Chapter 4
Elasticity and Its Applications

MULTIPLE CHOICE

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

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

2. The price elasticity of demand measures
   a. how responsive buyers are to a change in income.
   b. how responsive sellers are to a change in price.
   c. how responsive buyers are to a change in price.
   d. how responsive sellers are to a change in buyers' income.

ANSWER: c. how responsive buyers are to a change in price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

3. Economists use the concept of price elasticity of demand to measure
   a. how much buyers respond to changes in the price of the good.
   b. how much sellers respond to changes in the price of the good.
   c. how much worse off consumers are when the price of the good rises.
   d. how much demand responds to changes in buyers' incomes.

ANSWER: a. how much buyers respond to changes in the price of the good.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

4. The concept of elasticity is used to
   a. analyze how much the economy is capable of expanding.
   b. analyze supply and demand with greater precision.
   c. determine the level of government invention in the economy.
   d. calculate consumer credit purchases.

ANSWER: b. analyze supply and demand with greater precision.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

5. Demand is said to be elastic
   a. if the price of the good responds substantially to changes in demand.
   b. if demand shifts substantially when the price of the good changes.
   c. if the quantity demanded responds substantially to changes in the price of the good.
   d. if buyers don't respond much to changes in the price of the good.

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

6. Demand is said to be inelastic
   a. if the price of the good responds only slightly to changes in demand.
   b. if demand shifts only slightly when the price of the good changes.
   c. if buyers respond substantially to changes in the price of the good.
   d. if the quantity demanded changes only slightly when the price of the good changes.

ANSWER: d. if the quantity demanded changes only slightly when the price of the good changes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

7. If a good is a necessity, demand for the good would tend to be
   a. elastic.
   b. inelastic.
   c. unit elastic.
   d. horizontal.

ANSWER: b. inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

8. If a good is a luxury, demand for the good would tend to be
   a. elastic.
   b. inelastic.
   c. unit elastic.
   d. horizontal.

ANSWER: a. elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

9. If a person has very little concern for his/her health, demand for health care would tend to be
   a. elastic.
   b. inelastic.
   c. unit elastic.
   d. horizontal.

ANSWER: a. elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

10. A person who lives to be on the sea in a boat would tend to have what type of demand for boats?
   a. elastic
   b. inelastic
   c. unit elastic
   d. weak

ANSWER: b. inelastic
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

11. Demand for a good would tend to be more elastic,
   a. the greater the availability of complements.
   b. the longer the period of time considered.
   c. the broader the definition of the market.
   d. the fewer substitutes there are.

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

12. Chocolate Chip ice cream would tend to have very elastic demand because
    a. other flavors of ice cream are almost perfect substitutes.
    b. the market is broadly defined.
    c. there are few substitutes.
    d. it must be eaten quickly.

ANSWER: a. other flavors of ice cream are almost perfect substitutes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

13. If there are very few, if any, good substitutes for good A, then
    a. the supply of good A would tend to be price elastic.
    b. the demand for good A would tend to be price elastic.
    c. the demand for good A would tend to be price inelastic.
    d. the demand for good A would tend to be income elastic.

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

14. Holding all other forces constant, when the price of gasoline rises, the number of gallons of gasoline demanded would fall substantially over a ten year period because
    a. buyers tend to be much less sensitive to a change in price when given more time to react.
    b. buyers will have substantially more income over a ten year period.
    c. buyers tend to be much more sensitive to a change in price when given more time to react.
    d. None of these answers are correct.

ANSWER: c. buyers tend to be much more sensitive to a change in price when given more time to react.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

15. The demand for a good tends to be more elastic
    a. the greater the availability of close substitutes.
    b. the narrower the definition of the market.
    c. the longer the period of time.
    d. All of the above are correct.

ANSWER: d. All of the above are correct.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

16. Economists compute the price elasticity of demand as
    a. the percentage change in the price divided by the percentage change in quantity demanded.
    b. the percentage change in the quantity demanded divided by the percentage change in price.
    c. the change in quantity demanded divided by the change in the price.
    d. the percentage change in the quantity demanded divided by the percentage change in income.

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

17. Suppose there is a 6 percent increase in the price of good X and a resulting 6 percent decrease in the quantity of X demanded. Price elasticity of demand for X is
    a. 1.
    b. 6.
    c. 0.
    d. infinite.

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

18. 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. 2.00.
    b. 1.55.
    c. 1.00.
    d. .64.

ANSWER: d. .64.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y

19. If the price elasticity of demand for a good is 4.0, then a 10 percent increase in price would result in a
    a. 4.0 percent decrease in the quantity demanded.
    b. 10 percent decrease in the quantity demanded.
    c. 40 percent decrease in the quantity demanded.
    d. 400 percent decrease in the quantity demanded.

ANSWER: c. 40 percent decrease in the quantity demanded.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y

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

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

21. Demand is elastic if
    a. elasticity is less than 1.
    b. elasticity is equal to 1.
    c. elasticity is greater than 1.
    d. elasticity is equal to 0.

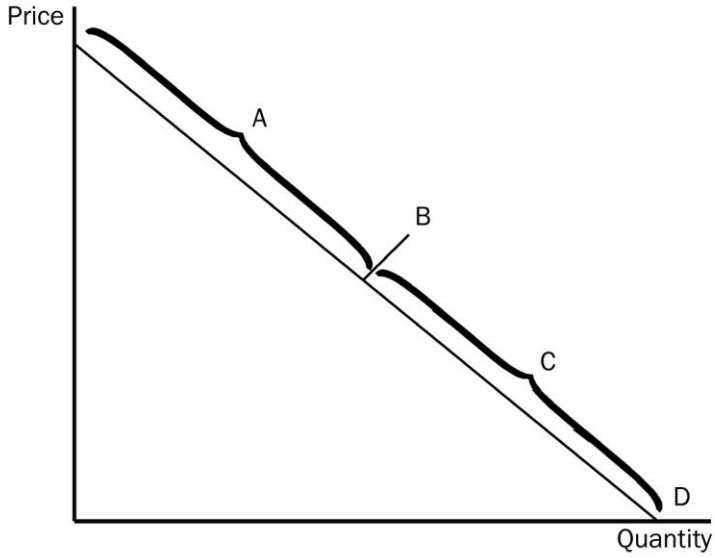
ANSWER: c. elasticity is greater than 1.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

22. Demand is inelastic if
    a. elasticity is less than 1.
    b. elasticity is equal to 1.
    c. elasticity is greater than 1.
    d. elasticity is equal to 0.

ANSWER: a. elasticity is less than 1.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

23. Demand is unit elastic if
    a. elasticity is less than 1.
    b. elasticity is equal to 1.
    c. elasticity is greater than 1.
    d. elasticity is equal to 0.

ANSWER: b. elasticity is equal to 1.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y



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

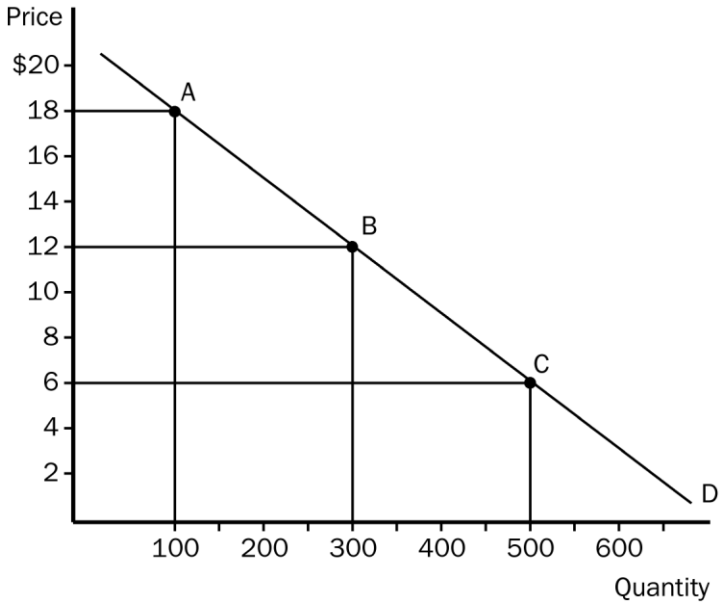
ANSWER: a. the elastic section of the demand curve.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

25. In the graph shown, the point on the demand curve labeled B represents
    a. the elastic section of the demand curve.
    b. the inelastic section of the demand curve.
    c. the unit elastic section of the demand curve.
    d. the perfectly elastic section of the demand curve.

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

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

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



27. On the graph shown, the elasticity of demand from point A to point B, using the midpoint method would be
    a. 1
    b. 1.5
    c. 2
    d. 2.5

ANSWER: d. 2.5
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

28. On the graph shown, the elasticity of demand from point B to point C, using the midpoint method would be
    a. 0.5
    b. 0.75
    c. 1.0
    d. 1.3

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

29. Demand is said to be inelastic if the
    a. quantity demanded changes proportionately more than the price.
    b. quantity demanded changes proportionately less than the price.
    c. price changes proportionately more than income.
    d. quantity demanded changes proportionately the same as the price.

ANSWER: b. quantity demanded changes proportionately less than the price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

30. Demand is said to be unit elastic if
    a. the demand curve shifts by the same percentage amount as the price.
    b. quantity demanded changes by a larger percent than the price.
    c. quantity demanded changes by the same percent as the price.
    d. quantity demanded does not respond to a change in price.

ANSWER: c. quantity demanded changes by the same percent as the price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

31. Elasticity of demand is closely related to the slope of the demand curve. The more responsive buyers are to a change in price, the _____ the demand curve .
    a. steeper
    b. further to the right
    c. flatter
    d. closer to the vertical axis

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

32. A perfectly elastic demand implies that
    a. buyers will not respond to any change in price.
    b. any rise in price above that represented by the demand curve will result in no output demanded.
    c. price and quantity demanded respond proportionally.
    d. price will rise by an infinite amount when there is a change in quantity demanded.

ANSWER: b. 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

33. A perfectly elastic demand curve will be
    a. vertical.
    b. horizontal.
    c. downward sloping to the right.
    d. upward sloping to the right.

ANSWER: b. horizontal.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

34. A perfectly inelastic demand implies that
    a. buyers decrease their purchases when the price rises.
    b. buyers respond substantially to an increase in price.
    c. buyers increase their purchases only slightly when the price falls.
    d. buyers purchase the same amount when the price rises or falls.

