## DO NOT WRITE ON THIS TEST!

## AP Unit 9 Practice

## Multiple Choice

Identify the choice that best completes the statement or answers the question.
$\qquad$ 1. When price goes down, the quantity demanded goes up. Price elasticity measures how:
a. much the price goes down.
b. much the quantity goes up.
c. responsive the price change is in relation to the quantity change.
d. responsive the quantity change is in relation to the price change.
e. responsive the consumer income change is in relation to the price change.
$\qquad$ 2. Using the midpoint method of elasticity to calculate the price elasticity of demand eliminates the problem of computing:
a. different elasticities, depending on whether price decreases or increases.
b. different elasticities because price and quantity are inversely related on the demand curve.
c. total revenue when price falls and demand is inelastic.
d. total revenue when price falls and demand is elastic.
e. different elasticities, depending on whether the demand curve is vertical or horizontal.
$\qquad$ 3. If the demand curve is downward sloping, as calculated the price elasticity of demand is:
a. always positive.
b. always greater than 1 .
c. usually equal to 1 .
d. always negative.
e. always equal to zero.
$\qquad$ 4. A men's tie store sold an average of 30 ties per day when the price was $\$ 6$ per tie. The same store sold 60 of the same ties per day when the price was $\$ 3$ per tie. In this case, the absolute value of the price elasticity of demand, is:
a. greater than zero but less than 1 .
b. equal to 1 .
c. greater than 1 but less than 3 .
d. greater than 3 .
e. equal to zero.
$\qquad$ 5. When a consumer consumes more of a good that has become cheaper in place of a good that has become relatively more expensive, this is known as the:
a. substitution effect.
b. income effect.
c. budget constraint.
d. inferior effect.
e. normal effect.
$\qquad$ 6. Each month Jessica buys exactly 4 Big Macs regardless of the price. Jessica's price elasticity of demand for Big Macs is:
a. 0 .
b. 1 .
c. greater than 1 , but less than 4 ..
d. less than 1 , but greater than 0 .
e. greater than 4 .
7. Suppose the price elasticity of demand for cheeseburgers equals 0.37 . This means the overall demand for cheeseburgers is:
a. price elastic.
b. price inelastic.
c. price unit-elastic.
d. perfectly price inelastic.
e. perfectly price elastic.
8. The university president believes that increasing student tuition by $5 \%$ will increase revenues. If the president is correct that revenues will increase, then the tuition increase will:
a. reduce the number of students enrolling by less than $5 \%$.
b. reduce the number of students enrolling by more than $5 \%$.
c. reduce the number of students enrolling by exactly $5 \%$.
d. increase the number of students enrolling by exactly $5 \%$.
e. increase the number of students enrolling by less than $5 \%$.

## Figure 47-2: Demand for Notebook Computers


9. (Figure 47-2: Demand for Notebook Computers) The change in the firm's total revenue resulting from a change in price from $P$ to $T$ suggests that demand is:
a. perfectly price-inelastic.
b. perfectly price-elastic
c. price-inelastic.
d. price unit-elastic.
e. price-elastic.
10. (Figure 47-2: Demand for Notebook Computers) The seller's total revenue at point $S$ equals the:
a. distance $0 P$.
b. distance $M S$.
c. area $0 T U M$.
d. area $0 P S M$.
e. area PSUT.
11. Along the lower half of a downward sloping linear demand curve, the price elasticity of demand will be:
a. price-inelastic.
b. price-elastic.
c. price unit-elastic.
d. perfectly price-elastic.
e. perfectly price-inelastic.
12. If total revenue goes down when price falls, the price elasticity of demand is said to be:
a. price-inelastic.
b. price unit-elastic.
c. price-elastic.
d. perfectly price-elastic.
e. equal to one.
13. When Joe's income is $\$ 100$ per week, he spends $\$ 20$ per week on pizza. When his income rises to $\$ 110$ per week, he spends $\$ 25$ per week on pizza. If the price of pizza remains constant, this information implies that for Joe:
a. pizza is a normal good and a luxury.
b. pizza is a normal good and a necessity.
c. pizza is an inferior good.
d. demand for pizza is price-elastic.
e. demand for pizza is price-inelastic.
14. To say that two goods are substitutes, their cross-price elasticities of demand should be:
a. less than 0 , but not less than -1 .
b. negative, yet almost equal to 0 .
c. equal to 0 .
d. greater than 0 .
e. less than -1 .
15. If the income elasticity of demand for a good is positive, the good is said to be $a(n)$ :
a. inferior good.
b. substitute good.
c. normal good.
d. positive good.
e. unrelated good.
16. Which of the following is likely to make supply more inelastic?
a. The time period under consideration is quite long.
b. The inputs necessary for production cannot readily be increased.
c. The good is necessary for survival (e.g., a life-saving drug).
d. Consumer income is rising.
e. Production technology is easily adjusted to changes in price.
17. The supply curve for a good will be more elastic if:
a. spending on the good accounts for a large share of a consumer's income.
b. the good is a luxury item.
c. production inputs are readily available at a relatively low cost.
d. there is very little time for producers to respond to a price change.
e. there are few substitute goods available for purchase.
18. Which of the following is true?
a. If the price elasticity of supply is greater than 1 , supply is price-elastic.
b. If the price elasticity of supply is greater than 1 , supply is price-inelastic.
c. If the price elasticity of supply is zero, supply is price unit-elastic.
d. If the price elasticity of supply is greater than 1 , quantity supplied is relatively unresponsive to price changes.
e. If the price elasticity is zero, the supply curve is horizontal.

