

**CHAPTER 3**  
**Individual Markets: Demand and Supply**

<b>Topic</b>	<b>Question numbers</b>
1. Demand and demand curve	1-18
2. Determinants of demand	19-57
3. Change in demand versus change in quantity demanded	58-69
4. Supply and supply curve	70-77
5. Determinants of supply	78-87
6. Equilibrium; rationing function	88-121
7. Changes in equilibrium price and quantity	122-169
Last Word	170-173
True-False	174-186

**Multiple Choice Questions**

**Demand and demand curve**

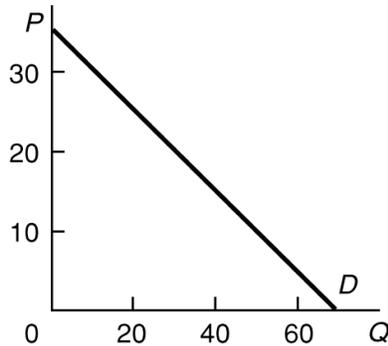
1. A market:
  - A) reflects upsloping demand and downsloping supply curves.
  - B) entails the exchange of goods, but not services.
  - C) is an institution that brings together buyers and sellers.
  - D) always entails face-to-face contact between buyer and seller.
  
2. Markets explained on the basis of supply and demand:
  - A) assume many buyers and many sellers of a standardized product.
  - B) assume market power so that buyers and sellers bargain with one another.
  - C) have no counterpart in the real-world economy.
  - D) are approximated by markets in which a single seller determines price.
  
3. The law of demand states that:
  - A) price and quantity demanded are inversely related.
  - B) the larger the number of buyers in a market, the lower will be product price.
  - C) price and quantity demanded are directly related.
  - D) consumers will buy more of a product at high prices than at low prices.
  
4. Graphically, the market demand curve is:
  - A) steeper than any individual demand curve comprising it.
  - B) greater than the sum of the individual demand curves.
  - C) the horizontal sum of individual demand curves.
  - D) the vertical sum of individual demand curves.
  
5. The demand curve shows the relationship between:
  - A) money income and quantity demanded.
  - B) price and production costs.
  - C) price and quantity demanded.

- D) consumer tastes and the quantity demanded.
6. Economists use the term "demand" to refer to:
- A) a particular price-quantity combination on a stable demand curve.
  - B) the total amount spent on a particular commodity over a stipulated time period.
  - C) an upsloping line on a graph that relates consumer purchases and product price.
  - D) a schedule of various combinations of market prices and amounts demanded.
7. The relationship between quantity supplied and price is \_\_\_\_\_ and the relationship between quantity demanded and price is \_\_\_\_\_.
- A) direct, inverse
  - B) inverse, direct
  - C) inverse, inverse
  - D) direct, direct
8. When the price of a product increases, a consumer is able to buy less of it with a given money income. This describes:
- A) the cost effect.
  - B) the inflationary effect.
  - C) the income effect.
  - D) the substitution effect.
9. A demand curve:
- A) shows the relationship between price and quantity supplied.
  - B) indicates the quantity demanded at each price in a series of prices.
  - C) graphs as an upsloping line.
  - D) shows the relationship between income and spending.
10. In presenting the idea of a demand curve economists presume that the most important variable in determining the quantity demanded is:
- A) the price of the product itself.
  - B) consumer income.
  - C) the prices of related goods.
  - D) consumer tastes.
11. An increase in the price of a product will reduce the amount of it purchased because:
- A) supply curves are upsloping.
  - B) the higher price means that real incomes have risen.
  - C) consumers will substitute other products for the one whose price has risen.
  - D) consumers substitute relatively high-priced for relatively low-priced products.
12. The income and substitution effects account for:
- A) the upward sloping supply curve.
  - B) the downward sloping demand curve.
  - C) movements along a given supply curve.
  - D) the "other things equal" assumption.
13. "When the price of a product rises, consumers shift their purchases to other products whose prices are now relatively lower." This statement describes:

- A) an inferior good.
- B) the rationing function of prices.
- C) the substitution effect.
- D) the income effect.

14. "When the price of a product falls, the purchasing power of our money income rises and thus permits consumers to purchase more of the product." This statement describes:
- A) an inferior good.
  - B) the rationing function of prices.
  - C) the substitution effect.
  - D) the income effect.

15.



(Advanced analysis) The equation for the demand curve in the above diagram:

- A) is  $P = 70 - Q$ .
  - B) is  $P = 35 - 2Q$ .
  - C) is  $P = 35 - .5Q$ .
  - D) cannot be determined from the information given.
16. When product prices change, consumers are inclined to purchase larger amounts of the now cheaper products and less of the now more expensive products. This describes:
- A) the cost effect.
  - B) the price effect.
  - C) the income effect.
  - D) the substitution effect.
17. The construction of demand and supply curves assumes that the primary variable influencing decisions to produce and purchase goods is:
- A) price.
  - B) expectations.
  - C) preferences.
  - D) incomes.
18. One reason that the quantity of a good demanded increases when its price falls is that the:
- A) price decline shifts the supply curve to the left.
  - B) lower price shifts the demand curve to the left.
  - C) lower price shifts the demand curve to the right.
  - D) lower price increases the real incomes of buyers, enabling them to buy more.

## Determinants of demand

19. A recent study found that an increase in the Federal tax on beer (and thus an increase in the price of beer) would reduce the demand for marijuana. We can conclude that:
- A) beer and marijuana are substitute goods.
  - B) beer and marijuana are complementary goods.
  - C) beer is an inferior good.
  - D) marijuana is an inferior good.
20. In 2000 the demand for "Razor" two-wheel scooters greatly increased. This increase in demand might best be explained by:
- A) an increase in consumer income.
  - B) an increase in the price of a substitute good.
  - C) a change in consumer expectations.
  - D) a change in buyer tastes.
21. Which of the following will *not* cause the demand for product K to change?
- A) a change in the price of close-substitute product J
  - B) an increase in consumer incomes
  - C) a change in the price of K
  - D) a change in consumer tastes
22. Which of the following would *not* shift the demand curve for beef?
- A) a widely publicized study that indicates beef increases one's cholesterol
  - B) a reduction in the price of cattle feed
  - C) an effective advertising campaign by pork producers
  - D) a change in the incomes of beef consumers
23. In 2000 the price of oil rose dramatically, which in turn caused the price of natural gas to increase. This can best be explained by saying that oil and natural gas are:
- A) complementary goods and the higher price for oil increased the demand for natural gas.
  - B) substitute goods and the higher price for oil increased the demand for natural gas.
  - C) complementary goods and the higher price for oil decreased the supply of natural gas.
  - D) substitute goods and the higher price for oil decreased the supply of natural gas.
24. An economist for a bicycle company predicts that, other things equal, a rise in consumer incomes will increase the demand for bicycles. This prediction is based on the assumption that:
- A) there are many goods that are substitutes for bicycles.
  - B) there are many goods that are complementary to bicycles.
  - C) there are few goods that are substitutes for bicycles.
  - D) bicycles are normal goods.
25. A rightward shift in the demand curve for product C might be caused by:
- A) an increase in income if C is an inferior good.
  - B) a decrease in income if C is a normal good.
  - C) a decrease in the price of a product that is a close substitute for C.
  - D) a decrease in the price of a product that is complementary to C.

