Chapter 2
Supply and Demand

■ Multiple Choice

1) According to the Law of Demand, the demand curve for a good will
   (a) shift leftward when the price of the good increases.
   (b) shift rightward when the price of the good increases.
   (c) slope downward.
   (d) slope upward.

   Answer: C
   Difficulty: 0
   Topic: Demand
   Question Status: Revised

2) Holding all other factors constant, consumers demand more of a good the
   (a) higher its price.
   (b) lower its price.
   (c) steeper the downward slope of the demand curve.
   (d) steeper the upward slope of the demand curve.

   Answer: B
   Difficulty: 0
   Topic: Demand
   Question Status: New

3) As the price of a good increases, the change in the quantity demanded can be shown by
   (a) shifting the demand curve leftward.
   (b) shifting the demand curve rightward.
   (c) moving down along the same demand curve.
   (d) moving up along the same demand curve.

   Answer: D
   Difficulty: 0
   Topic: Demand
   Question Status: Revised

4) If the price of automobiles were to increase substantially, the demand curve for gasoline would most likely

(a) shift leftward.
(b) shift rightward.
(c) become flatter.
(d) become steeper.

Answer: A
Difficulty: 0
Topic: Demand
Question Status: Revised

5) If the price of automobiles were to decrease substantially, the demand curve for automobiles would most likely

(a) shift rightward.
(b) shift leftward.
(c) remain unchanged.
(d) become steeper.

Answer: C
Difficulty: 0
Topic: Demand
Question Status: New

6) If the price of automobiles were to decrease substantially, the demand curve for public transportation would most likely

(a) shift rightward.
(b) shift leftward.
(c) remain unchanged.
(d) remain unchanged while quantity demanded would change.

Answer: B
Difficulty: 1
Topic: Demand
Question Status: Revised

7) An increase in the demand curve for orange juice would be illustrated as a

(a) leftward shift of the demand curve.
(b) rightward shift of the demand curve.
(c) movement up along the demand curve.
(d) movement down along the demand curve.

Answer: B
Difficulty: 0
Topic: Demand
Question Status: Revised

8) The term "inverse demand curve" refers to

(a) a demand curve that slopes upward.
(b) expressing the demand curve in terms of price as a function of quantity.
(c) the demand for "inverses."
(d) the difference between quantity demanded and supplied at each price.

Answer: B
Difficulty: 0
Topic: Demand
Question Status: Revised

9) If the demand for oranges is written as $Q = 100 - 5p$, then the inverse demand function is

(a) $Q = 5p - 100$.
(b) $Q = 20 - .2p$.
(c) $p = 20 - 5Q$.
(d) $p = 20 - .2Q$.

Answer: D
Difficulty: 1
Topic: Demand
Question Status: Revised

10) If government regulations prohibit the production of a particular good, the demand curve for that good will most likely

(a) shift leftward.
(b) shift rightward.
(c) remain unchanged.
(d) disappear.

Answer: C
Difficulty: 1
Topic: Demand
Question Status: Revised

11) To determine the total demand for all consumers, sum the quantity each consumer demands

(a) at a given price.
(b) at all prices and then sum this amount across all consumers.
(c) both a and b will generate the same total demand.
(d) none of the above.

Answer: A
Difficulty: 1
Topic: Demand
Question Status: New

12) How much firms want to sell can be affected by

(a) costs of production.
(b) taxes.
(c) pollution regulations.
(d) all of the above.

Answer: D
Difficulty: 0
Topic: Supply
Question Status: New

13) Suppose the demand curve for a good shifts rightward, causing the equilibrium price to increase. This increase in the price of the good results in

(a) a rightward shift of the supply curve.
(b) an increase in quantity supplied.
(c) a leftward shift of the supply curve.
(d) a leftward movement along the supply curve.