ANSWER: d. buyers purchase the same amount when the price rises or falls.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

35. Alice says that she would buy one banana split a day regardless of the price. If she is telling the truth,
    a. Alice's demand for banana splits is perfectly inelastic.
    b. Alice's price elasticity of demand for banana splits is 1.
    c. Alice's income elasticity of demand for banana splits is negative.
    d. None of the above answers are correct.

ANSWER: a. Alice's demand for banana splits is perfectly inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

36. In any market, total revenue is
    a. the price divided by the price elasticity of demand.
    b. the price multiplied by the quantity.
    c. the price plus the quantity.
    d. the price multiplied by the quantity minus the costs of production.

ANSWER: b. the price multiplied by the quantity.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

37. How does total revenue change as one moves down a linear demand curve?
    a. It increases.
    b. It decreases.
    c. It first increases, then decreases.
    d. It is unaffected by a movement along the demand curve.

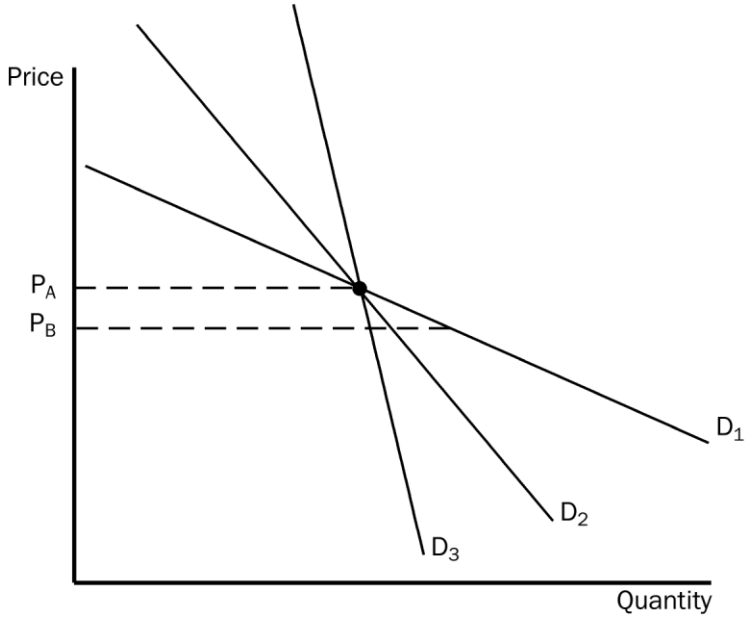
ANSWER: c. It first increases, then decreases.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

38. On a downward sloping, linear demand curve, total revenue would be at a maximum
    a. at the upper end of the demand curve.
    b. at the lower end of the demand curve.
    c. at the midpoint of the demand curve.
    d. It is impossible to tell without knowing the price and quantity demanded.

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

39. At the midpoint of a downward sloping linear demand curve, elasticity would be
    a. inelastic.
    b. elastic.
    c. unit elastic.
    d. perfectly elastic.

ANSWER: c. unit elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y



40. In the graph shown, as price falls from P_A to P_B, which demand curve is most elastic?
    a. D_1
    b. D_2
    c. D_3
    d. All of the above are equally elastic.

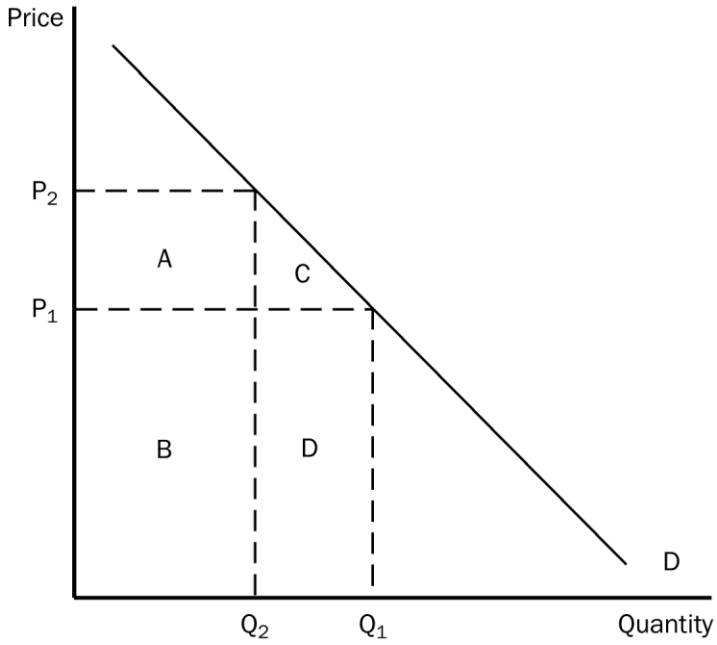
ANSWER: a. D_1
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M INSTRUCTION: 1 RANDOM: N

41. In the graph shown, as price falls from P_A to P_B, which demand curve is least elastic?
    a. D_1
    b. D_2
    c. D_3
    d. All of the above are equally elastic.

ANSWER: c. D_3
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M INSTRUCTION: 1 RANDOM: N

42. When demand is inelastic, a decrease in price will cause
    a. an increase in total revenue.
    b. a decrease in total revenue.
    c. no change in total revenue.
    d. There is insufficient information to answer this question.

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



43. Refer to the graph shown. The total revenue at P_1 is represented by area(s)
    a. B + D.
    b. A + B.
    c. C + D.
    d. D.

ANSWER: a. B + D.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M RANDOM: N

44. Refer to the graph shown. Total revenue at P_2 would be represented by area(s)
    a. B + D.
    b. A + B.
    c. C + D.
    d. D.

ANSWER: b. A + B.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M RANDOM: N

45. 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. lower the price of the bread sticks.
    b. raise the price of the bread sticks.
    c. leave the price of the bread sticks alone.
    d. reduce costs.

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

46. You produce jewelry boxes. If the demand for jewelry boxes is elastic and you want to increase your total revenue, you should
    a. decrease the price of your jewelry boxes.
    b. increase the price of your jewelry boxes.
    c. not change the price of your jewelry boxes.
    d. None of the above answers are correct.

ANSWER: a. decrease the price of your jewelry boxes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

47. When demand is elastic in the current price range,
    a. an increase in price would increase total revenue because the decrease in quantity demanded is less than the increase in price.
    b. an increase in price would decrease total revenue because the decrease in quantity demanded is greater than the increase in price.
    c. a decrease in price would decrease total revenue because the increase in quantity demanded is smaller than the decrease in price.
    d. a decrease in price would not affect the total revenue.

ANSWER: b. an increase in price would decrease total revenue because the decrease in quantity demanded is greater than the increase in price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

48. Holding all other forces constant, if raising the price of a good results in less total revenue,
    a. the demand for the good must be elastic.
    b. the demand for the good must be inelastic.
    c. the demand for the good must be unit elastic.
    d. the demand for the good must be perfectly inelastic.
ANSWER: a. the demand for the good must be elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

49. 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 inelastic.
    c. the demand for the good must be unit elastic.
    d. buyers must not respond very much to a change in price.
ANSWER: c. the demand for the good must be unit elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

50. If the demand curve is linear and downward sloping, which of the following would NOT be correct?
    a. The upper part of the demand curve is more elastic than the lower part.
    b. Elasticity will change with a movement down the curve.
    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.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

51. Suppose that 50 candy bars are demanded at a particular price. Using the midpoint method, if the price of candy bars rises by 4 percent, the number of candy bars demanded falls to 46 candy bars. This means that
    a. the demand for candy bars in this price range is elastic.
    b. the demand for candy bars in this price range is inelastic.
    c. the price elasticity of demand for candy bars is 0.
    d. the demand for candy bars is unit elastic.
ANSWER: a. the demand for candy bars in this price range is elastic.
TYPE: M KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

52. Last year, Sheila bought 10 DVD movies when her income was $40,000. This year, her income is $50,000 and she purchased 20 DVD movies. All else constant, it is obvious that
    a. Sheila prefers DVD movies to VHS videos.
    b. Sheila considers DVD movies to be a normal good.
    c. Sheila considers DVD movies to be an inferior good.
    d. Sheila has a price elastic demand for DVD movies.
ANSWER: b. Sheila considers DVD movies to be a normal good.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

53. Income elasticity of demand measures
    a. how the quantity demanded changes as consumer income changes.
    b. how consumer purchasing power is affected by a change in the price of a good.
    c. how the price of a good is affected when there is a change in consumer income.
    d. how many units of a good a consumer can buy given a certain income level.
ANSWER: a. how the quantity demanded changes as consumer income changes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

54. Which of the following would you expect to have the highest income elasticity of demand?
    a. diamonds
    b. water
    c. hamburger
    d. housing

ANSWER: a. diamonds
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

55. Last year, Joan bought 50 pounds of hamburger when the household income was $40,000. This year, the household income was only $30,000 and Joan bought 60 pounds of hamburger. All else constant Joan's income elasticity of demand for hamburger is
    a. positive, so Joan considers hamburger to be an inferior good.
    b. positive, so Joan considers hamburger to be a normal good and a necessity.
    c. negative, so Joan considers hamburger to be an inferior good.
    d. negative, so Joan considers hamburger to be a normal good.

ANSWER: c. negative, so Joan considers hamburger to be an inferior good.
TYPE: M KEY1: D SECTION: 4 OBJECTIVE: 5 RANDOM: Y

56. If an increase in income results in a decrease in the quantity demanded of a good, then the good is
    a. a normal good.
    b. a necessity.
    c. an inferior good.
    d. a luxury.

ANSWER: c. an inferior good.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

57. Suppose that good X has a negative income elasticity of demand. This implies that the good is
    a. a normal good.
    b. a necessity.
    c. an inferior good.
    d. a luxury.

ANSWER: c. an inferior good.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

58. 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. negative and therefore the good is an inferior good.
    b. negative and therefore the good is a normal good.
    c. positive and therefore the good is an inferior good.
    d. positive and therefore the good is a normal good.

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

59. Assume that a 4 percent increase in income results in a 2 percent decrease in the quantity demanded of a good. The income elasticity of demand for the good is
    a. negative and therefore the good is an inferior good.
    b. negative and therefore the good is a normal good.
    c. positive and therefore the good is an inferior good.
    d. positive and therefore the good is a normal good.