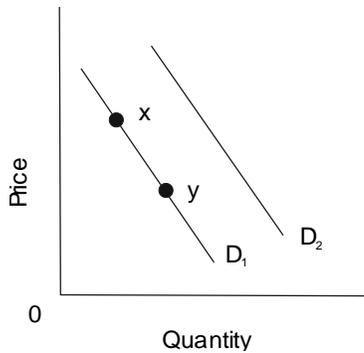
26. If two goods are complements:
- A) they are consumed independently.
  - B) an increase in the price of one will increase the demand for the other.
  - C) a decrease in the price of one will increase the demand for the other.
  - D) they are necessarily inferior goods.
27. Video cassette recorders and video cassettes are:
- A) complementary goods.
  - B) substitute goods.
  - C) independent goods.
  - D) inferior goods.
28. If the demand curve for product B shifts to the right as the price of product A declines, then:
- A) both A and B are inferior goods.
  - B) A is a superior good and B is an inferior good.
  - C) A is an inferior good and B is a superior good.
  - D) A and B are complementary goods.
29. If the price of product L increases, the demand curve for close-substitute product J will:
- A) shift downward toward the horizontal axis.
  - B) shift to the left.
  - C) shift to the right.
  - D) remain unchanged.
30. If the price of K declines, the demand curve for the complementary product J will:
- A) shift to the left.
  - B) decrease.
  - C) shift to the right.
  - D) remain unchanged.
31. Which of the following is most likely to be an inferior good?
- A) fur coats
  - B) Porsches
  - C) used clothing
  - D) steak
32. Which of the following statements is correct?
- A) An increase in the price of C will decrease the demand for complementary product D.
  - B) A decrease in income will decrease the demand for an inferior good.
  - C) An increase in income will reduce the demand for a normal good.
  - D) A decline in the price of X will increase the demand for substitute product Y.
33. A shift to the right in the demand curve for product A can be most reasonably explained by saying that:
- A) consumer incomes have declined and they now want to buy less of A at each possible price.
  - B) the price of A has increased and, as a result, consumers want to purchase less of it.
  - C) consumer preferences have changed in favor of A so that they now want to buy more at each possible price.
  - D) the price of A has declined and, as a result, consumers want to purchase more of it.

34. If L and M are complementary goods, an increase in the price of L will result in:
- A) an increase in the sales of L.
  - B) no change in either the price or sales of M.
  - C) a decrease in the sales of M.
  - D) an increase in the sales of M.
35. Which of the following will cause the demand curve for product A to shift to the left?
- A) population growth that causes an expansion in the number of persons consuming A
  - B) an increase in money income if A is a normal good
  - C) a decrease in the price of complementary product C
  - D) an increase in money income if A is an inferior good
36. If X is a normal good, a rise in money income will shift the:
- A) supply curve for X to the left.
  - B) supply curve for X to the right.
  - C) demand curve for X to the left.
  - D) demand curve for X to the right.
37. If Z is an inferior good, a decrease in money income will shift the:
- A) supply curve for Z to the left.
  - B) supply curve for Z to the right.
  - C) demand curve for Z to the left.
  - D) demand curve for Z to the right.
38. "In 1994 Ford sold 500,000 Escorts at an average price of \$7,200 per car; in 1995, 600,000 Escorts were sold at an average price of \$7,500 per car." These statements:
- A) suggest that the demand for Escorts decreased between 1994 and 1995.
  - B) imply that Escorts are an inferior good.
  - C) suggest that the demand for Escorts increased between 1994 and 1995.
  - D) constitute an exception to the law of demand in that they suggest an upsloping demand curve.
39. Other things equal, which of the following might shift the demand curve for gasoline to the left?
- A) the discovery of vast new oil reserves in Montana
  - B) the development of a low-cost electric automobile
  - C) an increase in the price of train and air transportation
  - D) a large decline in the price of automobiles
40. An increase in consumer incomes will:
- A) increase the demand for an inferior good.
  - B) increase the supply of an inferior good.
  - C) increase the demand for a normal good.
  - D) decrease the supply of a normal good.
41. Tennis rackets and ballpoint pens are:
- A) substitute goods.
  - B) complementary goods.
  - C) inferior goods.
  - D) independent goods.

42. The demand for most products varies directly with changes in consumer incomes. Such products are known as:
- A) complementary goods.
  - B) competitive goods.
  - C) inferior goods.
  - D) normal goods.
43. Assume the demand curve for product X shifts to the right. This might be caused by:
- A) a decline in income if X is an inferior good.
  - B) a decline in the price of Z if X and Z are substitute goods.
  - C) a change in consumer tastes that is unfavorable to X.
  - D) an increase in the price of Y if X and Y are complementary goods.
44. Cameras and film are:
- A) substitute goods.
  - B) complementary goods.
  - C) independent goods.
  - D) inferior goods.
45. A decrease in the price of cameras will:
- A) cause the demand curve for film to become vertical.
  - B) shift the demand curve for film to the right.
  - C) shift the demand curve for film to the left.
  - D) not affect the demand for film.
46. A normal good is one:
- A) whose amount demanded will increase as its price decreases.
  - B) whose amount demanded will increase as its price increases.
  - C) whose demand curve will shift leftward as incomes rise.
  - D) the consumption of which varies directly with incomes.
47. If the demand for a normal good (for example, steak) shifts to the left, the most likely reason is that:
- A) consumer incomes have fallen.
  - B) cattle production has declined.
  - C) the price of steak has risen.
  - D) the price of cattle feed has gone up.
48. If consumer incomes increase, the demand for product X:
- A) will necessarily remain unchanged.
  - B) may shift either to the right or left.
  - C) will necessarily shift to the right.
  - D) will necessarily shift to the left.
49. If products A and B are complements and the price of B decreases the:
- A) demand curves for both A and B will shift to the left.
  - B) amount of B purchased will increase, but the demand curve for A will not shift.
  - C) demand for A will increase and the amount of B demanded will increase.
  - D) demand for A will decline and the demand for B will increase.