Answer: B
Difficulty: 0
Topic: Supply
Question Status: Revised

14) Suppose there are 100 identical firms in the rag industry, and each firm is willing to supply 10 rags at any price. The market supply curve will be a(n)

(a) vertical line where Q = 10.
(b) vertical line where Q = 100.
(c) vertical line where Q = 1000.
(d) horizontal line where Q = 1000.

Answer: C
Difficulty: 1
Topic: Supply
Question Status: Revised

15) The expression "increase in quantity supplied" is illustrated graphically as a

(a) leftward shift in the supply curve.
(b) rightward shift in the supply curve.
(c) movement up along the supply curve.
(d) movement down along the supply curve.

Answer: C
Difficulty: 1
Topic: Supply
Question Status: Revised

16) If the supply curve of a product changes so that sellers are now willing to sell 2 additional units at any given price, the supply curve will

(a) shift leftward by 2 units.
(b) shift rightward by 2 units.
(c) shift vertically up by 2 units.
(d) shift vertically down by 2 units.

Answer: B
Difficulty: 1
Topic: Supply
Question Status: Revised

17) The market supply curve is found by

(a) horizontally summing all individual supply curves.
(b) vertically summing all individual supply curves.
(c) Either A or B above since they both give the same answer.
(d) None of the above.

Answer: A
Difficulty: 1
Topic: Supply
Question Status: Revised

18) Technological innovations in the production of computers has led to

(a) a decrease in the quantity demanded for computers.
(b) a rightward shift of the supply curve for computers.
(c) a decrease in the quantity supplied of computers.
(d) None of the above.

Answer: B
Difficulty: 1
Topic: Supply
Question Status: Revised

19) Equilibrium is defined as a situation in which

(a) neither buyers nor sellers want to change their behavior.
(b) no government regulations exist.
(c) demand curves are perfectly horizontal.
(d) suppliers will supply any amount that buyers wish to buy.

Answer: A
Difficulty: 0
Topic: Market Equilibrium
Question Status: Revised

20) If price is initially above the equilibrium level,
   (a) the supply curve will shift rightward.
   (b) the supply curve will shift leftward.
   (c) excess supply exists.
   (d) all firms can sell as much as they want.

   Answer: C
   Difficulty: 0
   Topic: Market Equilibrium
   Question Status: New

21) A competitive equilibrium is described by
   (a) a price only.
   (b) a quantity only.
   (c) the excess supply minus the excess demand.
   (d) a price and a quantity.

   Answer: D
   Difficulty: 0
   Topic: Market Equilibrium
   Question Status: Previous edition

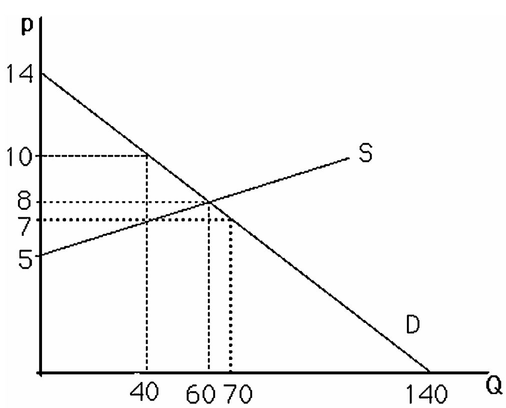

Figure 2.1

22) Figure 2.1 shows a graph of the market for pizzas in a large town. No pizzas will be supplied unless the price is above
   (a) $0.
   (b) $5.
   (c) $12.
   (d) $14.

   Answer: B
   Difficulty: 0
   Topic: Supply
   Question Status: Revised

23) Figure 2.1 shows a graph of the market for pizzas in a large town. No pizzas will be demanded unless price is less than

(a) \$0.
(b) \$5.
(c) \$12.
(d) \$14.

Answer: D
Difficulty: 0
Topic: Demand
Question Status: Revised

24) Figure 2.1 shows a graph of the market for pizzas in a large town. At a price of \$14, there will be

(a) no pizzas supplied.
(b) equilibrium.
(c) excess supply.
(d) excess demand.