## Figure 49-2: Consumer Surplus II


19. (Figure 49-2: Consumer Surplus II) At a price of $P_{2}$, consumer surplus equals the area:
a. $A B P_{2}$.
b. $A F P_{1}$.
c. $A Q_{3}$.
d. $P_{1} P_{2} B F$.
e. $0 P_{1} F Q_{1}$.

The table below shows the willingness to sell The Nutty Nutcracker tickets by five students who have those tickets as part of their student activity fees.

| Student | Willingness to Sell |
| :---: | :---: |
| Caitlin | $\$ 1$ |
| Dudley | 25 |
| Evan | 60 |
| Francisco | 90 |
| Grace | 100 |
| Table 49-6: Producer Surplus |  |

20. (Table 49-6: Producer Surplus) If the price of a ticket to see The Nutty Nutcracker is $\$ 50$ and there is no other market for tickets, then total producer surplus for the five students is:
a. $\quad \$ 50$.
b. $\$ 74$.
c. $\$ 100$.
d. $\$ 276$.
e. $\$ 86$.

Figure 49-8: Producer Surplus II

21. (Figure 49-8: Producer Surplus II) At a price of $P_{1}$, producer surplus equals the area:
a. $L M K$.
b. $\quad P_{1} K 0$.
c. $\quad P_{2} M 0$.
d. $P_{2} P_{1} K M$.
e. $0 P_{l} K Q_{l}$.

## Figure 49-15: Gain in Consumer Surplus


22. (Figure 49-15: Gain in Consumer Surplus) Identify the area(s) that represent the gain in consumer surplus to those consumers already participating in the market when the price falls from $P_{1}$ to $P_{2}$. Which of the following is correct?
a. A and B
b. B
c. B and C
d. C
e. E
23. Suppose the government imposes a $\$ 10$ excise tax on the sale of sweaters by charging suppliers $\$ 10$ for each sweater sold. If the demand curve for sweaters is downward sloping, we would predict that:
a. the price of sweaters will increase by $\$ 10$.
b. consumers of sweaters will bear the entire burden of the tax.
c. the quantity of sweaters purchased will increase.
d. the price of sweaters will decrease by $\$ 10$.
e. the price of sweaters will increase by less than $\$ 10$.
24. Recently, the government considered adding an excise tax on CDs that can be used to record music. If this tax is enacted, how would it affect the price consumers pay, the price producers receive, and the quantity of CDs exchanged?

|  | Price consumers pay | Price producers receive | Quantity of CDs <br> Exchanged |
| :--- | :--- | :--- | :--- |
| (A) | Higher | Lower | Fewer |
| (B) | Higher | Higher | Fewer |
| (C) | Lower | Lower | Fewer |
| (D) | Higher | Lower | More |
| (E) | Lower | Higher | More |

a. A
b. B
c. C
d. D
e. E
25. If an excise tax is imposed on automobiles and collected from consumers,:
a. the demand curve will shift downward by the amount of the tax.
b. the supply curve will shift upward by the amount of the tax.
c. the equilibrium quantity supplied will increase relative to the pre-tax level.
d. the equilibrium quantity demanded will increase relative to the pre-tax level.
e. the after-tax price paid by consumers will decrease.
26. The incidence of a tax:
a. is a measure of the revenue the government receives from the tax.
b. refers to who writes the check to the government.
c. refers to the share of the tax paid by consumers and the share paid by sellers.
d. is a measure of the deadweight loss from the tax.
e. is the price elasticity of demand after the tax is paid.