50. If products C and D are close substitutes, an increase in the price of C will:
- A) tend to cause the price of D to fall.
  - B) shift the demand curve of C to the left and the demand curve of D to the right.
  - C) shift the demand curve of D to the right.
  - D) shift the demand curves of both products to the right.
51. In constructing a stable demand curve for product X:
- A) consumer preferences are allowed to vary.
  - B) the prices of other goods are assumed constant.
  - C) money incomes are allowed to vary.
  - D) the supply curve of product X is assumed to be fixed.
52. The demand curve for a product might shift as the result of a change in:
- A) consumer tastes.
  - B) consumer incomes.
  - C) the prices of related goods.
  - D) all of the above.
53. An inferior good is:
- A) one whose demand curve will shift rightward as incomes rise.
  - B) one whose price and quantity demanded vary directly.
  - C) one which has not been approved by the Federal Food and Drug Administration.
  - D) not accurately defined by any of the above statements.
54. Suppose an excise tax is imposed on product X. We would expect this tax to:
- A) increase the demand for complementary good Y and decrease the demand for substitute product Z.
  - B) decrease the demand for complementary good Y and increase the demand for substitute product Z.
  - C) increase the demands for both complementary good Y and substitute product Z.
  - D) decrease the demands for both complementary good Y and substitute product Z.
55. An increase in the price of product A will:
- A) reduce the demand for resources used in the production of A.
  - B) increase the demand for complementary product C.
  - C) increase the demand for substitute product B.
  - D) reduce the demand for substitute product B.

Use the following to answer questions 56-57:



56. A decrease in demand is depicted by a:
- A) move from point x to point y.
  - B) a shift from  $D_1$  to  $D_2$ .
  - C) shift from  $D_2$  to  $D_1$ .
  - D) move from point y to point x.
57. A decrease in quantity demanded (as distinct from a decrease in demand) is depicted by a:
- A) move from point x to point y.
  - B) a shift from  $D_1$  to  $D_2$ .
  - C) shift from  $D_2$  to  $D_1$ .
  - D) move from point y to point x.

#### Change in demand versus change in quantity demanded

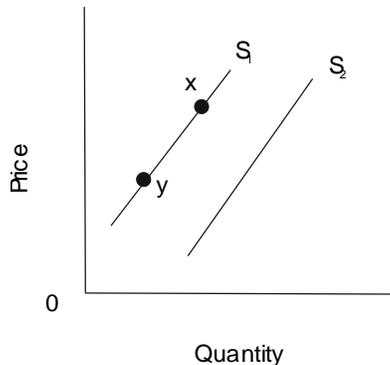
58. When an economist says that the demand for a product has increased, this means that:
- A) consumers are now willing to purchase more of this product at each possible price.
  - B) the product has become particularly scarce for some reason.
  - C) product price has fallen and as a consequence consumers are buying a larger quantity of the product.
  - D) the demand curve has shifted to the left.
59. "In the corn market, demand often exceeds supply and supply sometimes exceeds demand. The price of corn rises and falls in response to changes in supply and demand." In which of these two statements are the terms "demand" and "supply" being used correctly?
- A) in neither statement
  - B) in the second statement
  - C) in the first statement
  - D) in both statements
60. By an "increase in demand" we mean that :
- A) product price has fallen so consumers move down to a new point on the demand curve.
  - B) the quantity demanded at each price in a set of prices is greater.
  - C) the quantity demanded at each price in a set of prices is smaller.
  - D) a leftward shift of the demand curve has occurred.
61. The quantity demanded of a product increases as its price declines because:
- A) the lower price shifts the demand curve rightward.

- B) the lower price shifts the demand curve leftward.
  - C) the lower price results in an increase in supply.
  - D) the supply curve is upsloping.
62. The term "quantity demanded":
- A) refers to the entire series of prices and quantities that comprise the demand schedule.
  - B) refers to a situation in which the income and substitution effects do not apply.
  - C) refers to the amount of a product that will be purchased at some specific price.
  - D) means the same thing as "demand."
63. If consumers are willing to pay a higher price than previously for each level of output, we can say that the following has occurred:
- A) a decrease in demand.
  - B) an increase in demand.
  - C) a decrease in supply.
  - D) an increase in supply.
64. A decrease in the demand for recreational fishing boats might be caused by an increase in the:
- A) income of sports fishers.
  - B) price of outboard motors.
  - C) size and number of fish available.
  - D) price of sailing boats.
65. An "increase in demand" means that:
- A) given supply, the price of the product will decline.
  - B) the demand curve has shifted to the right.
  - C) price has declined and consumers therefore want to purchase more of the product.
  - D) the demand curve has shifted to the left.
66. Assume that the demand schedule for product C is downward-sloping. If the price of C falls from \$2.00 to \$1.75:
- A) a smaller quantity of C will be demanded.
  - B) a larger quantity of C will be demanded.
  - C) the demand for C will increase.
  - D) the demand for C will decrease.
67. An "increase in the quantity demanded" means that:
- A) given supply, the price of the product can be expected to decline.
  - B) price has declined and consumers therefore want to purchase more of the product.
  - C) the demand curve has shifted to the right.
  - D) the demand curve has shifted to the left.
68. An increase in product price will cause:
- A) quantity demanded to decrease.
  - B) quantity supplied to decrease.
  - C) quantity demanded to increase.
  - D) the supply curve to shift to the right.
69. In moving along a stable demand curve which of the following is *not* held constant?

- A) the price of the product for which the demand curve is relevant
- B) price expectations
- C) consumer incomes
- D) the prices of complementary goods

### Supply and supply curve

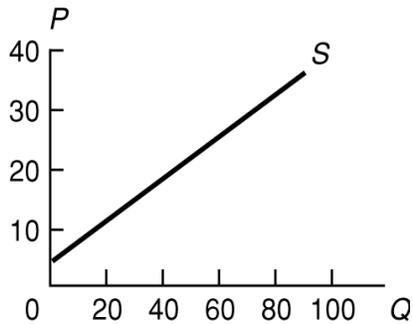
Use the following to answer questions 70-71:



70. A decrease in supply is depicted by a:
- A) move from point x to point y.
  - B) a shift from  $S_1$  to  $S_2$ .
  - C) shift from  $S_2$  to  $S_1$ .
  - D) move from point y to point x.
71. An increase in quantity supplied (as distinct from an increase in supply) is depicted by a:
- A) move from point y to point x.
  - B) a shift from  $S_1$  to  $S_2$ .
  - C) shift from  $S_2$  to  $S_1$ .
  - D) move from point x to point y.
72. The law of supply indicates that:
- A) producers will offer more of a product at high prices than they will at low prices.
  - B) the product supply curve is downsloping.
  - C) consumers will purchase less of a good at high prices than they will at low prices.
  - D) producers will offer more of a product at low prices than they will at high prices.
73. The law of supply:
- A) reflects the amounts that producers will want to offer at each price in a series of prices.
  - B) is reflected in a downsloping supply curve.
  - C) shows that the relationship between producer revenue and quantity supplied is negative.
  - D) reflects the income and substitution effects of a price change.
74. The upward slope of the supply curve reflects the:
- A) principle of specialization in production.

- B) law of supply.
- C) fact that price and quantity supplied are inversely related.
- D) law of diminishing marginal utility.

75.