Answer: C
Difficulty: 1
Topic: Market Equilibrium
Question Status: Revised

25) Figure 2.1 shows a graph of the market for pizzas in a large town. At a price of \$5, there will be

(a) excess demand.
(b) excess supply.
(c) equilibrium.
(d) zero demand.

Answer: A
Difficulty: 1
Topic: Market Equilibrium
Question Status: Revised

26) Figure 2.1 shows a graph of the market for pizzas in a large town. What are the equilibrium price and quantity?

(a) p = 8, Q = 60
(b) p = 60, Q = 8
(c) p = 14, Q = 140
(d) p = 5, Q = 60

Answer: A
Difficulty: 1
Topic: Market Equilibrium
Question Status: Revised

27) Figure 2.1 shows a graph of a market for pizzas in a large town. At a price of \$7, what is the amount of excess demand?

(a) 0; there is excess supply at \$7.
(b) 20 units
(c) 30 units
(d) 10 units

Answer: C
Difficulty: 1
Topic: Market Equilibrium
Question Status: Revised

28) Figure 2.1 shows a graph of a market for pizzas in a large town. At a price of \$10, the market

(a) is not in equilibrium.
(b) has excess supply.
(c) does not have excess demand.
(d) All of the above.

Answer: D
Difficulty: 0
Topic: Market Equilibrium
Question Status: Revised

29) Figure 2.1 shows a graph of the market for pizzas in a large town. Suppose that concern over dietary habits has led the government to impose a restriction that limits suppliers to produce no more than 40 pizzas. What will the price of pizza be as a result of this quota?

(a) \$2
(b) \$7
(c) \$8
(d) \$10

Answer: D
Difficulty: 1
Topic: Effects of Government Intervention
Question Status: Revised

30) Figure 2.1 shows a graph of the market for pizzas in a large town. Suppose that concern over dietary habits has led the government to impose a restriction that limits suppliers to produce only 40 pizzas. As a result, for prices greater than $7, the

(a) supply curve is unchanged.
(b) supply curve is vertical.
(c) demand curve becomes vertical.
(d) demand curve becomes horizontal.

Answer: B
Difficulty: 2
Topic: Effects of Government Intervention
Question Status: Revised

31) Figure 2.1 shows a graph of the market for pizzas in a large town. As a result of concern over the affordability of pizza, the government restricts sellers from charging a price over $7. As a result, the quantity of pizzas consumed will

(a) increase.
(b) decrease.
(c) remain unchanged.
(d) be indeterminable.

Answer: B
Difficulty: 2
Topic: Effects of Government Intervention
Question Status: Revised

32) If pizza and tacos are substitutes, a decrease in the price of tacos would lead to a

(a) decrease in the demand curve for pizza.
(b) decrease in the quantity demanded of pizza.
(c) decrease in the price of pizza.
(d) All of the above.

