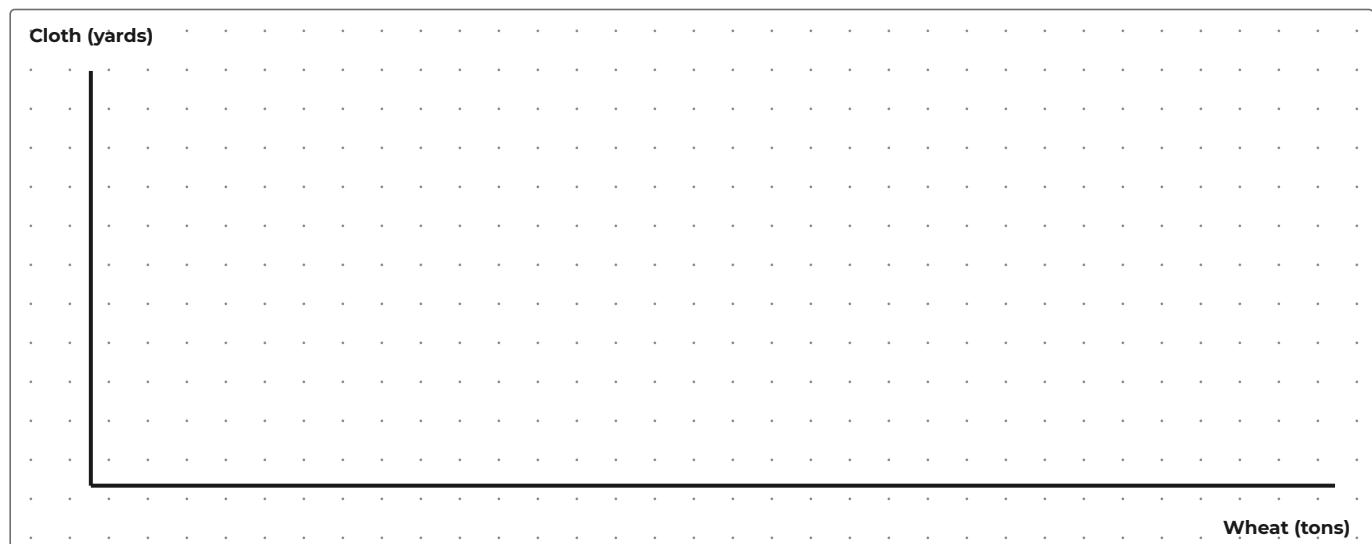
Questions

What does Point U represent in economic terms? Is it impossible? Explain.

What does Point X represent? Can the economy ever reach it? How?

What causes the PPC to shift outward from PPC_1 to PPC_2 ? Give two specific examples.

How does the slope of the PPC demonstrate opportunity cost? Use specific language.



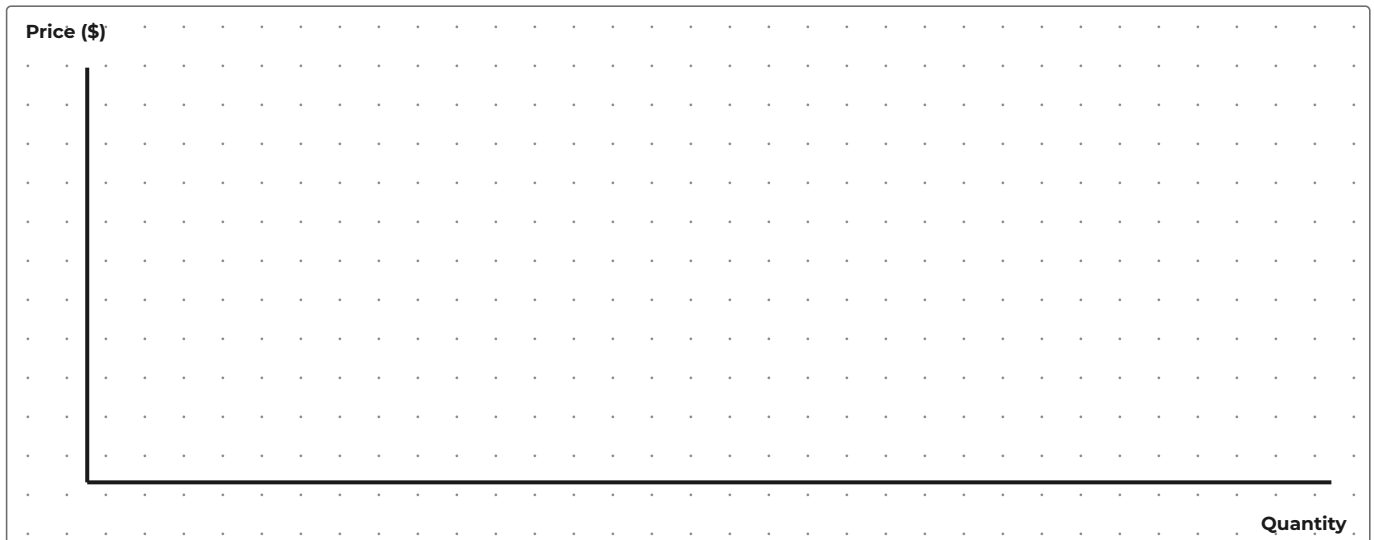
Calculate It: Comparative Advantage

Country Agria and Country Bovia each produce wheat and electronics. Use the data below to analyze their comparative advantage.