ANSWER: a. negative and therefore the good is an inferior good.
TYPE: M KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

	Quantities Purchased	
Income	Good X	Good Y
$30,000	2	20
50,000	5	10

60. Refer to the table. Using the midpoint method, what is the income elasticity of good Y?
    a. -0.75
    b. 0.75
    c. -1.33
    d. 0

ANSWER: c. -1.33
TYPE: M KEY1: T SECTION: 1 OBJECTIVE: 2 INSTRUCTION: 1 RANDOM: N

61. Refer to the table. Good X is
    a. a normal good.
    b. an inferior good.
    c. underpriced.
    d. very price elastic.

ANSWER: a. a normal good.
TYPE: M KEY1: T SECTION: 1 OBJECTIVE: 2 INSTRUCTION: 1 RANDOM: N

62. Refer to the table. Good Y is
    a. not related to income.
    b. an inferior good.
    c. price inelastic.
    d. a normal good.

ANSWER: b. an inferior good.
TYPE: M KEY1: T SECTION: 1 OBJECTIVE: 2 INSTRUCTION: 1 RANDOM: N

63. Cross-price elasticity of demand measures
    a. how the quantity demanded of a good changes as price changes.
    b. how the quantity demanded of one good changes as the price of another good changes.
    c. how the quantity demanded of a good changes as income changes.
    d. how the price of a good is affected when income changes.

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

64. Cross-price elasticity of demand is calculated as
    a. the percentage change in quantity demanded of good 1 divided by the percentage change in the price of good 2.
    b. the total percentage change in quantity demanded divided by the total percentage change in price.
    c. the percentage change in quantity demanded divided by the percentage change in income.
    d. none of the above.

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

65. If the cross-price elasticity of demand is negative, then the two goods would be
    a. substitutes.
    b. luxuries.
    c. complements.
    d. normal goods.

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

66. If the cross-price elasticity of demand is 1.25, then the two goods would be
    a. complements.
    b. luxuries.
    c. normal goods.
    d. substitutes.

ANSWER: d. substitutes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

67. Food and clothing tend to have
    a. small income elasticities because consumers, regardless of their incomes, choose to buy these goods.
    b. small income elasticities because consumers will buy proportionately more at higher income levels than they will at low income levels.
    c. large income elasticities because they are necessities.
    d. large income elasticities because they are relatively cheap.

ANSWER: a. small income elasticities because consumers, regardless of their incomes, choose to buy these goods.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

68. The demand for caviar tends to be
    a. income elastic because it is relatively expensive.
    b. income inelastic because it is packaged in small containers.
    c. income elastic because buyers generally feel that they can do without it.
    d. income inelastic because it is scarce.

ANSWER: c. income elastic because buyers generally feel that they can do without it.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

69. Suppose the government increases the tax on gasoline in order to raise revenue. Since raising the gasoline tax would increase the price of gasoline, the government must be assuming that
    a. the demand for gasoline is price elastic.
    b. the demand for gasoline is price inelastic.
    c. the demand for gasoline is price unit elastic.
    d. the tax on gasoline will not affect the consumption of gasoline.

ANSWER: b. the demand for gasoline is price inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

70. Suppose the price elasticity of demand for basketballs is 1.20. A 15 percent increase in price will result in
    a. an 18 percent decrease in the quantity of basketballs demanded.
    b. a 15 percent decrease in the quantity of basketballs demanded.
    c. an 8 percent reduction in the number of basketballs demanded.
    d. a 12.5 percent reduction in the number of basketballs demanded.

ANSWER: a. an 18 percent decrease in the quantity of basketballs demanded.
TYPE: M KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

71. Get Smart University is contemplating increasing tuition to enhance revenue. If GSU feels that raising tuition would enhance revenue,
    a. they are necessarily ignoring the law of demand.
    b. they are assuming that the demand for university education is elastic.
    c. they are assuming that the supply of university education is elastic.
    d. they are assuming that the demand for university education is inelastic.

ANSWER: d. they are assuming that the demand for university education is inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

72. The price elasticity of supply measures
    a. how much the quantity supplied responds to changes in input prices.
    b. how much the quantity supplied responds to changes in the price of the good.
    c. how much the price of the good responds to changes in supply.
    d. how much sellers respond to changes in technology.

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

73. The price elasticity of supply measures
    a. how responsive buyers are to a change in income.
    b. how responsive sellers are to a change in price.
    c. how responsive buyers are to a change in price.
    d. how responsive sellers are to a change in buyers' income.

ANSWER: b. how responsive sellers are to a change in price.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

74. Holding all else constant, if a pencil manufacturer increases production by 20 percent when the market price of pencils increases from $0.50 to $0.60, then the price elasticity of supply, using the midpoint method, must be
    a. elastic.
    b. very inelastic.
    c. slightly inelastic.
    d. unit elastic.

ANSWER: a. elastic.
TYPE: M KEY1: E SECTION: 2 OBJECTIVE: 3 RANDOM: Y

75. If sellers respond substantially to changes in the price, then
    a. sellers are considered to be relatively price sensitive.
    b. sellers are considered to be relatively price insensitive.
    c. the supply curve will shift substantially when the price rises.
    d. the price elasticity of supply equals 1.

ANSWER: a. sellers are considered to be relatively price sensitive.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

76. If the quantity supplied responds only slightly to changes in price, then
    a. supply is said to be elastic.
    b. increases in supply resulting from an increase in price will not shift the supply curve very much.
    c. supply is said to be inelastic.
    d. supply is said to be unit elastic.

ANSWER: c. supply is said to be inelastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

77. The main determinant of the price elasticity of supply is
    a. time.
    b. the definition of the market.
    c. the number of close substitutes.
    d. luxuries vs. necessities.

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

78. 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 produce from 1.2 million pounds to 1.6 million pounds. Using the midpoint method, what would be the elasticity of supply?
    a. 0.54
    b. 0.50
    c. 2.00
    d. 1.86

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

79. In the long run, the quantity supplied of most goods
    a. can respond substantially to a change in price.
    b. cannot respond much to a change in price.
    c. cannot respond at all to a change in price.
    d. will naturally increase regardless of what happens to price.

ANSWER: a. can respond substantially to a change in price.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

80. When a supply curve is relatively flat,
    a. the supply is relatively elastic.
    b. the supply is relatively inelastic.
    c. sellers are not at all responsive to change in price.
    d. quantity supplied changes slightly when the price changes.

ANSWER: a. the supply is relatively elastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

81. If sellers do NOT respond at all to a change in price,
    a. supply must be perfectly inelastic.
    b. supply must be perfectly elastic.
    c. a long period of time must have elapsed.
    d. technological advancement must be great.

ANSWER: a. supply must be perfectly inelastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

82. If an increase in the price of a good results in an increase in total revenue for the firm, then
    a. the supply of the good must be unit elastic.
    b. the supply of the good must be inelastic.
    c. the supply of the good must be elastic.
    d. Nothing can be said about price elasticity of supply from the information given.

ANSWER: d. Nothing can be said about price elasticity of supply from the information given.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

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

ANSWER: a. supply is elastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

84. The discovery of a new hybrid wheat would tend to increase the supply of wheat. Under what conditions would wheat farmers realize an increase in revenue?
    a. If the supply of wheat is elastic.
    b. If the supply of wheat is inelastic.
    c. If the demand for wheat is inelastic.
    d. If the demand for wheat is elastic.

ANSWER: d. If the demand for wheat is elastic.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

85. Because the demand for wheat tends to be inelastic, the development of a new, more productive hybrid wheat would tend to
    a. increase the total revenue of wheat farmers.
    b. decrease the total revenue of wheat farmers.
    c. weaken the demand for wheat.
    d. weaken the supply of wheat.

ANSWER: b. decrease the total revenue of wheat farmers.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

86. Knowing that the demand for wheat is inelastic, if all farmers voluntarily plowed under 10 percent of their wheat crop, then
    a. wheat farmers would increase their revenue.
    b. wheat farmers would suffer a reduction in their revenue.
    c. consumers of wheat would buy more wheat.
    d. the demand for wheat would decrease.

ANSWER: a. wheat farmers would increase their revenue.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

87. Which of the following was NOT a reason why OPEC failed to keep the price of oil high?
    a. Over the long run, producers of oil outside of OPEC responded to high price by increasing oil exploration and by building new extraction capacity.
    b. Consumers responded to higher prices with greater conservation.
    c. Consumers replaced old inefficient cars with newer efficient ones.
    d. The agreement OPEC members signed allowed each country to produce as much oil as each wanted.

ANSWER: d. The agreement OPEC members signed allowed each country to produce as much oil as each wanted.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

88. Which of the following is NOT a reason why government drug interdiction increases drug-related crime?
    a. Because demand for such drugs tends to be very inelastic.
    b. Addicts would have a greater need for quick cash.
    c. Government drug programs are more lenient now with drug offenders than in the 1980s.
    d. The total amount of money needed to buy the amount of drugs needed increases.

ANSWER: c. Government drug programs are more lenient now with drug offenders than in the 1980s.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

Suppose there is a baseball park with 10,000 seats and a demand for seats in the park as follow:.

Price per Ticket	Quantity Demanded
$20	2,000
16	4,000
12	6,000
8	8,000
6	10,000
4	12,000
2	14,000

89. Referring to the given information, if the management of the baseball park charges $8 per ticket
    a. there will be a shortage of tickets.
    b. there will be 2,000 empty seats.
    c. there will be 4,000 empty seats.
    d. revenue will be maximized.

ANSWER: b. there will be 2,000 empty seats.
TYPE: M KEY1: T SECTION: 3 OBJECTIVE: 4 INSTRUCTION: 2 RANDOM: N

90. Referring to the given information, the supply of seats
    a. is perfectly inelastic.
    b. is perfectly elastic.
    c. increases as price increases.
    d. decreases as price increases.

ANSWER: a. is perfectly inelastic.
TYPE: M KEY1: T SECTION: 3 OBJECTIVE: 4 INSTRUCTION: 2 RANDOM: N

91. Refer to the given information. Notice that lowering the price from $8 to $6 per ticket decreases revenue by $4,000. In the $6 to $8 price range, demand for baseball tickets must be
    a. price elastic
    b. price inelastic
    c. price unit elastic
    d. income elastic

ANSWER: b. price inelastic
TYPE: M KEY1: T SECTION: 3 OBJECTIVE: 4 INSTRUCTION: 2 RANDOM: N

92. Supply tends to be
    a. less price elastic in the long run.
    b. more price elastic in the long run.
    c. perfectly price inelastic in the long run.
    d. perfectly price inelastic in the short run.