Answer: D
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

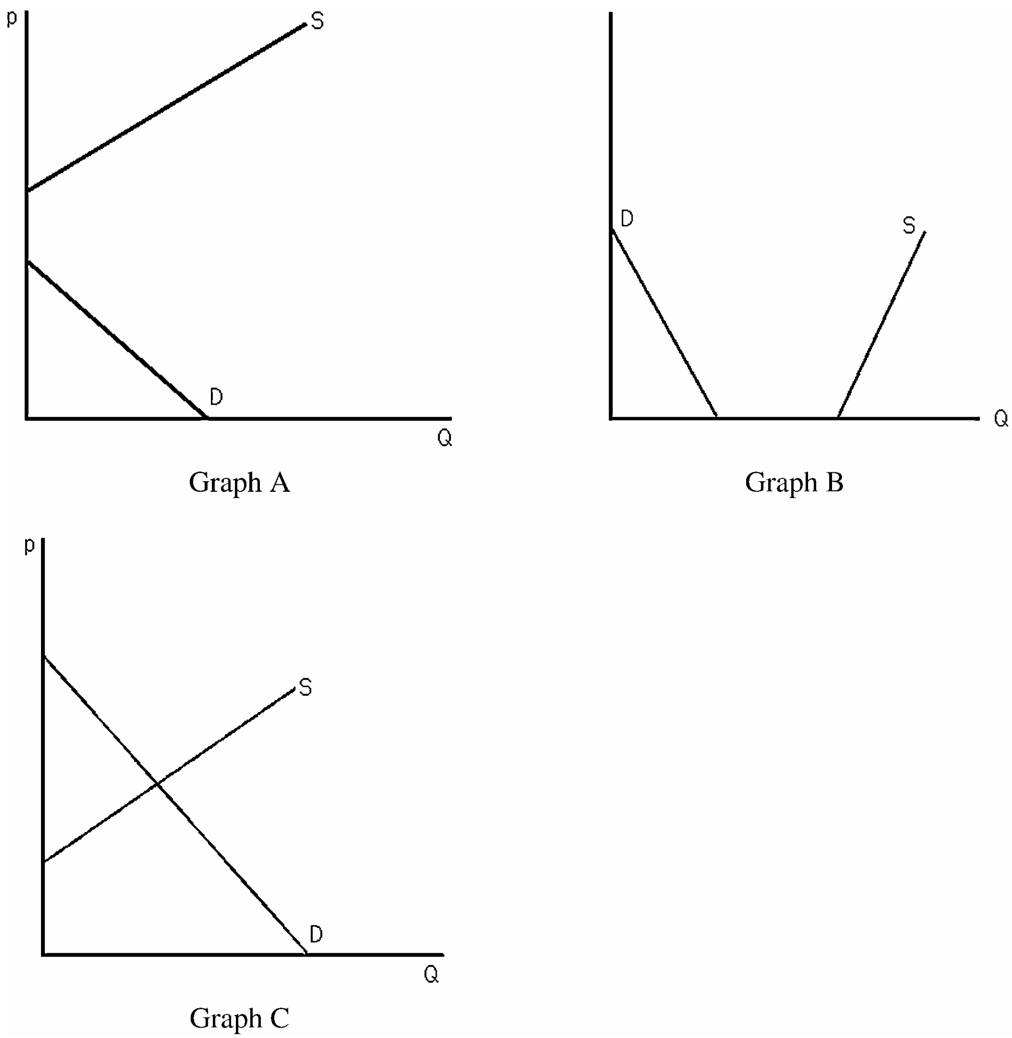

Figure 2.2

33) Figure 2.2 shows three different supply-and-demand graphs. Which graph best represents the market for vacations on Mars?

(a) graph A
(b) graph B
(c) graph C
(d) None of the above.

Answer: A
Difficulty: 2
Topic: Market Equilibrium
Question Status: Revised

34) Figure 2.2 shows three different supply-and-demand graphs. Which graph best represents the market for workers at your nearest fast-food restaurant?

(a) graph A
(b) graph B
(c) graph C
(d) None of the above.

Answer: C
Difficulty: 2
Topic: Market Equilibrium
Question Status: Revised

35) Figure 2.2 shows three different supply-and-demand graphs. Which graph best represents the market for the air we are currently breathing?

(a) graph A
(b) graph B
(c) graph C
(d) None of the above.

Answer: B
Difficulty: 2
Topic: Market Equilibrium
Question Status: Revised

36) After tickets for a major sporting event are purchased at the official box office price, a market often develops whereby these tickets sell at prices well above the official box office price. Which of the following scenarios would NOT be able to explain this result?

(a) The official price was below equilibrium from the moment the tickets were available.
(b) Increased publicity causes the demand curve for the event to shift rightward.
(c) The event was not a sellout.
(d) Not everyone who wanted a ticket was able to buy one at the box office.