Advanced analysis) The equation for the supply curve in the above diagram:

- A) is  $P = 5 + \frac{1}{3}Q$ .
  - B) is  $P = 5 + 2Q$ .
  - C) is  $P = 5 + 3Q$ .
  - D) is  $P = 5 - 3Q$ .
76. The supply curve shows the relationship between:
- A) price and quantity supplied.
  - B) production costs and the amount demanded.
  - C) total business revenues and quantity supplied.
  - D) physical inputs of resources and the resulting units of output.
77. A firm's supply curve is upsloping because:
- A) the expansion of production necessitates the use of qualitatively inferior inputs.
  - B) mass production economies are associated with larger levels of output.
  - C) consumers envision a positive relationship between price and quality.
  - D) beyond some point the production costs of additional units of output will rise.

### Determinants of supply

78. A leftward shift of a product supply curve might be caused by:
- A) an improvement in the relevant technique of production.
  - B) a decline in the prices of needed inputs.
  - C) an increase in consumer incomes.
  - D) some firms leaving an industry.
79. The location of the product supply curve depends on:
- A) production technology.
  - B) the number of buyers in the market.
  - C) the tastes of buyers.
  - D) the location of the demand curve.

80. An improvement in production technology will:
- A) increase equilibrium price.
  - B) shift the supply curve to the left.
  - C) shift the supply curve to the right.
  - D) shift the demand curve to the left.
81. "Because of unseasonably cold weather, the supply of oranges has substantially decreased." This statement indicates that:
- A) the demand for oranges will necessarily rise.
  - B) the equilibrium quantity of oranges will rise.
  - C) the amount of oranges that will be available at various prices has declined.
  - D) the price of oranges will fall.
82. If producers must obtain higher prices than previously to produce various levels of output, the following has occurred:
- A) a decrease in demand.
  - B) an increase in demand.
  - C) a decrease in supply.
  - D) an increase in supply.
83. In moving along a stable supply curve which of the following is *not* held constant?
- A) the number of firms producing this good
  - B) expectations about the future price of the product
  - C) techniques used in producing this product
  - D) the price of the product for which the supply curve is relevant
84. The location of the supply curve of a product depends on:
- A) the technology used to produce it.
  - B) the prices of resources used in its production.
  - C) the number of sellers in the market.
  - D) all of the above.
85. Assume product A is an input in the production of product B. In turn product B is a complement to product C. We can expect a decrease in the price of A to:
- A) increase the supply of B and increase the demand for C.
  - B) decrease the supply of B and increase the demand for C.
  - C) decrease the supply of B and decrease the demand for C.
  - D) increase the supply of B and decrease the demand for C.
86. Assume a drought in the Great Plains reduces the supply of wheat. Noting that wheat is a basic ingredient in the production of bread and that potatoes are a consumer substitute for bread, we would expect the price of wheat to:
- A) rise, the supply of bread to increase, and the demand for potatoes to increase.
  - B) rise, the supply of bread to decrease, and the demand for potatoes to increase.
  - C) rise, the supply of bread to decrease, and the demand for potatoes to decrease.
  - D) fall, the supply of bread to increase, and the demand for potatoes to increase.
87. Suppose product X is an input in the production of product Y. Product Y in turn is a substitute for product Z. An increase in the price of X can be expected to:
- A) decrease the demand for Z.
  - B) increase the demand for Z.
  - C) have no effect on the demand for Z.

D) decrease the supply of Z.

### Equilibrium; rationing function

Use the following to answer questions 88-93:

(1)	(2)	(3)	(4)	(5)
<u><math>Q_d</math></u>	<u><math>Q_d</math></u>	<u>Price</u>	<u><math>Q_s</math></u>	<u><math>Q_s</math></u>
70	60	\$10	70	80
60	50	9	60	70
80	60	8	50	60
90	70	7	40	50
100	80	6	30	40

88. Refer to the above table. If demand is represented by columns (3) and (2) and supply is represented by columns (3) and (5), equilibrium price and quantity will be:
- A) \$10 and 60 units.
  - B) \$9 and 50 units.
  - C) \$8 and 60 units.
  - D) \$7 and 50 units.
89. Refer to the above table. If demand is represented by columns (3) and (1) and supply is represented by columns (3) and (4), equilibrium price and quantity will be:
- A) \$10 and 60 units.
  - B) \$9 and 60 units.
  - C) \$8 and 80 units.
  - D) \$7 and 30 units.
90. Refer to the above table. In relation to column (3), a change from column (2) to column (1) would indicate a(n):
- A) increase in demand.
  - B) decrease in demand.
  - C) increase in supply.
  - D) decrease in supply.
91. Refer to the above table. In relation to column (3), a change from column (5) to column (4) would indicate a(n):
- A) increase in demand.
  - B) decrease in demand.
  - C) increase in supply.
  - D) decrease in supply.
92. Refer to the above table. Suppose that demand is represented by columns (3) and (2) and supply is represented by columns (3) and (5). If the price were artificially set at \$9, a:
- A) the market would clear.
  - B) a surplus of 20 units would occur.
  - C) a shortage of 20 units would occur.
  - D) demand would change from columns (3) and (2) to columns (3) and (1).

93. Refer to the above table. Suppose that demand is represented by columns (3) and (2) and supply is represented by columns (3) and (5). If the price were artificially set at \$6, a:
- A) the market would clear.
  - B) a surplus of 40 units would occur.
  - C) a shortage of 40 units would occur.
  - D) demand would change from columns (3) and (2) to columns (3 and (1).

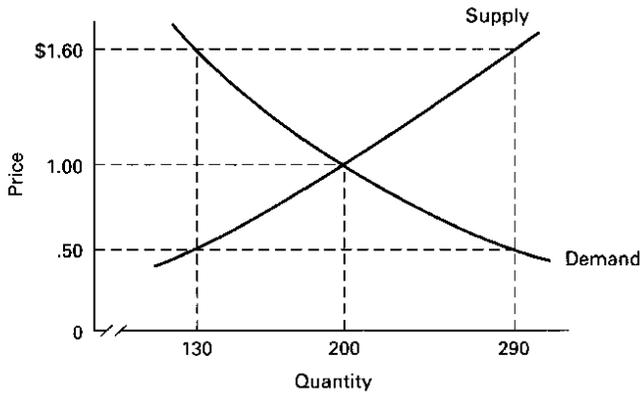
Use the following to answer questions 94-96:

Answer the next question(s) on the basis of the given supply and demand data for wheat:

<b>Bushels demanded per month</b>	<b>Price per bushel</b>	<b>Bushels supplied per month</b>
45	\$5	77
50	4	73
56	3	68
61	2	61
67	1	57

94. Refer to the above data. Equilibrium price will be:
- A) \$4.
  - B) \$3.
  - C) \$2.
  - D) \$1.
95. Refer to the above data. If the price in this market was \$4:
- A) the market would clear; quantity demanded would equal quantity supplied.
  - B) buyers would want to purchase more wheat than is currently being supplied.
  - C) farmers would not be able to sell all their wheat.
  - D) there would be a shortage of wheat.
96. Refer to the above data. If price was initially \$4 and free to fluctuate, we would expect:
- A) quantity supplied to continue to exceed quantity demanded.
  - B) the quantity of wheat supplied to decline as a result of the subsequent price change.
  - C) the quantity of wheat demanded to fall as a result of the subsequent price change.
  - D) the price of wheat to rise.