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

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

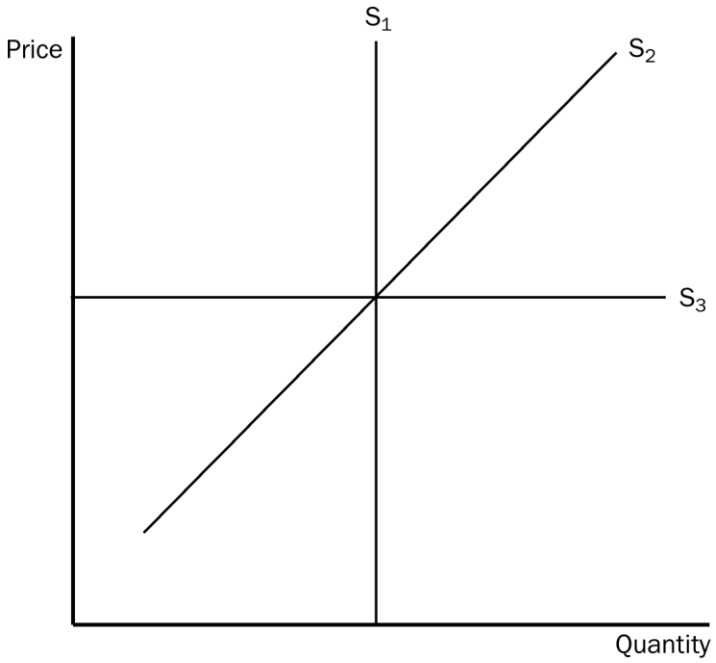
ANSWER: a. a change in price will have no effect on quantity supplied.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

94. Generally, a firm would be able to respond most to a change in price in
    a. one month.
    b. six months.
    c. one year.
    d. There would be no difference in a firm's ability to respond among answers a, b, and c.

ANSWER: c. one year.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

95. Suppose that you are in charge of pricing at a local ski rental shop. The business needs to increase revenue and your job is on the line. If the supply of skis is elastic
    a. you should increase the rental price of skis.
    b. you should decrease the rental price of skis.
    c. you should not change the rental price of skis.
    d. you could not determine what to do with rental price until you determine whether demand is elastic or inelastic.

ANSWER: d. you could not determine what to do with rental price until you determine whether demand is elastic or inelastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y



96. In the graph shown, which supply curve is perfectly inelastic?
    a. S_1
    b. S_2
    c. S_3
    d. It is impossible to tell without more information.

ANSWER: a. S_1
TYPE: M KEY1: G SECTION: 2 OBJECTIVE: 4 GRAPH FORMAT: M INSTRUCTION: 2 RANDOM: N

97. In the graph shown, which supply curve is most likely the long-run supply curve?
    a. S_1
    b. S_2
    c. S_3
    d. All of the above are equally likely to be the long-run supply curve.

ANSWER: c. S_3
TYPE: M KEY1: G SECTION: 2 OBJECTIVE: 4 GRAPH FORMAT: M INSTRUCTION: 2 RANDOM: N

98. 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. increase the price charged to customers with the price elastic demand and decrease the price charged to customers with the price inelastic demand.
    b. decrease the price charged to customers with the price elastic demand and increase the price charged to customers with the price inelastic demand.
    c. charge the same price to both groups of customers.
    d. increase the price for both groups of customers.

ANSWER: b. 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: Y

TRUE/FALSE

99. To measure how much demand responds to changes in its determinants, economists use the concept of slope.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

100. Demand for a good is said to be elastic if the quantity demanded responds substantially to changes in the price.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

101. Demand for a good is said to be inelastic if the quantity demanded increases substantially when the price falls by a small amount.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

102. Necessities tend to have price inelastic demands, whereas luxuries have price elastic demands.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

103. The demand for insulin is probably elastic.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

104. Goods with close substitutes tend to have more elastic demands than do goods without close substitutes.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

105. Narrowly defined markets tend to have more elastic demands than do broadly defined markets.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

106. The demand for Rice Krispies is more elastic than the demand for cereal.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

107. Goods tend to have more elastic demand over shorter time horizons.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

108. The demand for gasoline will respond more to a change in price over a period of five years than over a period of five weeks.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

109. The price elasticity of demand is defined as the percentage change in quantity demanded divided by the percentage change in price.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

110. The price of hamburger increases by 25% and the quantity demanded per week falls by 50%. The price elasticity of demand is 2.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

111. Demand is elastic if the elasticity is greater than 1.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

112. Demand is inelastic if the elasticity is less than 2.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

113. If the price elasticity of demand is equal to 0, demand is unit elastic.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

114. The midpoint method is used to calculate elasticity because it gives the same answer regardless of the direction of the change between two points.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

115. The flatter the demand curve that passes through a given point, the more inelastic the demand.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

116. If demand is perfectly inelastic, the demand curve is vertical, and elasticity is equal to 0.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

117. A demand curve which is horizontal is perfectly elastic, and the elasticity is equal to 1.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

118. When demand is elastic, a price increase reduces total revenue.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

119. When demand is inelastic, a decrease in price increases total revenue.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

120. Slope is the ratio of the changes in two variables, while elasticity is the ratio of the percentage changes in two variables.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

121. A linear demand curve has constant elasticity, but not constant slope.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

122. A linear demand curve becomes more elastic as price falls.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

123. As price elasticity of demand increases, the demand curve gets steeper and steeper.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

124. The income elasticity of demand measures how hours worked change when the hourly wage changes.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

125. The income elasticity of demand is defined as the percentage change in quantity demanded divided by the percentage change in income.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

126. Normal goods have positive income elasticities of demand, while inferior goods have negative income elasticities of demand.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

127. Luxuries tend to have large income elasticities, and necessities tend to have smaller, positive income inelasticities.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

128. The demand for basic foodstuffs such as wheat is usually elastic.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

129. Cross-price elasticity of demand measures how the quantity demanded of one good changes as the price of another good changes.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

130. Cross-price elasticity is used to determine whether goods are inferior or normal goods.
ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

131. The cross-price elasticity of demand will be negative for complement goods and positive for substitute goods.
ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

132. Price elasticity of supply measures how much the quantity supplied responds to changes in the price.
ANSWER: T
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

133. Supply is said to be inelastic if the quantity supplied responds substantially to changes in the price, and elastic if the quantity supplied responds only slightly to price.
ANSWER: F
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

134. The supply of farmland is less elastic than is the supply of wheat.
ANSWER: T
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

135. Supply tends to be more elastic in the short run and more inelastic in the long run.
ANSWER: F
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

136. Price elasticity of supply is defined as the percentage change in quantity supplied divided by the percentage change in price.
ANSWER: T
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

137. When the price of roller bearings increased by 10%, Acme Roller Bearing Company increased their quantity supplied of roller bearings per week by 25%. Acme's price elasticity of supply of roller bearings is 0.4.
ANSWER: F
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

138. If a supply curve is horizontal, it is said to be perfectly elastic, and the price elasticity of supply approaches infinity.
ANSWER: T
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

139. A government program which reduces land under cultivation hurts farmers but helps consumers.
ANSWER: F
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

140. While a reduction in total agricultural production may benefit farmers as a group, it will not benefit an individual farmer to reduce his production.
ANSWER: T
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

141. OPEC failed to maintain a high price of oil in the long run because both the supply of oil and the demand for oil are more elastic in the long run than in the short run.
ANSWER: T
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

142. Drug interdiction, which reduces the supply of drugs, may decrease drug-related crime because the demand for drugs is inelastic.
ANSWER: F
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

143. Drug education, which reduces the demand for drugs, can reduce both drug use and drug-related crime.
ANSWER: T
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

SHORT ANSWER

144. What is elasticity and why do economists use the concept?
ANSWER: Elasticity is a measure of relative responsiveness of supply or demand to changes in one of the determinants of supply or demand. Economists use the concept in order to analyze the percentage change in supply or demand that occurs as a result of a 1 percent change in a determinant. It allows economists to conduct a quantitative analysis of supply and demand rather than simply a qualitative analysis.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 1 RANDOM: Y

145. Why do economists use elasticity instead of slope to measure the response of quantity to changes in price?
ANSWER: The perceptive student will note that slope measures the ratio of absolute changes, and therefore is sensitive to units of measurement, while the elasticity measures ratios of percentage changes, and therefore is a pure number, independent of units of measurement.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

146. What is the price elasticity of demand? What are the determinants of price elasticity of demand, and how does each affect elasticity?
ANSWER: The price elasticity of demand is a measure of how much the quantity demanded responds to a change in price. It is defined as the percentage change in quantity demanded divided by the percentage change in price. If the elasticity is greater than 1, the good is said to be elastic and if elasticity is less than one the good is said to be inelastic. If elasticity is exactly equal to 1, the good is unitary elastic.
Determinants of price elasticity of demand include:
(1) Whether the good is a luxury or a necessity. Luxuries tend to have higher price elasticities of demand and necessities tend to have small price elasticities of demand.
(2) Availability of close substitutes. Goods with close substitutes tend to have more elastic demand than do goods without close substitutes.
(3) Definition of the market. Narrowly defined markets tend to have more elastic demand, and broadly defined markets tend to have less elastic demand.
(4) Time horizon. The longer the time horizon over which demand is measured, the greater is the ability of buyers of the good to find substitutes for products whose prices have risen. Therefore, the longer the time horizon, *ceteris paribus*, the larger is the elasticity of demand.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

147. Consider the following pairs of goods. Which would you expect to have the more elastic demand? Why?
a. water or diamonds
b. insulin or nasal decongestant spray
c. food in general or breakfast cereal
d. gasoline over the course of a week or gasoline over the course of a year
e. personal computers or IBM personal computers
ANSWER: a. Diamonds are luxuries, and water is a necessity. Therefore, diamonds have the more elastic demand.
b. Insulin has no close substitutes, but decongestant spray does. Therefore, nasal decongestant spray has the more elastic demand.
c. Breakfast cereal has more substitutes than does food in general. Therefore, breakfast cereal has the more elastic demand.
d. The longer the time period, the more elastic demand. Therefore, gasoline over the course of a year has the more elastic demand.

e. There are more substitutes for IBM personal computers than there are for personal computers. Therefore, IBM personal computers have the more elastic demand.

TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

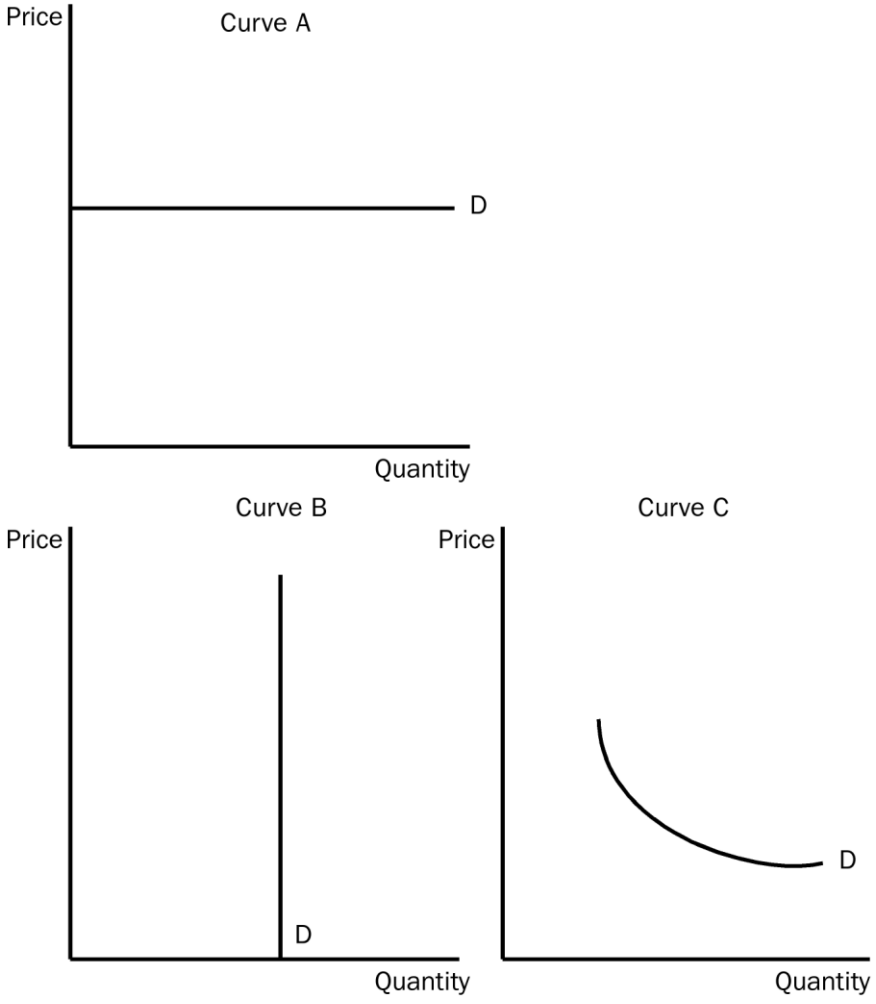
148. When the price of PC's was $2,000, consumers bought 500. When the price fell to $1,200, consumers bought 1,500. What was the price elasticity of demand between these two prices, calculated with the midpoint method?

ANSWER: The midpoint method gives the percentage change in quantity demanded as 100, and the percentage change in price as 50. Therefore the elasticity of demand is 2.

TYPE: S KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

149. Sketch three demand curves. Curve A should be perfectly elastic, curve B should be perfectly inelastic, and curve C should be unit elastic.

ANSWER:



TYPE: S KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M

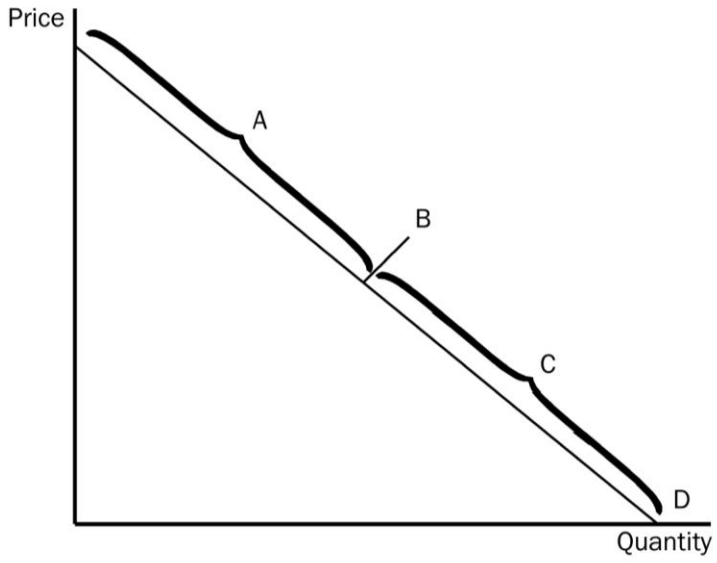
150. You are a Ford dealer, and you know that the price elasticity of demand for Ford cars is 1.5. What will happen to your total revenue from Ford car sales if you raise your prices?

ANSWER: Because price elasticity of demand for Fords is greater than 1, an increase in price will reduce total revenue.

TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

151. If two demand curves with different slopes pass through the same point, which demand curve will have the greater price elasticity of demand if the price falls from that point?
ANSWER: The curve with the smaller slope will have the larger elasticity.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

152. Use the graph shown to answer the following questions. Put the correct letter in the blank.



a. The elastic section of the graph is represented by section _____.
b. The inelastic section of the graph is represented by section _____.
c. The unit elastic section of the graph is represented by section _____.
d. The portion of the graph in which a decrease in price would cause total revenue to fall would be _____.
e. The portion of the graph in which a decrease in price would cause total revenue to rise would be _____.
f. The portion of the graph in which a decrease in price would not cause a change in total revenue would be _____.
g. The section of the graph in which total revenue would be at a maximum would be _____.
h. The section of the graph in which elasticity is greater than 1 is _____.
i. The section of the graph in which elasticity is equal to 1 is _____.
j. The section of the graph in which elasticity is less than 1 is _____.

ANSWER: a. A
b. C
c. B
d. C
e. A
f. B
g. B
h. A
i. B
j. C

TYPE: S KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y GRAPH:

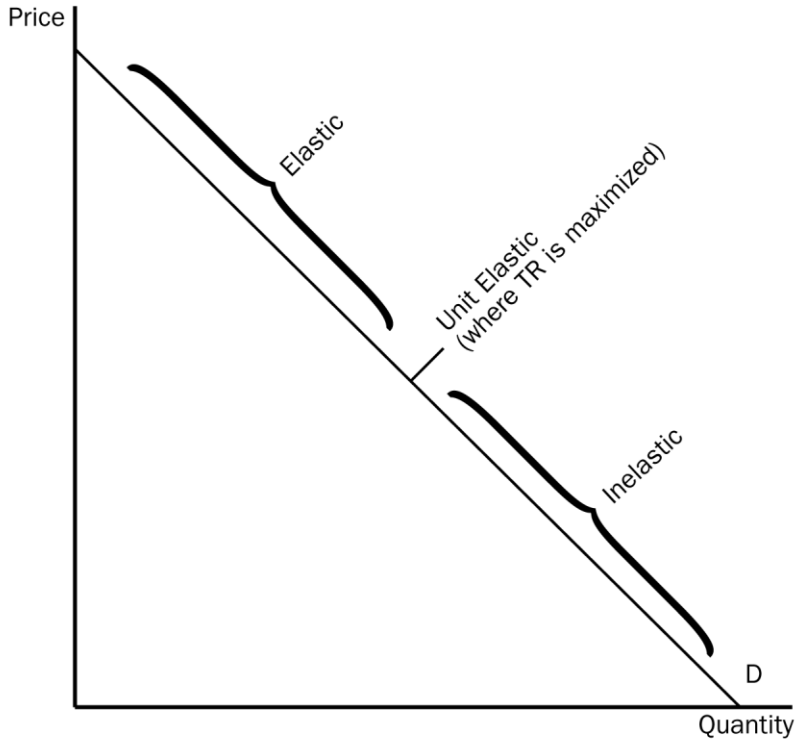
153. List the following goods in order of increasing price elasticity of demand: Coca-Cola, beverages, cola drinks, soft drinks.

ANSWER: In order of increasing price elasticity of demand, the list is: beverages, soft drinks, cola drinks, Coca-Cola. The ranking is based on how narrowly defined the market is.

TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

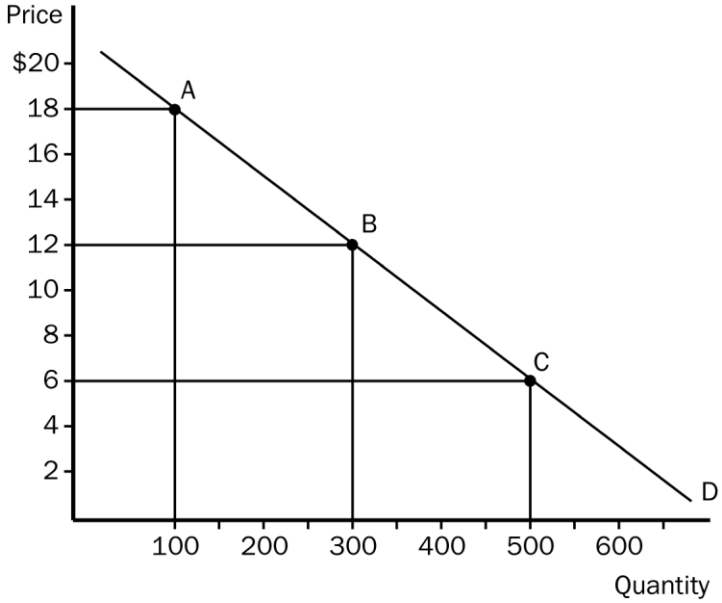
154. Draw a linear, downward-sloping demand curve on a graph. Identify the part of the demand curve which is elastic, the part which is inelastic, and the part which is unit elastic. At what price on a linear demand curve will total revenue be highest?

ANSWER: The student should identify the top half of the demand curve as elastic, the bottom half as inelastic, and the midpoint as unit elastic. Total revenue is maximized at the midpoint of a linear demand curve.



TYPE: S KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y

155. Using the midpoint method, compute the elasticity of demand between points A and B. Is this portion of the curve elastic or inelastic? Interpret your answer with regard to price and quantity demanded. Now compute the elasticity of demand between points B and C. Is this portion of the curve elastic or inelastic?