## Scenario 50-1: Market for Taxi Rides



| Fare <br> (per ride) | Quantity Demanded <br> (millions of <br> rides per year) | Quantity Supplied <br> (millions of <br> rides per year) |
| :---: | :---: | :---: |
| $\$ 7.00$ | 6 | 14 |
| 6.50 | 7 | 13 |
| 6.00 | 8 | 12 |
| 5.50 | 9 | 11 |
| 5.00 | 10 | 10 |
| 4.50 | 11 | 9 |
| 4.00 | 12 | 8 |
| 3.50 | 13 | 7 |
| 3.00 | 14 | 6 |

27. (Scenario 50-1: Market for Taxi Rides) The figure represents a competitive market for taxi rides. If the government now imposes an excise tax of $\$ 4$ per ride (causing the supply curve to shift upward by that amount), then the government will collect tax revenues of $\qquad$ , which might be used for worthwhile purposes. However, there will be a deadweight loss to society of $\qquad$ caused by this tax.
a. $\$ 9$ million; $\$ 1$ million
b. $\$ 16$ million; $\$ 2$ million
c. $\$ 21$ million; $\$ 6$ million
d. $\$ 24$ million; $\$ 8$ million
e. $\$ 12$ million; $\$ 4$ million
28. (Scenario 50-1: Market for Taxi Rides) The figure represents a competitive market for taxi rides. If the government now imposes an excise tax of $\$ 3$ per ride (causing the supply curve to shift upward by that amount), then the government will collect tax revenues of $\qquad$ , which might be used for worthwhile purposes, but there will be a deadweight loss to society of $\qquad$ caused by this tax.
a. $\$ 9$ million; $\$ 1$ million
b. $\$ 16$ million; $\$ 2$ million
c. $\$ 21$ million; $\$ 4.5$ million
d. $\$ 24$ million; $\$ 6$ million
e. $\$ 12$ million; $\$ 4$ million
29. (Scenario 50-1: Market for Taxi Rides) The figure represents a competitive market for taxi rides. If the government now imposes an excise tax of $\$ 1$ per ride (causing the supply curve to shift upward by that amount), then the government will collect tax revenues of $\qquad$ , which might be used for worthwhile purposes, but there will be a deadweight loss to society of $\qquad$ caused by this tax.
a. $\quad \$ 9$ million; $\$ 0.5$ million
b. $\$ 16$ million; $\$ 2$ million
c. $\$ 21$ million; $\$ 3$ million
d. $\$ 24$ million; $\$ 4$ million
e. $\$ 12$ million; $\$ 4$ million
30. Suppose the government imposes a $\$ 4$ excise tax on Good $Y$. If the demand for Good $Y$ is perfectly inelastic and the supply curve is elastic, then the price of Good Y will:
a. increase by more than $\$ 4$.
b. increase by exactly $\$ 4$.
c. increase, but by less than $\$ 4$.
d. remain constant.
e. decrease, but by less than $\$ 4$.
31. If the demand curve is downward-sloping and supply is perfectly elastic, then the burden of an excise tax is:
a. borne entirely by consumers.
b. borne entirely by producers.
c. shared by consumers and producers, with the burden falling mainly on consumers.
d. shared by consumers and producers, with the burden falling mainly on producers.
e. shared by consumers and producers, with the burden split equally.
32. An excise tax is a tax charged on:
a. imports
b. earnings.
c. the ownership of real estate.
d. the inheritance of assets.
e. each unit of a good or service that is sold.
33. Prior to any taxes, suppose the equilibrium price of gasoline is $\$ 3$ per gallon. A $\$ 1$ tax is levied on each gallon of gas that is supplied. As a result, the price of gasoline rises to $\$ 3.75$ per gallon. The incidence of the $\$ 1$ tax is:
a. $\$ 0.25$ paid by consumers, $\$ 0.75$ paid by producers.
b. $\$ 0.50$ paid by consumers, $\$ 0.50$ paid by producers.
c. $\$ 1.00$ paid by producers, $\$ 0$ paid by consumers.
d. $\$ 0.75$ paid by consumers, $\$ 0.25$ paid by producers.
e. $\$ 0$ paid by producers, $\$ 1.00$ paid by consumers.
34. Xavier notices that the marginal utility of working with a tutor seems to fall with each hour the tutor helps him study. If Xavier keeps the tutor until his grade actually begins to fall, his marginal utility will be:
a. diminishing and negative.
b. positive, but rising more slowly.
c. zero.
d. positive, but rising more quickly.
e. negative, but beginning to rise.
35. The utility of a good is determined by how much $\qquad$ a particular consumer obtains from it.
a. satisfaction
b. usefulness
c. cost
d. need fulfillment
e. loss
36. At the point where total utility is at a maximum, marginal utility is:
a. rising.
b. at its average value.
c. at a maximum.
d. zero.
e. negative.
37. The law of diminishing marginal utility indicates that the slope of the marginal utility curve eventually becomes:
a. negative.
b. vertical.
c. horizontal.
d. positive.
e. equal to zero.
38. Economists describe the satisfaction consumers receive from consuming goods and services as:
a. utility.
b. income effects.
c. budget constraints.
d. substitution effects.
e. elasticity.
39. Chuck spends all his income on two goods: tacos and milkshakes. His income is $\$ 100$, the price of tacos is $\$ 10$, and the price of milkshakes is $\$ 2$. Put tacos on the horizontal axis and milkshakes on the vertical axis. The horizontal intercept for Chuck's budget line is equal to $\qquad$ units of tacos.
a. 50
b. 10
c. 5
d. 100
e. 25
40. Chuck spends all his income on two goods: tacos and milkshakes. His income is $\$ 100$, the price of tacos is $\$ 10$, and the price of milkshakes is $\$ 2$. Put tacos on the horizontal axis and milkshakes on the vertical axis. The opportunity cost of one taco equals $\qquad$ units of milkshakes.
a. 2
b. 10
c. 5
d. $1 / 5$
e. 4
41. A consumer's spending is restricted because of:
a. marginal utility.
b. total utility.
c. a budget constraint.
d. utility maximization.
e. a production function.
42. Which of the following statements is true?
a. A budget constraint limits what a poor consumer can spend, but there is no similar constraint on rich people.
b. Utility maximization requires seeking the greatest utility from a given budget.
c. In consumer choice theory, we assume all goods and services are inferior.
d. The slope of the budget constraint depends on how much of each good is consumed.
e. The slope of the budget constraint gets steeper if the price of the good on the vertical axis increases.
43. 