Answer: C
Difficulty: 2
Topic: Market Equilibrium
Question Status: Revised

37) Restricting imports tends to

(a) shift the demand curve for the product to the left.
(b) shift the demand curve for the product to the right.
(c) change the shape of the supply curve.
(d) increase the quantity supplied of a product.

Answer: C
Difficulty: 1
Topic: Effects of Government Intervention
Question Status: Revised

38) Once an equilibrium is achieved, it can persist indefinitely because

(a) shocks that shift the demand curve or the supply curve cannot occur.
(b) shocks to the demand curve are always exactly offset by shocks to the supply curve.
(c) the government never intervenes in markets at equilibrium.
(d) no one applies pressure to change the price.

Answer: D
Difficulty: 0
Topic: Shocking the Equilibrium
Question Status: New

39) A drought in the Midwest will raise the price of wheat because of a

(a) leftward shift in the supply curve.
(b) rightward shift in the supply curve.
(c) leftward shift in the demand curve.
(d) rightward shift in the demand curve.

Answer: A
Difficulty: 1
Topic: Shocking the Equilibrium
Question Status: Revised

40) Government prohibition of advertising liquor on television would most likely result in

(a) a rightward shift in the demand curve for liquor.
(b) a leftward shift in the demand curve for liquor.
(c) a rightward shift in the demand curve for television advertising time.
(d) no change in the market for either liquor or television advertising.

Answer: B
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

41) From the 1970s through the 1990s, the relative price of a college education has increased greatly. During the same time period, college enrollment has also increased. This evidence suggests that during this time period

(a) the demand curve for a college education has shifted leftward.
(b) the demand curve for a college education has shifted rightward.
(c) the supply curve for a college education has shifted leftward.
(d) the supply curve for a college education has shifted rightward.