ANSWER: In the section of the demand curve from A to B, the elasticity of demand would be 2.5. This would be an elastic portion of the curve. This would mean that for every 1 percent change in price, quantity demanded would change by 2.5 percent.

In the section of the demand curve from B to C, the elasticity of demand would be .75. This would be an inelastic portion of the curve. This would mean that for every 1 percent change in price, quantity demanded would change by .75 percent.

TYPE: S KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y GRAPH:

156. Suppose you are the manager of a theater. You currently charge the same admission price to all customers, regardless of age. You hire an economist to determine the price elasticity of demand for admissions by age, and he tells you that at the current price, demand by adults is inelastic and demand by children is elastic. If you want to increase your total revenue by adjusting admission prices, how should they be adjusted?

ANSWER: Since the demand for admissions by adults is inelastic, if you raise the price of admission, your total revenue will increase from that group. However, since the demand by children is elastic, raising the admission price will reduce total revenue from that group. The solution is a 2-tier price system, with higher prices for adults and lower prices for children.

TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

157. You have just been hired by Rainbow Crayons, Inc. as a marketing specialist. The CEO comes to you for advice on how to raise revenue. She wants to know if the company should lower product prices or raise product prices to increase revenue. What information must you know? If you have this information, what do you advise?

ANSWER: The first thing you need to know is the elasticity of demand for your product. If you find that the elasticity of demand for crayons is inelastic, then you would recommend that a price increase would be in order for total revenue to rise. If you find that demand is elastic, you should recommend a price decrease for total revenue to rise.

TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

158. You are an economist working for the telephone company. You discover that demand for phone calls during business hours is inelastic, and demand for phone calls during evening hours is elastic. How could your company use this information to increase its total revenue?
ANSWER: In order to increase total revenue, the telephone company should increase the cost of phone calls during business hours, and decrease the cost of phone calls during evening hours.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

159. The president of the university is concerned about increasing operating costs, and decides to raise tuition fees in an attempt to increase university revenue. Do you think the rise in tuition fees will accomplish the president's goal?
ANSWER: Whether the increase in fees will cause university revenue to increase depends on the price elasticity of demand for courses. If demand for courses is inelastic, the tuition increase will increase revenue. However, if the demand for courses is elastic, the tuition increase will reduce university revenue.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

160. Define income elasticity of demand. What does it measure? What does it mean if the income elasticity is positive; negative; small; large?
ANSWER: The income elasticity of demand is defined as the percentage change in quantity demanded divided by the percentage change in income. It measures how the quantity demanded changes as income changes. Normal goods have positive income elasticities. Inferior goods have negative income elasticities. Necessities tend to have small income elasticities and luxuries tend to have large income elasticities.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

161. Define cross-price elasticity of demand. What does it measure? What does it means if the cross-price elasticity is negative; positive?
ANSWER: Cross-price elasticity of demand is defined as the percentage change in the quantity demanded of good 1 divided by the percentage change in the price of good 2. It measures how the quantity demanded of one good changes as the price of another good changes. If two goods are substitute goods, the cross-price elasticity would be positive. If two goods are complement goods, the cross-price elasticity would be negative.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

162. When the Shaffers have a monthly income of $4,000, they would usually eat out 8 times a month. Now that the couple makes $4,500 a month, they eat out 10 times a month. Compute the couple's income elasticity of demand using the midpoint method. Explain your answer. (Is a restaurant meal a normal or inferior good to the couple?)
ANSWER: The income elasticity of demand for the Shaffers is 1.89. Since the income elasticity of demand is positive, this would be interpreted as a normal good.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

163. Recently, in Smalltown, the price of Twinkies fell from $.80 to $.70. As a result, the quantity demanded of Ho-Ho's decreased from 120 to 100. What would be the appropriate elasticity to compute? Using the midpoint method, compute this elasticity. What does your answer tell you?
ANSWER: The appropriate elasticity to compute would be cross-price elasticity. The cross-price elasticity for this example would be 1.36. The two goods are substitutes because the cross-price elasticity is positive.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

164. What is the price elasticity of supply? What are the determinants of the price elasticity of supply, and how does each affect elasticity?

ANSWER: The price elasticity of supply measures how much the quantity supplied responds to changes in the price, and is equal to the percentage change in quantity supplied divided by the percentage change in price. If elasticity is greater than 1, the supply curve is elastic; if less than 1, the supply curve is inelastic; and if equal to 1, the supply curve is unit elastic.

Price elasticity of supply depends on the flexibility of sellers to changes in price. For resources like land of a specific type and location, there is practically no flexibility. For manufactured products, there is greater flexibility. In most markets, the time period over which supply is measured is a key determinant. Over short time periods, supply curves tend to be less elastic, and over longer periods, supply curves tend to be more elastic.

TYPE: S KEY1: C SECTION: 2 OBJECTIVE: 3 RANDOM: Y

165. At a price of $0.80 per pound, 1,000 pounds of oranges are supplied, and at a price of $1.20 per pound, 3,000 pounds of oranges are supplied. What is the price elasticity of supply of oranges between these two prices, using the midpoint formula?

ANSWER: The percentage change in quantity supplied is 100, and the percentage change in price is 40. Therefore, the price elasticity of supply is 2.5.

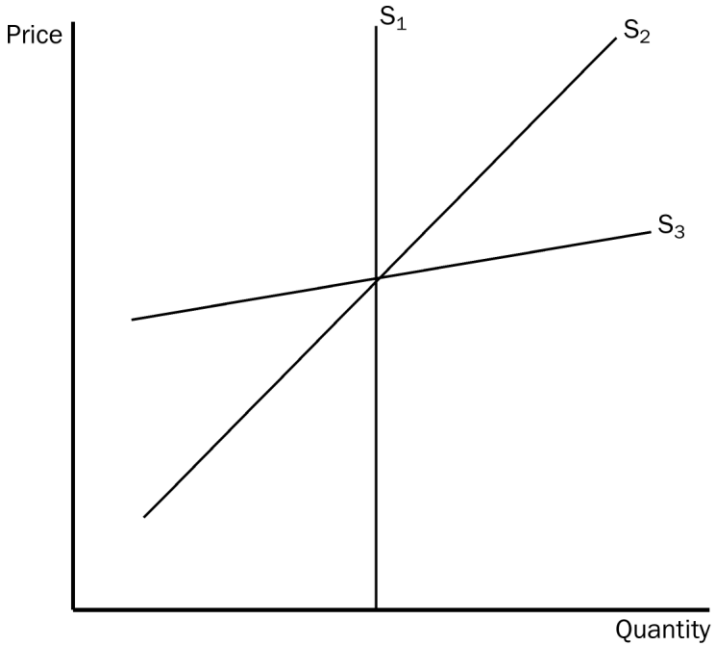
TYPE: S KEY1: E SECTION: 2 OBJECTIVE: 4 RANDOM: Y

166. Why do farmers suffer declines in their total revenues when they become more productive as a group?

ANSWER: Increases in productivity cause the supply curve to shift to the right, lowering the equilibrium market price. Since demand for agricultural products is inelastic, a reduction in price also reduces total revenue.

TYPE: S KEY1: C SECTION: 3 OBJECTIVE: 5 RANDOM: Y

167. On the graph shown, rate the supply curves from shortest time frame to longest time frame. Which curve is the most inelastic; the most elastic?



ANSWER: From shortest time frame to longest would be in this order: S_1, S_2, S_3. S_1 is the most inelastic - it is perfectly inelastic. S_3 is the most elastic supply curve.
TYPE: S KEY1: C SECTION: 2 OBJECTIVE: 4 RANDOM: Y

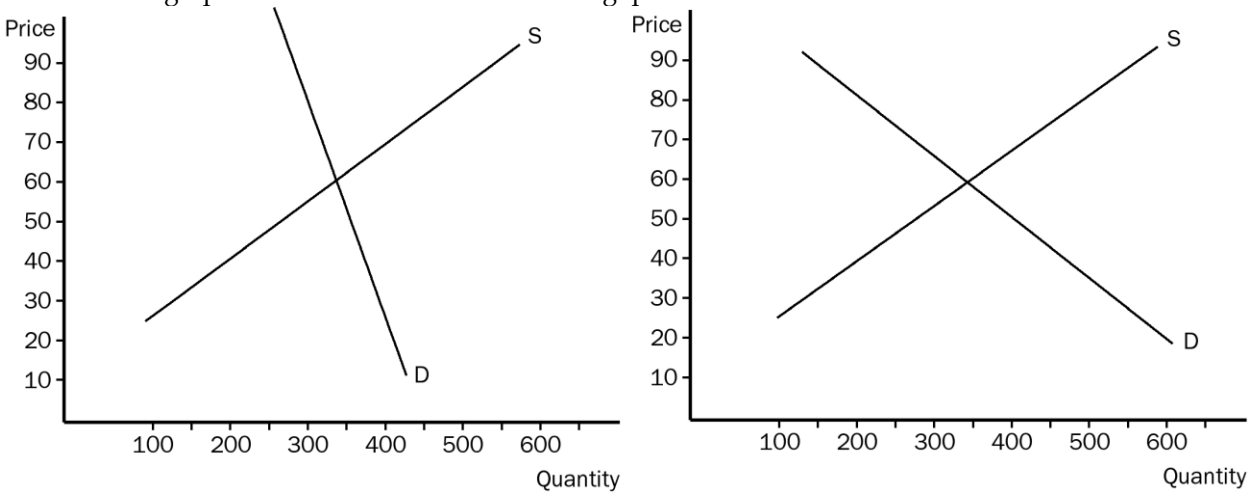
168. Jack, a fisherman, goes out with a boat and a net early each morning. At 7:00 a.m., Jack takes his day's catch to the fish market and sells it at the market price. As a result of new information about the beneficial effects on health of a fish-rich diet, the demand for fish increases. How will Jack's supply of fish respond to the increased demand and higher price for his product in the short run and in the long run?

ANSWER: In the very short run, a period of one day, Jack cannot respond at all to the increased price of fish, since his supply is perfectly inelastic. In the short run, Jack can respond to the higher price by using more labor and nets to catch more fish. In the long run, Jack can also add more boats to the production process and catch even more fish. The longer the time horizon, the more elastic will be Jack's supply of fish.
TYPE: S KEY1: C SECTION: 2 OBJECTIVE: 4 RANDOM: Y

169. The Conservation Reserve Program pays farmers to take out of production highly erodible land. What is the effect of this program on farm income, and on the well-being of consumers?