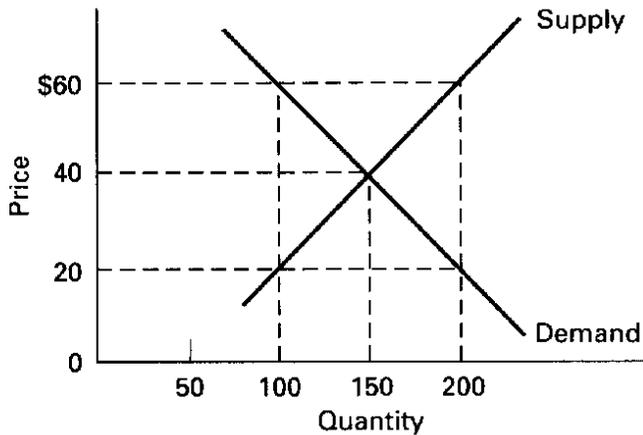
Use the following to answer questions 97-99:



97. Refer to the above diagram. The equilibrium price and quantity in this market will be:
- \$1.00 and 200.
  - \$1.60 and 130.
  - \$.50 and 130.
  - \$1.60 and 290.
98. Refer to the above diagram. A surplus of 160 units would be encountered if price was:
- \$1.10, that is, \$1.60 minus \$.50.
  - \$1.60.
  - \$1.00.
  - \$.50.
99. Refer to the above diagram. A shortage of 160 units would be encountered if price was:
- \$1.10, that is, \$1.60 minus \$.50.
  - \$1.60.
  - \$1.00.
  - \$.50.
100. If a product is in surplus supply, its price:
- is below the equilibrium level.
  - is above the equilibrium level.
  - will rise in the near future.
  - is in equilibrium.
101. A market is in equilibrium:
- provided there is no surplus of the product.
  - at all prices above that shown by the intersection of the supply and demand curves.
  - if the amount producers want to sell is equal to the amount consumers want to buy.
  - whenever the demand curve is downsloping and the supply curve is upsloping.
102. If the demand and supply curves for product X are stable, a government-mandated increase in the price of X will:
- increase the supply of X and decrease the demand for X.
  - increase the demand for X and decrease the supply of X.
  - increase the quantity supplied and decrease the quantity demanded of X.
  - decrease the quantity supplied of X and increase the quantity demanded of X.

103. At the equilibrium price:
- A) quantity supplied may exceed quantity demanded or vice versa.
  - B) there are no pressures on price to either rise or fall.
  - C) there are forces that cause price to rise.
  - D) there are forces that cause price to fall.

Use the following to answer questions 104-107:



104. Refer to the above diagram. A price of \$60 in this market will result in:
- A) equilibrium.
  - B) a shortage of 50 units.
  - C) a surplus of 50 units.
  - D) a surplus of 100 units.
105. Refer to the above diagram. A price of \$20 in this market will result in:
- A) a shortage of 50 units.
  - B) a surplus of 50 units.
  - C) a surplus of 100 units.
  - D) a shortage of 100 units.
106. Refer to the above diagram. The highest price that buyers will be willing and able to pay for 100 units of this product is:
- A) \$30.
  - B) \$60.
  - C) \$40.
  - D) \$20.
107. Refer to the above diagram. If this is a competitive market, price and quantity will move toward:
- A) \$60 and 100 respectively.
  - B) \$60 and 200 respectively.
  - C) \$40 and 150 respectively.
  - D) \$20 and 150 respectively.

108. At the point where the demand and supply curves for a product intersect:
- A) the "selling price" and the "buying price" need not be equal.
  - B) the market may, or may not, be in equilibrium.
  - C) either a shortage or a surplus of the product might exist, depending on the degree of competition.
  - D) the quantity that consumers want to purchase and the amount producers choose to sell are the same.
109. The rationing function of prices refers to the:
- A) tendency of supply and demand to shift in opposite directions.
  - B) fact that ration coupons are needed to alleviate wartime shortages of goods.
  - C) capacity of a competitive market to equate the quantity demanded and the quantity supplied.
  - D) ability of the market system to generate an equitable distribution of income.
110. A competitive market will:
- A) achieve an equilibrium price.
  - B) produce shortages.
  - C) produce surpluses.
  - D) create disorder.
111. If there is a shortage of product X:
- A) fewer resources will be allocated to the production of this good.
  - B) the price of the product will rise.
  - C) the price of the product will decline.
  - D) the supply curve will shift to the left and the demand curve to the right, eliminating the shortage.
112. At the point where the demand and supply curves intersect:
- A) the buying and selling decisions of consumers and producers are inconsistent with one another.
  - B) the market is in disequilibrium.
  - C) there is neither a surplus nor a shortage of the product.
  - D) quantity demanded exceeds quantity supplied.
113. At the current price there is a shortage of a product. We would expect price to:
- A) increase, quantity demanded to increase, and quantity supplied to decrease.
  - B) increase, quantity demanded to decrease, and quantity supplied to increase.
  - C) increase, quantity demanded to increase, and quantity supplied to increase.
  - D) decrease, quantity demanded to increase, and quantity supplied to decrease.
114. In a competitive market the equilibrium price and quantity occur where:
- A) the downsloping demand curve intersects the upsloping supply curve.
  - B) the upsloping demand curve intersects the downsloping supply curve.
  - C) consumers and suppliers bargain to a mutually acceptable price.
  - D) quantity demanded exceeds quantity supplied or vice versa.
115. A surplus of a product will arise when price is:
- A) above equilibrium with the result that quantity demanded exceeds quantity supplied.
  - B) above equilibrium with the result that quantity supplied exceeds quantity demanded.
  - C) below equilibrium with the result that quantity demanded exceeds quantity supplied.
  - D) below equilibrium with the result that quantity supplied exceeds quantity demanded.