Answer: B
Difficulty: 1
Topic: Shocking the Equilibrium
Question Status: Revised

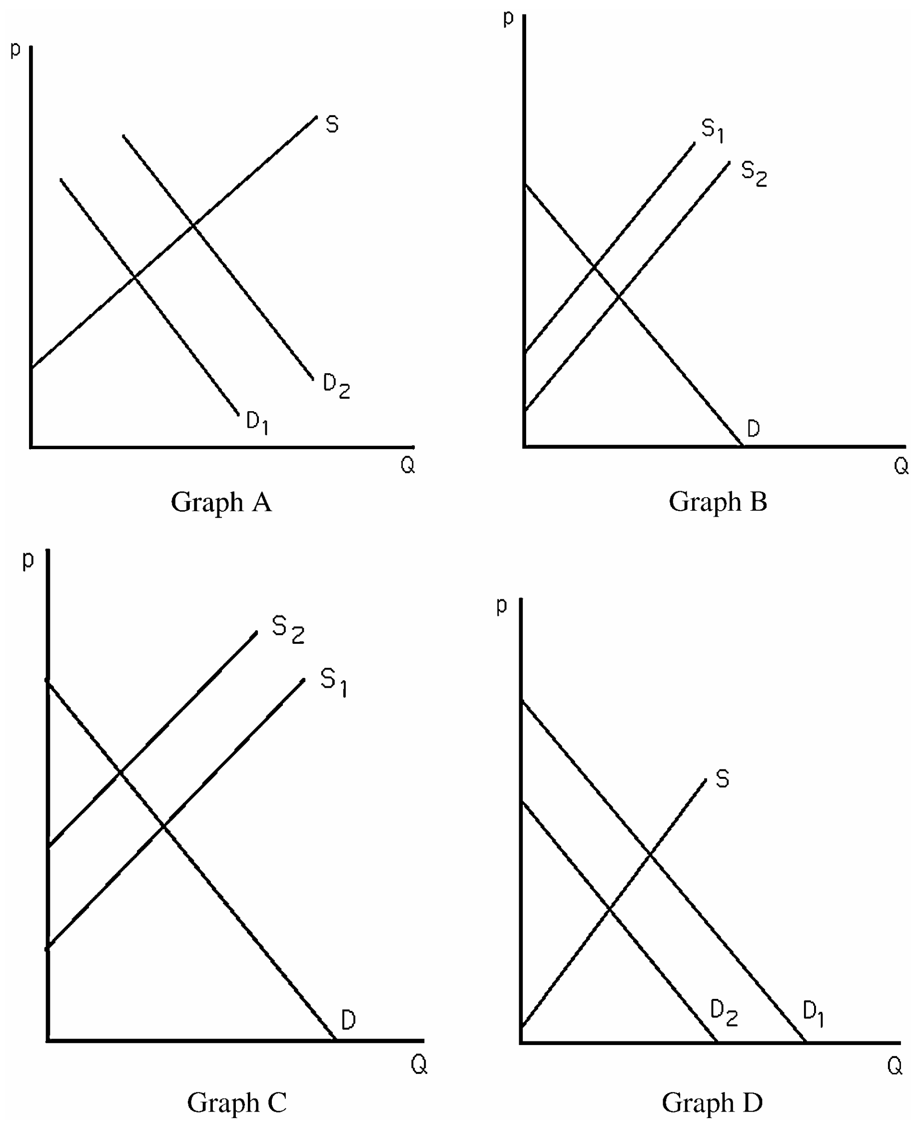

Figure 2.3

42) Figure 2.3 shows four different markets with changes in either the supply curve or the demand curve. Which graph best illustrates the market for coffee after severe weather destroys a large portion of the coffee crop?

(a) graph A
(b) graph B
(c) graph C
(d) graph D

Answer: C
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

43) Figure 2.3 shows four different markets with changes in either the supply curve or the demand curve. Which graph best illustrates the market for tea after severe weather destroys a large portion of the coffee crop?

(a) graph A
(b) graph B
(c) graph C
(d) graph D

Answer: A
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

44) Figure 2.3 shows four different markets with changes in either the supply curve or the demand curve. Which graph best illustrates the market for non-dairy coffee creamer after severe weather destroys a large portion of the coffee crop?

(a) graph A
(b) graph B
(c) graph C
(d) graph D

Answer: D
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

45) Figure 2.3 shows four different markets with changes in either the supply curve or the demand curve. Which graph best illustrates the market for computers after technological advances in making computers occur?

(a) graph A
(b) graph B
(c) graph C
(d) graph D

Answer: B
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

46) Figure 2.3 shows four different markets with changes in either the supply curve or the demand curve. Which graph best illustrates the market for computer manuals after technological advances in making computers occur?

(a) graph A
(b) graph B
(c) graph C
(d) graph D

Answer: A
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

47) Figure 2.3 shows four different markets with changes in either the supply curve or the demand curve. Which graph best illustrates the market for typewriters after technological advances in computerized word-processing software occur?

(a) graph A
(b) graph B
(c) graph C
(d) graph D

Answer: D
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

48) Suppose a market were currently at equilibrium. A rightward shift of the demand curve would cause

(a) an increase in price but a decrease in quantity.
(b) a decrease in price but an increase in quantity.
(c) an increase in both price and quantity.
(d) a decrease in both price and quantity.

Answer: C
Difficulty: 1
Topic: Shocking the Equilibrium
Question Status: Revised

49) Suppose a market were currently at equilibrium. A rightward shift of the supply curve would cause a(n)

(a) increase in price but a decrease in quantity.
(b) decrease in price but an increase in quantity.
(c) increase in both price and quantity.
(d) decrease in both price and quantity.

Answer: B
Difficulty: 1
Topic: Shocking the Equilibrium
Question Status: Revised

50) When import restrictions are placed on a good, and as a result the price of the good increases, the demand curve for that good will

(a) shift rightward.
(b) shift leftward.
(c) become steeper.
(d) be unaffected.