ANSWER: The program will affect farm income in two ways. First, farmers receive income from taking the land out of production, but they lose the income from the output which would have been produced on that land. Second, because the supply of agricultural products will be reduced as a result of this program, agricultural commodity prices will increase. Because the demand for agricultural products is inelastic, the increase in price will also increase total revenue to farmers. Consumers will be worse off as a result of the program, because they will have to pay higher prices for agricultural products.
TYPE: S KEY1: C SECTION: 3 OBJECTIVE: 5 RANDOM: Y

170. Use the graphs shown to answer the following questions.



a. Determine equilibrium price and quantity for each graph.
b. Given demand and supply, what would total revenue be for each graph?
c. Assume that supply shifts to the left on both graphs by 100, raising price. Given the new equilibrium price and equilibrium quantity, what would total revenue be on each graph?
d. What do your answers to C tell you about the relationship between elasticity of demand and total revenue?

ANSWER: a. The equilibrium price would be $60 and the equilibrium quantity would be 350.
b. Total revenue for both graphs would be $21,000 ($60 X 350).
c. On graph A, equilibrium price is now $72 and equilibrium quantity is 325. Total revenue for graph A would now be $23,400. On graph B, equilibrium price is now $65 and equilibrium quantity is now 300. Total revenue for graph B would now be $19,500. (See the graphs for this answer.)
d. The answer to C shows the expected outcome. Since the demand curve in graph A is inelastic, we would expect that when price increased, total revenue would increase (from $21,000 to $23,400). On graph B, since the demand is elastic, we would expect an increase in price to lower total revenue (from $21,000 to $19,500).
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 1

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

2 ANSWER: c. how responsive buyers are to a change in price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

3 ANSWER: a. how much buyers respond to changes in the price of the good.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

4 ANSWER: b. analyze supply and demand with greater precision.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

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

6 ANSWER: d. if the quantity demanded changes only slightly when the price of the good changes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

7 ANSWER: b. inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

8 ANSWER: a. elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

9 ANSWER: a. elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

10 ANSWER: b. inelastic
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

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

12 ANSWER: a. other flavors of ice cream are almost perfect substitutes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

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

14 ANSWER: c. buyers tend to be much more sensitive to a change in price when given more time to react.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

15 ANSWER: d. All of the above are correct.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

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

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

18 ANSWER: d. .64.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y

19 ANSWER: c. 40 percent decrease in the quantity demanded.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y

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

21 ANSWER: c. elasticity is greater than 1.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

22 ANSWER: a. elasticity is less than 1.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

23 ANSWER: b. elasticity is equal to 1.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

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

25 ANSWER: c. the unit elastic section of the demand curve.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

26 ANSWER: b. the inelastic section of the demand curve.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

27 ANSWER: d. 2.5
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

28 ANSWER: b. 0.75
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

29 ANSWER: b. quantity demanded changes proportionately less than the price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

30 ANSWER: c. quantity demanded changes by the same percent as the price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

31 ANSWER: c. flatter
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

32 ANSWER: b. 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

33 ANSWER: b. horizontal.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

34 ANSWER: d. buyers purchase the same amount when the price rises or falls.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

35 ANSWER: a. Alice's demand for banana splits is perfectly inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

36 ANSWER: b. the price multiplied by the quantity.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

37 ANSWER: c. It first increases, then decreases.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

38 ANSWER: c. at the midpoint of the demand curve.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

39 ANSWER: c. unit elastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

40 ANSWER: a. D_1
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M INSTRUCTION: 1 RANDOM: N

41 ANSWER: c. D_3
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M INSTRUCTION: 1 RANDOM: N

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

43 ANSWER: a. B + D.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M RANDOM: N

44 ANSWER: b. A + B.
TYPE: M KEY1: G SECTION: 1 OBJECTIVE: 2 GRAPH FORMAT: M RANDOM: N

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

46 ANSWER: a. decrease the price of your jewelry boxes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

47 ANSWER: b. an increase in price would decrease total revenue because the decrease in quantity demanded is greater than the increase in price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

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

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

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

51 ANSWER: a. the demand for candy bars in this price range is elastic.
TYPE: M KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

52 ANSWER: b. Sheila considers DVD movies to be a normal good.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

53 ANSWER: a. how the quantity demanded changes as consumer income changes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

54 ANSWER: a. diamonds
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

55 ANSWER: c. negative, so Joan considers hamburger to be an inferior good.
TYPE: M KEY1: D SECTION: 4 OBJECTIVE: 5 RANDOM: Y

56 ANSWER: c. an inferior good.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

57 ANSWER: c. an inferior good.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

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

59 ANSWER: a. negative and therefore the good is an inferior good.
TYPE: M KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

60 ANSWER: c. -1.33
TYPE: M KEY1: T SECTION: 1 OBJECTIVE: 2 INSTRUCTION: 1 RANDOM: N

61 ANSWER: a. a normal good.
TYPE: M KEY1: T SECTION: 1 OBJECTIVE: 2 INSTRUCTION: 1 RANDOM: N

62 ANSWER: b. an inferior good.
TYPE: M KEY1: T SECTION: 1 OBJECTIVE: 2 INSTRUCTION: 1 RANDOM: N

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

64 ANSWER: a. the percentage change in quantity demanded of good 1 divided by the percentage change in the price of good 2.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

65 ANSWER: c. complements.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

66 ANSWER: d. substitutes.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

67 ANSWER: a. small income elasticities because consumers, regardless of their incomes, choose to buy these goods.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

68 ANSWER: c. income elastic because buyers generally feel that they can do without it.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

69 ANSWER: b. the demand for gasoline is price inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

70 ANSWER: a. an 18 percent decrease in the quantity of basketballs demanded.
TYPE: M KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

71 ANSWER: d. they are assuming that the demand for university education is inelastic.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

72 ANSWER: b. how much the quantity supplied responds to changes in the price of the good.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

73 ANSWER: b. how responsive sellers are to a change in price.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

74 ANSWER: a. elastic.
TYPE: M KEY1: E SECTION: 2 OBJECTIVE: 3 RANDOM: Y

75 ANSWER: a. sellers are considered to be relatively price sensitive.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

76 ANSWER: c. supply is said to be inelastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

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

78 ANSWER: d. 1.86
TYPE: M KEY1: E SECTION: 2 OBJECTIVE: 3 RANDOM: Y

79 ANSWER: a. can respond substantially to a change in price.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

80 ANSWER: a. the supply is relatively elastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

81 ANSWER: a. supply must be perfectly inelastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

82 ANSWER: d. Nothing can be said about price elasticity of supply from the information given.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

83 ANSWER: a. supply is elastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

84 ANSWER: d. If the demand for wheat is elastic.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

85 ANSWER: b. decrease the total revenue of wheat farmers.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

86 ANSWER: a. wheat farmers would increase their revenue.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

87 ANSWER: d. The agreement OPEC members signed allowed each country to produce as much oil as each wanted.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

88 ANSWER: c. Government drug programs are more lenient now with drug offenders than in the 1980s.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

89 ANSWER: b. there will be 2,000 empty seats.
TYPE: M KEY1: T SECTION: 3 OBJECTIVE: 4 INSTRUCTION: 2 RANDOM: N

90 ANSWER: a. is perfectly inelastic.
TYPE: M KEY1: T SECTION: 3 OBJECTIVE: 4 INSTRUCTION: 2 RANDOM: N

91 ANSWER: b. price inelastic
TYPE: M KEY1: T SECTION: 3 OBJECTIVE: 4 INSTRUCTION: 2 RANDOM: N

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

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

94 ANSWER: c. one year.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

95 ANSWER: d. you could not determine what to do with rental price until you determine whether demand is elastic or inelastic.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

96 ANSWER: a. S_1
TYPE: M KEY1: G SECTION: 2 OBJECTIVE: 4 GRAPH FORMAT: M INSTRUCTION: 2 RANDOM: N

97 ANSWER: c. S_3
TYPE: M KEY1: G SECTION: 2 OBJECTIVE: 4 GRAPH FORMAT: M INSTRUCTION: 2 RANDOM: N

98 ANSWER: b. 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: Y

99 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

100 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

101 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

102 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

103 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

104 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

105 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

106 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

107 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

108 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

109 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

110 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

111 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

112 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

113 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

114 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

115 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

116 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

117 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

118 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

119 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

120 ANSWER:
T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

121 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

122 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

123 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

124 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

125 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

126 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

127 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

128 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

129 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

130 ANSWER: F
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

131 ANSWER: T
TYPE: T KEY1: D SECTION: 1 OBJECTIVE: 2 RANDOM: Y

132 ANSWER: T
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

133 ANSWER: F
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

134 ANSWER: T
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

135 ANSWER: F
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

136 ANSWER: T
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

137 ANSWER: F
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 4 RANDOM: Y

138 ANSWER: T
TYPE: T KEY1: D SECTION: 2 OBJECTIVE: 3 RANDOM: Y

139 ANSWER: F
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

140 ANSWER: T
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

141 ANSWER: T
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

142 ANSWER: F
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

143 ANSWER: T
TYPE: T KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y

144 ANSWER: Elasticity is a measure of relative responsiveness of supply or demand to changes in one of the determinants of supply or demand. Economists use the concept in order to analyze the percentage change in supply or demand that occurs as a result of a 1 percent change in a determinant. It allows economists to conduct a quantitative analysis of supply and demand rather than simply a qualitative analysis.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 1 RANDOM: Y