116. If price is above the equilibrium level, competition among sellers to reduce the resulting:
- A) surplus will increase quantity demanded and decrease quantity supplied.
  - B) shortage will decrease quantity demanded and increase quantity supplied.
  - C) surplus will decrease quantity demanded and increase quantity supplied.
  - D) shortage will increase quantity demanded and decrease quantity supplied.
117. If we say that a price is "too high to clear the market," we mean that:
- A) quantity demanded exceeds quantity supplied.
  - B) the equilibrium price is above the current price.
  - C) quantity supplied exceeds quantity demanded.
  - D) the price of the good is likely to rise.
118. Assume in a competitive market that price is initially above the equilibrium level. We can predict that price will:
- A) decrease, quantity demanded will decrease, and quantity supplied will increase.
  - B) decrease and quantity demanded and quantity supplied will both decrease.
  - C) decrease, quantity demanded will increase, and quantity supplied will decrease.
  - D) increase, quantity demanded will decrease, and quantity supplied will increase.
119. Assume in a competitive market that price is initially below the equilibrium level. We can predict that price will:
- A) decrease, quantity demanded will decrease, and quantity supplied will increase.
  - B) decrease and quantity demanded and quantity supplied will both decrease.
  - C) decrease, quantity demanded will increase, and quantity supplied will decrease.
  - D) increase, quantity demanded will decrease, and quantity supplied will increase.
120. A product market is in equilibrium:
- A) when there is no surplus of the product.
  - B) when there is no shortage of the product.
  - C) when consumers want to buy more of the product than producers offer for sale.
  - D) where the demand and supply curves intersect.
121. There will be a surplus of a product when:
- A) price is below the equilibrium level.
  - B) the supply curve is downward sloping and the demand curve is upward sloping.
  - C) the demand and supply curves fail to intersect.
  - D) consumers want to buy less than producers offer for sale.

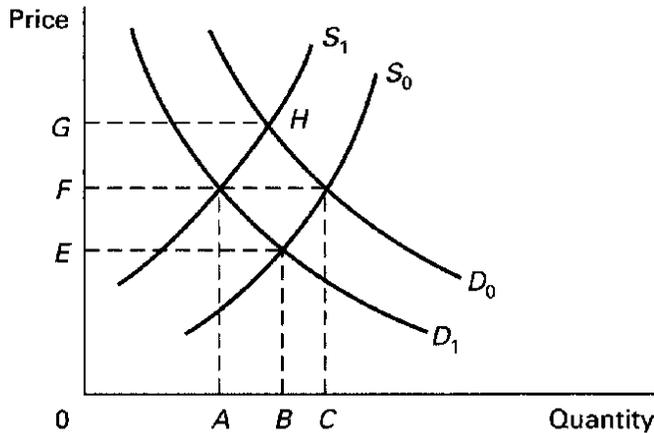
### **Changes in equilibrium price and quantity**

122. Other things equal, an excise tax on a product will:
- A) increase its supply.
  - B) increase its price.
  - C) increase the quantity sold.
  - D) increase its demand.
123. Assuming conventional supply and demand curves, changes in the determinants of supply and demand will:
- A) in all likelihood alter both equilibrium price and quantity.
  - B) alter equilibrium quantity, but not equilibrium price.

- C) alter equilibrium price, but not equilibrium quantity.
- D) have no effect on equilibrium price or quantity.

124. Which of the following will cause a decrease in market equilibrium price and an increase in equilibrium quantity?
- A) an increase in supply
  - B) an increase in demand
  - C) a decrease in supply
  - D) a decrease in demand
125. Suppose in each of four successive years producers sell more of their product and at lower prices. This could be explained:
- A) by small annual increases in supply accompanied by large annual increases in demand.
  - B) in terms of a stable supply curve and increasing demand.
  - C) in terms of a stable demand curve and increasing supply.
  - D) as an exception to the law of supply.
126. Other things equal, the provision of a per unit subsidy for a product will:
- A) increase its supply.
  - B) increase its price.
  - C) decrease the quantity sold.
  - D) decrease its demand.
127. Which of the following statements is *correct*?
- A) If demand increases and supply decreases, equilibrium price will fall.
  - B) If supply increases and demand decreases, equilibrium price will fall.
  - C) If demand decreases and supply increases, equilibrium price will rise.
  - D) If supply declines and demand remains constant, equilibrium price will fall.
128. In which of the following instances will the effect on equilibrium price be dependent on the magnitude of the shifts in supply and demand?
- A) demand rises and supply rises
  - B) supply falls and demand remains constant
  - C) demand rises and supply falls
  - D) supply rises and demand falls

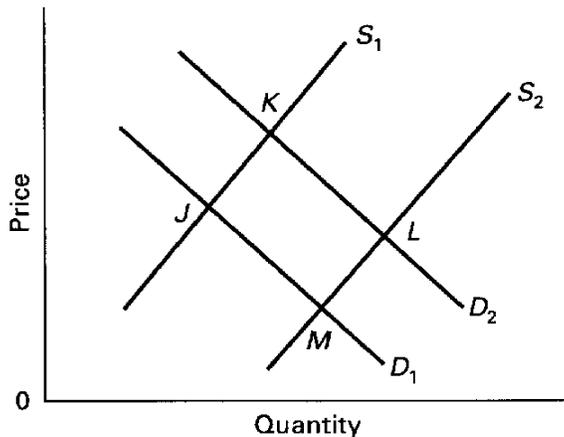
Use the following to answer questions 129-133:



129. Refer to the above diagram, which shows demand and supply conditions in the competitive market for product X. If the initial demand and supply curves are  $D_0$  and  $S_0$ , equilibrium price and quantity will be:
- $0F$  and  $0C$  respectively.
  - $0G$  and  $0B$  respectively.
  - $0F$  and  $0A$  respectively.
  - $0E$  and  $0B$  respectively.
130. Refer to the above diagram, which shows demand and supply conditions in the competitive market for product X. Given  $D_0$ , if the supply curve moved from  $S_0$  to  $S_1$ , then:
- supply has increased and equilibrium quantity has decreased.
  - supply has decreased and equilibrium quantity has decreased.
  - there has been an increase in the quantity supplied.
  - supply has increased and price has risen to  $0G$ .
131. Refer to the above diagram, which shows demand and supply conditions in the competitive market for product X. If supply is  $S_1$  and demand  $D_0$ , then
- at any price above  $0G$  a shortage would occur.
  - $0F$  represents a price that would result in a surplus of  $AC$ .
  - a surplus of  $GH$  would occur.
  - $0F$  represents a price that would result in a shortage of  $AC$ .
132. Refer to the above diagram, which shows demand and supply conditions in the competitive market for product X. A shift in the demand curve from  $D_0$  to  $D_1$  might be caused by a(n):
- decrease in income if X is an inferior good.
  - increase in the price of complementary good Y.
  - increase in money incomes if X is a normal good.
  - increase in the price of substitute product Y.
133. Refer to the above diagram, which shows demand and supply conditions in the competitive market for product X. Other things equal, a shift of the supply curve from  $S_0$  to  $S_1$  might be caused by a(n):
- increase in the wage rates paid to laborers employed in the production of X.
  - government subsidy per unit of output paid to firms producing X.
  - decline in the price of the basic raw material used in producing X.
  - increase in the number of firms producing X.

