## Elasticity and Its Applications

1. In general, elasticity is
a. a measure of the competitive nature of a market.
b. the friction that develops between buyer and seller in a market.
c. a measure of how much government intervention is prevalent in a market.
d. a measure of how much buyers and sellers respond to changes in market conditions.

ANSWER: d. a measure of how much buyers and sellers respond to changes in market conditions.
2. Demand is said to be elastic if
a. the price of the good responds substantially to changes in demand.
b. the quantity demanded responds substantially to changes in the price of the good.
c. buyers don't respond much to changes in the price of the good.
d. demand shifts substantially when the price of the good changes.

ANSWER: $b$. the quantity demanded responds substantially to changes in the price of the good.
3. Demand for a good would tend to be more elastic, the
a. longer the period of time considered.
b. greater the availability of complements.
c. broader the definition of the market.
d. fewer substitutes there are.

ANSWER: a. longer the period of time considered.
4. Economists compute the price elasticity of demand as
a. percentage change in the price divided by the percentage change in quantity demanded.
b. change in quantity demanded divided by the change in the price.
c. percentage change in the quantity demanded divided by the percentage change in price.
d. percentage change in the quantity demanded divided by the percentage change in
income.
ANSWER: c. percentage change in the quantity demanded divided by the percentage change in price.
5. If there are very few, if any, good substitutes for good A, then
a. supply of good A would tend to be price elastic.
b. demand for good A would tend to be price inelastic.
c. demand for good A would tend to be price elastic.
d. demand for good A would tend to be income elastic.

ANSWER: b . demand for good A would tend to be price inelastic.
6. Suppose the price of product $X$ is reduced from $\$ 1.45$ to $\$ 1.25$ and, as a result, the quantity of $X$ demanded increases from 2,000 to 2,200 . Using the midpoint method, the price elasticity of demand for $X$ in the given price range is
a. $\quad 0.64$.
b. $\quad 1.00$.
c. $\quad 1.55$.
d. $\quad 2.00$.

ANSWER: a. 0.64.
7. The main reason for using the midpoint method is that it
a. uses fewer numbers.
b. rounds prices to the nearest dollar.
c. gives the same answer regardless of the direction of change.
d. rounds quantities to the nearest whole unit.

ANSWER: c. gives the same answer regardless of the direction of change.
8. If the demand curve is linear and downward sloping, which of the following would NOT be correct?
a. Elasticity will change with a movement down the curve.
b. The upper part of the demand curve is more elastic than the lower part.
c. The lower part of the demand curve would be less elastic than the upper part.
d. Elasticity and slope would both remain constant along the curve.

ANSWER: d. Elasticity and slope would both remain constant along the curve.
9. Demand is elastic if elasticity is
a. equal to 0 .
b. equal to 1.
c. less than 1.
d. greater than 1.

ANSWER: d. greater than 1.

10. In the graph shown, the section of the demand curve labeled A represents the
a. elastic section of the demand curve.
b. inelastic section of the demand curve.
c. unit elastic section of the demand curve.
d. perfectly elastic section of the demand curve.

ANSWER: a. elastic section of the demand curve.

11. On the graph shown, the elasticity of demand from point $B$ to point $C$, using the midpoint method would be
a. 1.3.
b. 1.0.
c. $\quad 0.75$.
d. $\quad 0.50$.

ANSWER: c. 0.75.
12. A perfectly elastic demand implies that
a. buyers will not respond to any change in price.
b. price and quantity demanded respond proportionally.
c. price will rise by an infinite amount when there is a change in quantity demanded.
d. any rise in price above that represented by the demand curve will result in no output
demanded.
ANSWER: d. any rise in price above that represented by the demand curve will result in no output demanded.
13. On a downward-sloping, linear demand curve, total revenue would be at a maximum at the
a. upper end of the demand curve.
b. midpoint of the demand curve.
c. lower end of the demand curve.
d. It is impossible to tell without knowing the price and quantity demanded.

ANSWER: b . midpoint of the demand curve.
14. When demand is inelastic, a decrease in price will cause
a. no change in total revenue.
b. an increase in total revenue.
c. a decrease in total revenue.
d. There is insufficient information to answer this question.

ANSWER: c. a decrease in total revenue.
15. The local pizza restaurant makes such great bread sticks that consumers do not respond much to a change in the price. If the owner is only interested in increasing revenue, he should
a. reduce costs.
b. lower the price of the bread sticks.
c. raise the price of the bread sticks.
d. leave the price of the bread sticks alone.

ANSWER: c. raise the price of the bread sticks.
16. If a change in the price of a good results in no change in total revenue,
a. the demand for the good must be elastic.
b. the demand for the good must be unit elastic.
c. the demand for the good must be inelastic.
d. buyers must not respond very much to a change in price.