CALCULATE IT

Country	Agria	Bovia
Max Wheat Output (tons/day)	120	80
Max Electronics Output (units/day)	60	80

OC of Good A = (Max output of Good B) ÷ (Max output of Good A)



Shift It: Supply Scenarios

Scenario	S Shifts Left or Right?	Equilibrium Price ↑ or ↓?	Equilibrium Quantity ↑ or ↓?
Input (resource) costs increase significantly			
A new technology reduces production costs			
A per-unit tax is imposed on sellers			
A government subsidy is given to producers			
The number of sellers in the market increases			
Sellers expect prices to be much higher next month			
A natural disaster destroys production facilities			

Graph Practice: Per-Unit Tax on Sellers

Draw the effect of a per-unit tax on sellers.

Label: original S_1 , new S_2 (shifts left by the tax amount, with arrow), P_1 , Q_1 , P_2 , Q_2 .

Also label: price paid by buyers (P_b), higher than P_1 ; price received by sellers ($P_s = P_b - \text{tax}$).

Explain why a tax on sellers shifts the supply curve leftward rather than rightward:

Answer Key

Use the explanations to diagnose reasoning, graph, calculation, and vocabulary errors.

This answer key covers every multiple-choice question in the workbook. For each question: correct answer letter, unit, skill tested, full explanation, and common misconception. FRQ answer guides follow the MCQ key.

★ EXAM EDGE

Read every explanation, not just the correct answer letter. For every question you missed: identify whether the error was vocabulary, graph, calculation, or reasoning. Record every missed question in the Error Log

Do not treat this key as a checklist: understand why each answer is correct.

UNIT 1: BASIC ECONOMIC CONCEPTS

Q1. A

Unit 1 • Opportunity Cost

The implicit opportunity cost is the \$28,000 salary the farmer gives up by farming fulltime instead of working in banking. Explicit input costs, such as seeds, fertilizer, and equipment, are not implicit costs.

Misconception: The question asks for the implicit opportunity cost only the foregone salary qualifies.

Q2. D

Unit 1 • Comparative Advantage

Country X: OC of 1 widget = $30/60 = 0.5$ gadget. Country Y: OC of 1 widget = $50/50 = 1$ gadget. Country X has comparative advantage in widgets; Country Y has comparative advantage in gadgets.

Misconception: Country Y has comparative advantage in gadgets, not widgets. Country X's OC of widgets = $30/60 = 0.5$ gadgets (lower than Y's 1 gadget).

Q3. C

Unit 1 • PPC Shift: Outward

Education and training improve human capital → productive capacity increases → PPC shifts outward over time.

Misconception: The PPC shift is gradual (over time) because building human capital takes time. It cannot shift the PPC outward immediately.

Q4. B

Unit 1 • Resource Allocation and Economic Systems

A market economy relies heavily on prices and voluntary exchange to coordinate resource allocation. Most real economies are mixed and combine market allocation with government intervention.

Misconception: A market economy is not defined by the absence of government; the defining mechanism is the major role of prices and decentralized exchange.

Q5. A

Unit 1 • Marginal Analysis

Study if MB of studying > MC (foregone wages). The comparison is at the margin: one more hour.

Misconception: Comparing past total study hours to past work hours is not marginal analysis. Only the next hour matters.

Q6. B

Unit 1 • Comparative Advantage

Even if Alpha has absolute advantage in both, Beta can still specialize in the good where its OC is relatively lower. Both gain from trade.

Misconception: Absolute advantage in everything does not eliminate the basis for trade: comparative advantage always exists (unless OC ratios are identical).

Q7. D

Unit 1 • PPC Shape: Increasing OC

A bowed-out (concave) PPC reflects increasing opportunity costs because resources are not equally suited to all production tasks.

Misconception: A straight-line PPC = constant OC. Only a bowed shape shows increasing OC as specialization increases.

Q8. C

Unit 1 • PPC Shift: Causes

Consumer demand does not shift the PPC: demand is a market concept. PPC shifts require supply-side factors: more resources or better technology.

Misconception: Technology improvements, more resources, and more labor do shift the PPC. Consumer demand does not.

Q9. B

Unit 1 • Consumer Choice and Marginal Utility

Good A: $MU/P = 20/4 = 5$ utils per dollar. Good B: $MU/P = 14/2 = 7$ utils per dollar. Good B gives the greater marginal utility per dollar.

Q10. C

Unit 1 • Gains from Trade

Specialization allows each party to produce more of their comparative advantage good than they could both goods alone, then trade, consuming beyond their individual PPC.

Misconception: Absolute advantage is not the basis; equal opportunity costs would eliminate gains from trade.

Q11. B

Unit 1 • Reading a PPC

From C (20 robots, 70 bread) to D (30 robots, 40 bread), the economy gives up 30 bread for 10 robots: 3 bread per robot.

Q12. A

Unit 1 • Points on and off the PPC

F lies inside the curve (idle or misallocated resources); G lies outside it, beyond what current resources and technology can produce.

Q13. D

Unit 1 • Comparative Advantage from Graphs

Opportunity cost of 1 ton of corn: Alto gives up $30 \div 60 = 0.5$ bolt of cloth; Bajo gives up $40 \div 40 = 1$ bolt. Alto has the lower cost for corn, so Bajo has the lower cost for cloth.

Q14. A

Unit 1 • Terms of Trade