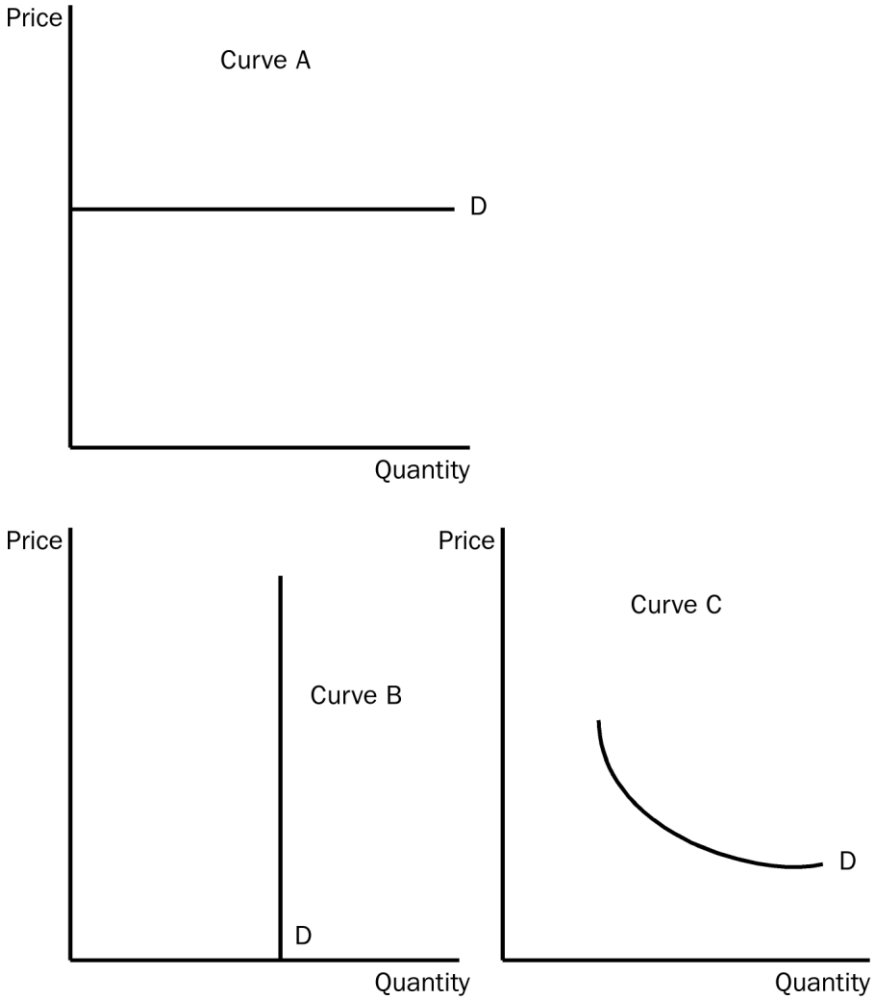
145 ANSWER: The perceptive student will note that slope measures the ratio of absolute changes, and therefore is sensitive to units of measurement, while the elasticity measures ratios of percentage changes, and therefore is a pure number, independent of units of measurement.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

146 ANSWER: The price elasticity of demand is a measure of how much the quantity demanded responds to a change in price. It is defined as the percentage change in quantity demanded divided by the percentage change in price. If the elasticity is greater than 1, the good is said to be elastic and if elasticity is less than one the good is said to be inelastic. If elasticity is exactly equal to 1, the good is unitary elastic. Determinants of price elasticity of demand include:
(1) Whether the good is a luxury or a necessity. Luxuries tend to have higher price elasticities of demand and necessities tend to have small price elasticities of demand.
(2) Availability of close substitutes. Goods with close substitutes tend to have more elastic demand than do goods without close substitutes.
(3) Definition of the market. Narrowly defined markets tend to have more elastic demand, and broadly defined markets tend to have less elastic demand.
(4) Time horizon. The longer the time horizon over which demand is measured, the greater is the ability of buyers of the good to find substitutes for products whose prices have risen. Therefore, the longer the time horizon, *ceteris paribus*, the larger is the elasticity of demand.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

147 ANSWER:
a. Diamonds are luxuries, and water is a necessity. Therefore, diamonds have the more elastic demand.
b. Insulin has no close substitutes, but decongestant spray does. Therefore, nasal decongestant spray has the more elastic demand.

c. Breakfast cereal has more substitutes than does food in general. Therefore, breakfast cereal has the more elastic demand.
d. The longer the time period, the more elastic demand. Therefore, gasoline over the course of a year has the more elastic demand.
e. There are more substitutes for IBM personal computers than there are for personal computers. Therefore, IBM personal computers have the more elastic demand.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y
148 ANSWER: The midpoint method gives the percentage change in quantity demanded as 100, and the percentage change in price as 50. Therefore the elasticity of demand is 2.
TYPE: S KEY1: E SECTION: 1 OBJECTIVE: 2 RANDOM: Y

149 ANSWER:



[Insert figure 5-9 here.]

150 ANSWER: Because price elasticity of demand for Fords is greater than 1, an increase in price will reduce total revenue.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

151 ANSWER: The curve with the smaller slope will have the larger elasticity.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

152 ANSWER:

a. A
b. C
c. B
d. C
e. A
f. B

g. B
h. A
i. B
j. C
TYPE: S KEY1: G SECTION: 1 OBJECTIVE: 2 RANDOM: Y GRAPH:

153 ANSWER: In order of increasing price elasticity of demand, the list is: beverages, soft drinks, cola drinks, Coca-Cola. The ranking is based on how narrowly defined the market is.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

154 ANSWER: The student should identify the top half of the demand curve as elastic, the bottom half as inelastic, and the midpoint as unit elastic. Total revenue is maximized at the midpoint of a linear demand curve.

155 ANSWER:
In the section of the demand curve from A to B, the elasticity of demand would be 2.5. This would be an elastic portion of the curve. This would mean that for every 1 percent change in price, quantity demanded would change by 2.5 percent.
In the section of the demand curve from B to C, the elasticity of demand would be .75. This would be an inelastic portion of the curve. This would mean that for every 1 percent change in price, quantity demanded would change by .75 percent.

156 ANSWER: Since the demand for admissions by adults is inelastic, if you raise the price of admission, your total revenue will increase from that group. However, since the demand by children is elastic, raising the admission price will reduce total revenue from that group. The solution is a 2-tier price system, with higher prices for adults and lower prices for children.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

157 ANSWER: The first thing you need to know is the elasticity of demand for your product. If you find that the elasticity of demand for crayons is inelastic, then you would recommend that a price increase would be in order for total revenue to rise. If you find that demand is elastic, you should recommend a price decrease for total revenue to rise.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

158 ANSWER: In order to increase total revenue, the telephone company should increase the cost of phone calls during business hours, and decrease the cost of phone calls during evening hours.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

159 ANSWER: Whether the increase in fees will cause university revenue to increase depends on the price elasticity of demand for courses. If demand for courses is inelastic, the tuition increase will increase revenue. However, if the demand for courses is elastic, the tuition increase will reduce university revenue.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

160 ANSWER: The income elasticity of demand is defined as the percentage change in quantity demanded divided by the percentage change in income. It measures how the quantity demanded changes as income changes. Normal goods have positive income elasticities. Inferior goods have negative income elasticities. Necessities tend to have small income elasticities and luxuries tend to have large income elasticities.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

161 ANSWER: Cross-price elasticity of demand is defined as the percentage change in the quantity demanded of good 1 divided by the percentage change in the price of good 2. It measures how the quantity demanded of one good changes as the price of another good changes. If two goods are substitute goods, the cross-price elasticity would be positive. If two goods are complement goods, the cross-price elasticity would be negative.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

162 ANSWER: The income elasticity of demand for the Shaffers is 1.89. Since the income elasticity of demand is positive, this would be interpreted as a normal good.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

163 ANSWER: The appropriate elasticity to compute would be cross-price elasticity. The cross-price elasticity for this example would be 1.36.The two goods are substitutes because the cross-price elasticity is positive.
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 2 RANDOM: Y

164 ANSWER: The price elasticity of supply measures how much the quantity supplied responds to changes in the price, and is equal to the percentage change in quantity supplied divided by the percentage change in price. If elasticity is greater than 1, the supply curve is elastic; if less than 1, the supply curve is inelastic; and if equal to 1, the supply curve is unit elastic.
Price elasticity of supply depends on the flexibility of sellers to changes in price. For resources like land of a specific type and location, there is practically no flexibility. For manufactured products, there is greater flexibility. In most markets, the time period over which supply is measured is a key determinant. Over short time periods, supply curves tend to be less elastic, and over longer periods, supply curves tend to be more elastic.

165 ANSWER: The percentage change in quantity supplied is 100, and the percentage change in price is 40. Therefore, the price elasticity of supply is 2.5.
TYPE: S KEY1: E SECTION: 2 OBJECTIVE: 4 RANDOM: Y

166 ANSWER: Increases in productivity cause the supply curve to shift to the right, lowering the equilibrium market price. Since demand for agricultural products is inelastic, a reduction in price also reduces total revenue.
TYPE: S KEY1: C SECTION: 3 OBJECTIVE: 5 RANDOM: Y

167 ANSWER:
From shortest time frame to longest would be in this order: S_1, S_2, S_3. S_1 is the most inelastic - it is perfectly inelastic. S_3 is the most elastic supply curve.
TYPE: S KEY1: C SECTION: 2 OBJECTIVE: 4 RANDOM: Y

168 ANSWER: In the very short run, a period of one day, Jack cannot respond at all to the increased price of fish, since his supply is perfectly inelastic. In the short run, Jack can respond to the higher price by using more labor and nets to catch more fish. In the long run, Jack can also add more boats to the production process and catch even more fish. The longer the time horizon, the more elastic will be Jack's supply of fish.
TYPE: S KEY1: C SECTION: 2 OBJECTIVE: 4 RANDOM: Y

169 ANSWER: The program will affect farm income in two ways. First, farmers receive income from taking the land out of production, but they lose the income from the output which would have been produced on that land. Second, because the supply of agricultural products will be reduced as a result of this program, agricultural commodity prices will increase. Because the demand for agricultural products is inelastic, the increase in price will also increase total revenue to farmers. Consumers will be worse off as a result of the program, because they will have to pay higher prices for agricultural products.
TYPE: S KEY1: C SECTION: 3 OBJECTIVE: 5 RANDOM: Y

170 ANSWER:
a. The equilibrium price would be $60 and the equilibrium quantity would be 350.
b. Total revenue for both graphs would be $21,000 ($60 X 350).
c. On graph A, equilibrium price is now $72 and equilibrium quantity is 325. Total revenue for graph A would now be $23,400. On graph B, equilibrium price is now $65 and equilibrium quantity is now 300. Total revenue for graph B would now be $19,500. (See the graphs for this answer.)
d. The answer to C shows the expected outcome. Since the demand curve in graph A is inelastic, we would expect that when price increased, total revenue would increase (from $21,000 to $23,400). On graph B, since the demand is elastic, we would expect an increase in price to lower total revenue (from $21,000 to $19,500).
TYPE: S KEY1: C SECTION: 1 OBJECTIVE: 1