134. If the supply and demand curves for a product both decrease, then equilibrium:
- quantity must fall and equilibrium price must rise.
  - price must fall, but equilibrium quantity may either rise, fall, or remain unchanged.
  - quantity must decline, but equilibrium price may either rise, fall, or remain unchanged.
  - quantity and equilibrium price must both decline.
135. If the supply of a product decreases and the demand for that product simultaneously increases, then equilibrium:
- price must rise, but equilibrium quantity may either rise, fall, or remain unchanged.
  - price must rise and equilibrium quantity must fall.
  - price and equilibrium quantity must both increase.
  - price and equilibrium quantity must both decline.
136. Assuming competitive markets with typical supply and demand curves, which of the following statements is *correct*?
- An increase in supply with a decrease in demand will result in an increase in price.
  - An increase in supply with no change in demand will result in an increase in price.
  - An increase in supply with no change in demand will result in a decline in sales.
  - An increase in demand with no change in supply will result in an increase in sales.

Use the following to answer questions 137-140:



137. Refer to the above diagram, in which  $S_1$  and  $D_1$  represent the original supply and demand curves and  $S_2$  and  $D_2$  the new curves. In this market:
- supply has decreased and equilibrium price has increased.
  - demand has increased and equilibrium price has decreased.
  - demand has decreased and equilibrium price has decreased.
  - demand has increased and equilibrium price has increased.
138. Refer to the above diagram, in which  $S_1$  and  $D_1$  represent the original supply and demand curves and  $S_2$  and  $D_2$  the new curves. In this market:
- the equilibrium position has shifted from  $M$  to  $K$ .
  - an increase in demand has been more than offset by an increase in supply.
  - the new equilibrium price and quantity are both greater than originally.

D) point  $M$  shows the new equilibrium position.

139. Refer to the above diagram, in which  $S_1$  and  $D_1$  represent the original supply and demand curves and  $S_2$  and  $D_2$  the new curves. In this market the indicated shift in supply may have been caused by:
- A) an increase in the wages paid to workers producing this good.
  - B) the development of more efficient machinery for producing this commodity.
  - C) this product becoming less fashionable.
  - D) an increase in consumer incomes.
140. Refer to the above diagram, in which  $S_1$  and  $D_1$  represent the original supply and demand curves and  $S_2$  and  $D_2$  the new curves. In this market the indicated shift in demand may have been caused by:
- A) a decline in the number of buyers in the market.
  - B) a decline in the price of a substitute good.
  - C) an increase in incomes if the product is a normal good.
  - D) an increase in incomes if the product is an inferior good.
141. An unusually large crop of coffee beans might:
- A) increase the supply of coffee.
  - B) increase the price of coffee.
  - C) decrease the quantity of coffee consumed.
  - D) increase the price of tea.

Use the following to answer questions 142-151:

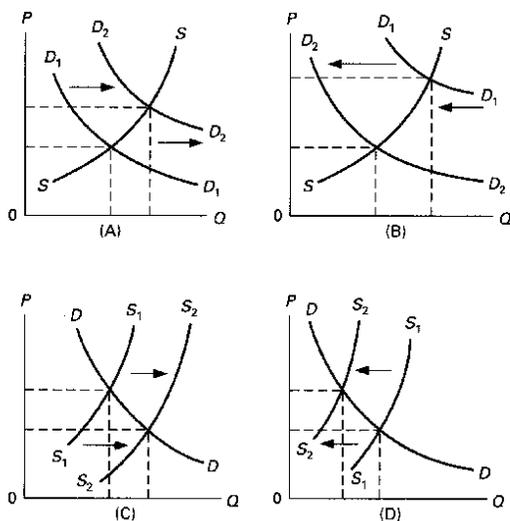
In the following question(s) you are asked to determine, other things equal, the effects of a given change in a determinant of demand or supply for product  $X$  upon (1) the demand ( $D$ ) for, or supply ( $S$ ) of,  $X$ , (2) the equilibrium price ( $P$ ) of  $X$  and (3) the equilibrium quantity ( $Q$ ) of  $X$ .

142. Refer to the above. An increase in income, if  $X$  is a normal good, will:
- A) increase  $D$ , increase  $P$ , and increase  $Q$ .
  - B) increase  $D$ , increase  $P$ , and decrease  $Q$ .
  - C) increase  $S$ , increase  $P$ , and increase  $Q$ .
  - D) decrease  $D$ , increase  $P$ , and increase  $Q$ .
143. Refer to the above. An increase in the price of a product that is a close substitute for  $X$  will:
- A) decrease  $D$ , increase  $P$ , and decrease  $Q$ .
  - B) increase  $D$ , increase  $P$ , and decrease  $Q$ .
  - C) increase  $D$ , increase  $P$ , and increase  $Q$ .
  - D) increase  $D$ , decrease  $P$ , and increase  $Q$ .
144. Refer to the above. A decrease in the number of consumers of product  $X$  will:
- A) decrease  $S$ , decrease  $P$ , and decrease  $Q$ .
  - B) increase  $D$ , increase  $P$ , and increase  $Q$ .
  - C) decrease  $D$ , decrease  $P$ , and decrease  $Q$ .
  - D) decrease  $D$ , decrease  $P$ , and increase  $Q$ .
145. Refer to the above. An increase in the tastes and preferences for  $X$  will:

- A) increase  $S$ , decrease  $P$ , and increase  $Q$ .  
 B) decrease  $S$ , decrease  $P$ , and decrease  $Q$ .  
 C) increase  $D$ , increase  $P$ , and increase  $Q$ .  
 D) decrease  $D$ , decrease  $P$ , and decrease  $Q$ .
146. Refer to the above. An increase in the prices of resources used to produce  $X$  will:  
 A) increase  $S$ , increase  $P$ , and increase  $Q$ .  
 B) increase  $D$ , increase  $P$ , and increase  $Q$ .  
 C) decrease  $S$ , decrease  $P$ , and decrease  $Q$ .  
 D) decrease  $S$ , increase  $P$ , and decrease  $Q$ .
147. Refer to the above. An improvement in the technology used to produce  $X$  will:  
 A) decrease  $S$ , increase  $P$ , and decrease  $Q$ .  
 B) decrease  $S$ , increase  $P$ , and increase  $Q$ .  
 C) increase  $S$ , decrease  $P$ , and increase  $Q$ .  
 D) decrease  $D$ , decrease  $P$ , and decrease  $Q$ .
148. Refer to the above. A reduction in the number of firms producing  $X$  will:  
 A) increase  $D$ , increase  $P$ , and increase  $Q$ .  
 B) increase  $S$ , decrease  $P$ , and increase  $Q$ .  
 C) decrease  $S$ , increase  $P$ , and decrease  $Q$ .  
 D) decrease  $S$ , decrease  $P$ , and increase  $Q$ .
149. Refer to the above. An increase in the price of a product which is a complement to  $X$  will:  
 A) decrease  $S$ , decrease  $P$ , and decrease  $Q$ .  
 B) increase  $D$ , increase  $P$ , and increase  $Q$ .  
 C) decrease  $D$ , decrease  $P$ , and decrease  $Q$ .  
 D) increase  $D$ , increase  $P$ , and decrease  $Q$ .
150. Refer to the above. If  $X$  is an inferior good, a decrease in income will:  
 A) decrease  $D$ , decrease  $P$ , and decrease  $Q$ .  
 B) decrease  $D$ , decrease  $P$ , and increase  $Q$ .  
 C) increase  $S$ , decrease  $P$ , and increase  $Q$ .  
 D) increase  $D$ , increase  $P$ , and increase  $Q$ .
151. Refer to the above. Consumer expectations that the price of  $X$  will rise sharply in the future will:  
 A) increase  $S$ , increase  $P$ , and increase  $Q$ .  
 B) increase  $D$ , increase  $P$ , and increase  $Q$ .  
 C) decrease  $S$ , increase  $P$ , and increase  $Q$ .  
 D) increase  $D$ , decrease  $P$ , and increase  $Q$ .
152. Data from the registrar's office at Gigantic State University indicate that over the past twenty years tuition and enrollment have both increased. From this information we can conclude that:  
 A) higher education is an exception to the law of demand.  
 B) the supply of education provided by GSU has also increased over the twenty-year period.  
 C) school-age population, incomes, and preferences for education have changed over the twenty-year period.  
 D) GSU's supply curve of education is downsloping.