ANSWER: b . the demand for the good must be unit elastic.
17. Assume that a 4 percent increase in income results in a 2 percent increase in the quantity
demanded of a good. The income elasticity of demand for the good is
a. positive and therefore the good is a normal good.
b. negative and therefore the good is an inferior good.
c. negative and therefore the good is a normal good.
d. positive and therefore the good is an inferior good.

ANSWER: a. positive and therefore the good is a normal good.
18. Cross-price elasticity of demand measures how the
a. quantity demanded of a good changes as price changes.
b. quantity demanded of a good changes as income changes.
c. price of a good is affected when income changes.
d. quantity demanded of one good changes as the price of another good changes.

ANSWER: d. quantity demanded of one good changes as the price of another good changes.
19. The price elasticity of supply measures how much
a. the quantity supplied responds to changes in the price of the good.
b. the quantity supplied responds to changes in input prices.
c. the price of the good responds to changes in supply.
d. sellers respond to changes in technology.

ANSWER: a. the quantity supplied responds to changes in the price of the good.
20. The main determinant of the price elasticity of supply is
a. time.
b. luxuries vs. necessities.
c. the definition of the market.
d. the number of close substitutes.

ANSWER: a. time.
21. Suppose that an increase in the price of carrots from $\$ 1.20$ to $\$ 1.40$ per pound raises the amount of carrots that carrot farmers are willing to supply from 1.2 million pounds to 1.6 million pounds. Using the midpoint method, what would be the elasticity of supply?

| a. | 0.50 |
| :--- | :--- |
| b. | 0.54 |
| c. | 1.86 |
| d. | 2.00 |
| ER: c. | 1.86 |

ANSWER: c. 1.86
22. If the elasticity of supply of a product is greater than 1, then supply is
a. inelastic.
b. elastic.
c. unit elastic.
d. not very sensitive to change in price.

ANSWER: b. elastic.
23. Supply tends to be
a. less price elastic in the long run.
b. perfectly price inelastic in the long run.
c. more price elastic in the long run.
d. perfectly price inelastic in the long run.

ANSWER: c. more price elastic in the long run.
24. A vertical supply curve signifies that
a. an infinite quantity will be supplied at a given price.
b. a change in price will have no effect on quantity supplied.
c. the relationship between price and quantity supplied is inverse.
d. a change in price will change quantity supplied in the opposite direction.

ANSWER: $b$. a change in price will have no effect on quantity supplied.
25. Suppose a producer is able to separate customers into two groups, one having a price inelastic demand and the other having a price elastic demand. If the producer's objective is to increase total revenue, she should
a. charge the same price to both groups of customers.
b. increase the price for both groups of customers.
c. increase the price charged to customers with the price elastic demand and decrease the price charged to customers with the price inelastic demand.
d. decrease the price charged to customers with the price elastic demand and increase the price charged to customers with the price inelastic demand.
ANSWER: d. decrease the price charged to customers with the price elastic demand and increase the price charged to customers with the price inelastic demand.

1 ANSWER: d. a measure of how much buyers and sellers respond to changes in market conditions. TYPE: M KEY1: D OBJECTIVE: 1 RANDOM: Y

2 ANSWER: b. the quantity demanded responds substantially to changes in the price of the good. TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

3 ANSWER: a. longer the period of time considered.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

4 ANSWER: c. percentage change in the quantity demanded divided by the percentage change in price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

5 ANSWER: b. demand for good A would tend to be price inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

6 ANSWER: a. 0.64.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y

7 ANSWER: c. gives the same answer regardless of the direction of change.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

8 ANSWER: d. Elasticity and slope would both remain constant along the curve.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

9 ANSWER: d. greater than 1.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

10 ANSWER: a. elastic section of the demand curve.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

11 ANSWER: c. 0.75.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

12 ANSWER: d. any rise in price above that represented by the demand curve will result in no output demanded.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

13 ANSWER: b. midpoint of the demand curve. TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

14 ANSWER: c. a decrease in total revenue.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

15 ANSWER: c. raise the price of the bread sticks.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

16 ANSWER: b. the demand for the good must be unit elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

17 ANSWER: a. positive and therefore the good is a normal good.
TYPE: M KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

18 ANSWER: d. quantity demanded of one good changes as the price of another good changes. TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

19 ANSWER: a. the quantity supplied responds to changes in the price of the good.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

20 ANSWER: a. time.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

21 ANSWER: c. 1.86
TYPE: M KEY1: E SECTION: 2 OBJECTIVE: 3 RANDOM: Y

22 ANSWER: b. elastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

23 ANSWER: c. more price elastic in the long run.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

24 ANSWER: b. a change in price will have no effect on quantity supplied.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

25 ANSWER: d. decrease the price charged to customers with the price elastic demand and increase the price charged to customers with the price inelastic demand.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: YChapter 5

