AP Microeconomics Practice

Use this key to check answers and read the explanations.

1. Two points on a straight segment of an art room's production possibilities frontier are 10 posters and 12 badges, and 14 posters and 4 badges. What is the opportunity cost of each additional poster along that segment?

A. 2 badges
B. 4 badges
C. 8 badges
D. ½ badge

Correct answer: A. 2 badges
Moving between the points gains 4 posters and gives up 8 badges. The cost per additional poster is 8 ÷ 4 = 2 badges.

2. A fictional market has many small sellers. Each offers a slightly different style of reusable lunch bag, and new sellers can enter easily. Which market structure best fits?

A. Oligopoly
B. Perfect competition
C. Monopolistic competition
D. Monopoly

Correct answer: C. Monopolistic competition
Monopolistic competition combines many sellers and relatively easy entry with products that buyers see as different.

3. Fern gives up 2 bookmarks to make a notebook. Moss gives up 5 bookmarks to make one. If Fern sells a notebook to Moss, which price gives each person a strict gain over producing independently?

A. 1 bookmark
B. 3 bookmarks
C. 2 bookmarks
D. 6 bookmarks

Correct answer: B. 3 bookmarks
Fern gains when the price is above 2 bookmarks. Moss gains when it is below 5. A price of 3 falls between their opportunity costs.

4. In a competitive market with downward-sloping demand and upward-sloping supply, both quantity demanded and quantity supplied increase at every price. What happens at the new equilibrium?

A. Quantity stays the same, and price must fall.
B. Quantity rises, and price must rise.
C. Quantity falls, and the price change depends on the size of the shifts.
D. Quantity rises, and the price change depends on the size of the shifts.

Correct answer: D. Quantity rises, and the price change depends on the size of the shifts.
Either shift alone would raise equilibrium quantity. Greater demand pushes price up, while greater supply pushes price down. The relative shifts determine the final price change.

5. In a fictional market, quantity demanded is $46 - 2P$ and quantity supplied is $6 + 3P$, where P is price in dollars. What is the equilibrium?

A. Price $8 and quantity 38
B. Price $8 and quantity 30
C. Price $10 and quantity 26
D. Price $9 and quantity 33

Correct answer: B. Price $8 and quantity 30
Equating demand and supply gives $46 - 2P = 6 + 3P$, so $40 = 5P$ and $P = 8$. Substituting gives a quantity of 30.

6. As price rises from $10 to $14, quantity demanded falls from 90 to 70 on the same demand curve. What is the absolute value of price elasticity using the midpoint method?

A. 0.75
B. 1.33
C. 0.56
D. 1.00

Correct answer: A. 0.75
The quantity change has magnitude $20 \div 80$, and the price change is $4 \div 12$. Dividing those midpoint percentage changes gives 0.75.

7. Around a competitive market's equilibrium, demand is less price-elastic than supply in absolute terms. A small per-unit tax is collected from sellers. Which group bears the larger share of the tax as prices adjust?

A. Neither group bears a share
B. Sellers
C. Both groups bear equal shares
D. Buyers

Correct answer: D. Buyers
Buyers respond less to price changes. They bear a larger share through a rise in the price they pay, even though sellers send the tax payment.

8. The price of printer paper rises by 20%. The quantity of binders demanded falls by 10%, with other conditions unchanged. What cross-price elasticity and relationship do these figures imply?

A. −2.0, complements
B. +0.5, substitutes
C. −0.5, complements
D. +2.0, substitutes

Correct answer: C. −0.5, complements
Divide the binders' percentage quantity change by the paper's percentage price change. That gives −10% ÷ 20% = −0.5. The negative sign indicates complements.

9. A price-taking pottery shop receives $11 per bowl. The marginal costs of its first four bowls are $4, $6, $9, and $13. It can make zero to four whole bowls and faces the same fixed cost at every output. Which quantity maximizes profit?

A. 3 bowls
B. 2 bowls
C. 4 bowls
D. 0 bowls

Correct answer: A. 3 bowls
Each of the first three bowls brings in more revenue than it costs to make. The fourth costs $13 and brings in $11, reducing profit.

10. A price-taking firm faces a price of $4. Its minimum average variable cost is $5, and it must pay its fixed costs during the current period at any output. Which decision minimizes the firm's short-run loss?

A. Produce the greatest feasible output
B. Produce at the minimum average variable cost
C. Produce at the minimum average total cost
D. Produce zero units temporarily

Correct answer: D. Produce zero units temporarily
At every positive output, the $4 price falls below average variable cost, so revenue cannot cover variable costs. Producing zero leaves the firm with its unavoidable fixed costs.

11. A straight-line demand curve starts at a price of $20 when quantity is zero. At equilibrium, the price is $8 and the quantity is 12. What is consumer surplus?

A. $96
B. $48
C. $72
D. $144

Correct answer: C. $72
The region below demand and above the market price is a triangle. Its base is 12 units and its height is $20 − $8 = $12. The area is ½ × 12 × $12 = $72.

12. A single-price monopolist faces prices of $20, $17, $14, and $11 when it sells 1, 2, 3, and 4 units, respectively. It can sell at most 4 whole units. Each unit adds $6 in cost and fixed cost is zero. Which price and quantity maximize profit?

A. $17 and 2 units
B. $14 and 3 units
C. $11 and 4 units
D. $20 and 1 unit

Correct answer: B. $14 and 3 units
Revenue minus total cost gives profits of $14, $22, $24, and $20 at quantities 1 through 4. The third unit adds $8 in revenue against $6 in cost. The fourth adds only $2, so the maximum is at 3 units and a price of $14.

13. Fictional firms A and B each choose High or Low. If both choose High, each earns 7 payoff points. If only one chooses Low, it earns 9 and the other earns 2. If both choose Low, each earns 4. Which outcome is a Nash equilibrium?

A. A chooses Low and B chooses High
B. Both choose High
C. A chooses High and B chooses Low
D. Both choose Low

Correct answer: D. Both choose Low
Low gives 9 instead of 7 against High, and 4 instead of 2 against Low. Both firms choose Low, and each would lose payoff points by switching alone.

14. In a fictional market for tutoring sessions, marginal private benefit is $18 - Q$ and marginal private cost is $6 + Q$. Marginal external benefit is 4 per session, and there is no external cost. What are the private-market quantity and the socially efficient quantity?

A. Private 6, efficient 8
B. Private 6, efficient 4
C. Private 8, efficient 6
D. Private 8, efficient 10

Correct answer: A. Private 6, efficient 8
Private equilibrium sets $18 - Q = 6 + Q$, giving 6. Adding the external benefit raises marginal social benefit to $22 - Q$. Setting that equal to $6 + Q$ gives 8.

15. In a fictional competitive market with a continuous quantity Q, demand gives marginal benefit 30 − Q and marginal private cost is 6 + Q. Each unit imposes a $4 marginal external cost, and there are no external benefits. What is the deadweight loss from the unregulated outcome?

A. $16
B. $8
C. $4
D. $48

Correct answer: C. $4

The private market produces 12. Marginal social cost is 10 + Q, so the efficient quantity is 10. At quantity 12, social cost exceeds marginal benefit by $4. The loss is a triangle with area ½ × 2 × $4 = $4.