153. One can say with certainty that equilibrium price will decline when supply:
- A) and demand both decrease.
  - B) increases and demand decreases.
  - C) decreases and demand increases.
  - D) and demand both increase.
154. One can say with certainty that equilibrium quantity will increase when supply:
- A) and demand both decrease.
  - B) increases and demand decreases.
  - C) decreases and demand increases.
  - D) and demand both increase.

Use the following to answer questions 155-160:



155. Which of the above diagrams illustrate(s) the effect of an increase in automobile worker wages on the market for automobiles?
- A) A only
  - B) B only
  - C) C only
  - D) D only
156. Which of the above diagrams illustrate(s) the effect of a decline in the price of personal computers on the market for software?
- A) A only
  - B) A and D
  - C) B only
  - D) D only
157. Which of the above diagrams illustrate(s) the effect of an increase in the price of Budweiser beer on the market for Coors beer?
- A) A and C
  - B) A only
  - C) B only
  - D) C only

158. Which of the above diagrams illustrate(s) the effect of a decrease in incomes on the market for secondhand clothing?
- A and C
  - A only
  - B only
  - C only
159. Which of the above diagrams illustrate(s) the effect of a governmental subsidy on the market for AIDS research?
- A only
  - B only
  - C only
  - D only
160. Which of the above diagrams illustrate(s) the effect of a decline in the price of irrigation equipment on the market for corn?
- B only
  - C only
  - B and C
  - D only
161. With a downsloping demand curve and an upsloping supply curve for a product, an increase in consumer income will:
- increase equilibrium price and quantity if the product is a normal good.
  - decrease equilibrium price and quantity if the product is a normal good.
  - have no effect on equilibrium price and quantity.
  - reduce the quantity demanded, but not shift the demand curve.
162. With a downsloping demand curve and an upsloping supply curve for a product, a decrease in resource prices will:
- increase equilibrium price and quantity.
  - decrease equilibrium price and quantity.
  - decrease equilibrium price and increase equilibrium quantity.
  - increase equilibrium price and decrease equilibrium quantity.
163. With a downsloping demand curve and an upsloping supply curve for a product, placing an excise tax on this product will:
- increase equilibrium price and quantity.
  - decrease equilibrium price and quantity.
  - decrease equilibrium price and increase equilibrium quantity.
  - increase equilibrium price and decrease equilibrium quantity.
164. Given a downsloping demand curve and an upsloping supply curve for a product, an increase in the price of a substitute good will:
- increase equilibrium price and quantity.
  - decrease equilibrium price and quantity.
  - increase equilibrium price and decrease equilibrium quantity.
  - decrease equilibrium price and increase equilibrium quantity.

Use the following to answer questions 165-169:

(Advanced analysis) Answer the next question(s) on the basis of the following information. The demand for commodity X is represented by the equation  $P = 10 - 0.2Q$  and supply by the equation  $P = 2 + 0.2Q$ .

165. Refer to the above information. The equilibrium quantity is:  
A) 10.  
B) 20.  
C) 15.  
D) 30.
166. Refer to the above information. The equilibrium price for X is:  
A) \$2.  
B) \$4.  
C) \$6.  
D) \$7.
167. Refer to the above information. If demand changed from  $P = 10 - .2Q$  to  $P = 7 - .3Q$ , we can conclude that:  
A) demand has increased.  
B) demand has declined.  
C) supply will increase.  
D) supply will decrease.
168. Refer to the above information. After the change in demand, the new equilibrium quantity is:  
A) 10.  
B) 20.  
C) 15.  
D) 30.
169. Refer to the above information. After the change in demand, the new equilibrium price is:  
A) \$2.  
B) \$4.  
C) \$6.  
D) \$7.

### Last Word Questions

170. (Last Word) Ticket scalping refers to:  
A) the surplus of tickets that occurs when price is set below equilibrium.  
B) the shortage of tickets that occurs when price is set above equilibrium.  
C) pricing tickets so high that an athletic or artistic event will not be sold out.  
D) reselling a ticket at a price above its original purchase price.
171. (Last Word) Ticket scalping:  
A) imposes economic losses on both buyers and sellers.  
B) creates economic gains for both buyers and sellers.  
C) imposes losses on buyers, but creates gains for sellers.  
D) imposes losses on sellers, but creates gains for buyers.
172. (Last Word) Ticket scalping implies that:  
A) event sponsors have established ticket prices at above-equilibrium levels.

- B) an event is not likely to be sold out.
- C) event sponsors have established ticket prices at below-equilibrium levels.
- D) the demand for tickets has fallen between the time tickets were originally sold and the event takes place.

173. (Last Word) Ticket scalping is likely to:
- A) produce a less interested audience.
  - B) reduce the well-being of ticket sellers.
  - C) reduce the well-being of ticket buyers.
  - D) produce a more interested audience.

### True/False Questions

174. Surpluses drive market prices up; shortages drive them down.
175. If demand increases and supply simultaneously decreases, equilibrium price will rise.
176. The rationing function of prices refers to the fact that government must distribute any surplus goods that may be left in a competitive market.
177. An "increase in the quantity supplied" is caused by a decline in production costs.
178. "Supply" refers to the amount of a product that a producer will offer in the market at some particular price.
179. An increase in demand accompanied by an increase in supply will increase the equilibrium quantity but the effect on equilibrium price will be indeterminate.
180. A government subsidy per unit of output increases supply.
181. Consumers buy more of normal goods as their incomes rise.
182. Toothpaste and toothbrushes are substitute goods.
183. A government tax per unit of output reduces supply.
184. If market demand increases and market supply decreases, the change in equilibrium price is unpredictable without first knowing the exact magnitudes of the demand and supply changes.
185. A decrease in supply of X increases the equilibrium price of X, which reduces the demand for X and automatically returns the price of X to its initial level.

186. In a competitive market, every consumer willing to pay the market price can buy a product and every producer willing to sell the product at that price can sell it.