| Pounds of <br> Oranges | Total Utility <br> from Oranges | Pounds of <br> Starfruit | Total Utility <br> from Starfruit |
| :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 0 |
| 1 | 24 | 1 | 70 |
| 2 | 44 | 2 | 130 |
| 3 | 60 | 3 | 180 |
| 4 | 72 | 4 | 220 |
| 5 | 80 | 5 | 250 |
| 6 | 84 | 6 | 270 |
| 7 | 84 | 7 | 280 |
| Table: Utility from Oranges and Starfruit |  |  |  |

Oranges costs $\$ 2$ per pound and starfruit cost $\$ 5$ per pound. The table shows Ned's total utility from eating various amounts of oranges and starfruits. How many pounds of oranges and starfruit should Ned eat, if Ned has $\$ 26$ ?
a. 0 pound of oranges, 5 pounds of starfruit, $\$ 1$ left over
b. 8 pounds of oranges and 2 pounds of starfruit
c. 3 pounds of oranges and 4 pounds of starfruit
d. 4 pounds of oranges and 5 pounds of starfruit
e. 3 pounds of oranges and 3 pounds of starfruit
44. Benny spends all his money buying wine and cheese. The marginal utility of the last bottle of wine is 60 , and the marginal utility of the last block of cheese is 30 . The price of wine is $\$ 3$, and the price of cheese is $\$ 2$.
Benny:
a. is buying wine and cheese in the utility-maximizing amounts.
b. should buy more wine and less cheese.
c. should buy more cheese and less wine.
d. is spending too much money on wine and cheese.
e. should buy more cheese and more wine.

## AP Unit 9 Practice

Answer Section

## MULTIPLE CHOICE

1. ANS: D
2. ANS: A
3. ANS: D
4. ANS: C
5. ANS: A
6. ANS: A
7. ANS: B
8. ANS: A
9. ANS: E
10. ANS: D
11. ANS: A
12. ANS: A
13. ANS: A
14. ANS: D
15. ANS: C
16. ANS: B
17. ANS: C
18. ANS: A
19. ANS: A
20. ANS: B
21. ANS: B
22. ANS: B
23. ANS: E
24. ANS: A
25. ANS: A
26. ANS: C
27. ANS: D
28. ANS: C
29. ANS: A
30. ANS: B
31. ANS: A
32. ANS: E
33. ANS: D
34. ANS: A
35. ANS: A
36. ANS: D
37. ANS: A
38. ANS: A
39. ANS: B

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MSC: Definitional
MSC: Concept-Based
MSC: Concept-Based
MSC: Analytical Thinking
MSC: Critical Thinking
MSC: Critical Thinking
MSC: Concept-Based
MSC: Concept-Based
MSC: Critical Thinking
MSC: Concept-Based
MSC: Fact-Based
MSC: Concept-Based
MSC: Analytical Thinking
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MSC: Definitional
MSC: Critical Thinking
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MSC: Critical Thinking
MSC: Critical Thinking
MSC: Definitional
MSC: Analytical Thinking
MSC: Concept-Based
MSC: Fact-Based
MSC: Concept-Based
MSC: Concept-Based
MSC: Definitional
MSC: Critical Thinking
40. ANS: C
41. ANS: C
42. ANS: B
43. ANS: C
44. ANS: B

PTS: 1
PTS: 1
PTS: 1
PTS: 1
PTS: 1

MSC: Critical Thinking
MSC: Fact-Based
MSC: Fact-Based
MSC: Analytical Thinking
MSC: Critical Thinking