Answer: D
Difficulty: 1
Topic: Shocking the Equilibrium
Question Status: Revised

51) When two goods are substitutes, a shock that raises the price of one good causes the price of the other good to

(a) remain unchanged.
(b) decrease.
(c) increase.
(d) change in an unpredictable manner.

Answer: C
Difficulty: 2
Topic: Shocking the Equilibrium
Question Status: Revised

52) Government actions can cause a

(a) shift in the supply curve.
(b) shift in the demand curve.
(c) reaction from firms in other countries.
(d) all of the above.

Answer: D
Difficulty: 0
Topic: Effects of Government Intervention
Question Status: New

53) Municipalities that have adopted the policy of "rent control" typically set the rentals on certain apartments well below equilibrium. As a result,

(a) landlords have a difficult time finding tenants.
(b) prospective tenants have a difficult time finding available apartments.
(c) there is a surplus of apartments.
(d) All of the above.

Answer: B
Difficulty: 1
Topic: Effects of Government Intervention
Question Status: Revised

54) When "rent controls" result in a shortage of housing, landlords

(a) use criteria other than price to allocate housing.
(b) lower the price to allocate the housing.
(c) attempt to attract renters.
(d) None of the above.

Answer: A
Difficulty: 0
Topic: Effects of Government Interventions
Question Status: Revised

55) A restriction on the number of people allowed to be medical doctors in the United States would most likely

(a) increase doctors' fees.
(b) decrease the demand for doctors.
(c) decrease the demand for nurses.
(d) decrease the number of people who get sick.

Answer: A
Difficulty: 2
Topic: Effects of Government Intervention
Question Status: Revised

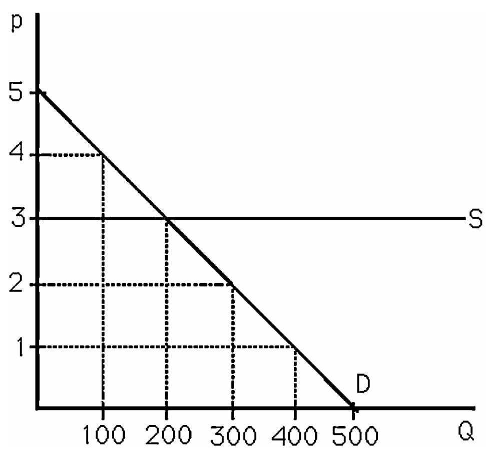

Figure 2.4

56) Figure 2.4 shows the market for crude oil. If a consumer group convinces the government to set a maximum price of $2 per barrel, then

(a) 300 barrels of crude oil will be sold at $2.
(b) zero barrels of crude oil will be sold.
(c) zero barrels of crude oil will be demanded.
(d) None of the above.

Answer: B
Difficulty: 2
Topic: Effects of Government Intervention
Question Status: Revised

57) Figure 2.4 shows the market for crude oil. If the oil exploration firms convince the government to set a minimum price of $4 per barrel, then

(a) 100 barrels of crude oil will be sold at $4.
(b) zero barrels of crude oil will be sold.
(c) zero barrels of crude oil will be demanded.
(d) None of the above.

Answer: A
Difficulty: 2
Topic: Effects of Government Intervention
Question Status: Revised

58) Figure 2.4 shows the market for crude oil. If the government restricts output to no more than 300 barrels, then

(a) 300 barrels of crude oil will be sold at $3.
(b) 200 barrels of crude oil will be sold at $3.
(c) zero barrels of crude oil will be sold.
(d) None of the above.

Answer: B
Difficulty: 2
Topic: Market Equilibrium
Question Status: Revised

59) If a government-imposed price ceiling causes the observed price in a market to be below the equilibrium price,

(a) there will be excess demand.
(b) there will be excess supply.
(c) the curves will shift to make a new equilibrium at the regulated price.
(d) None of the above.

Answer: A
Difficulty: 1
Topic: Effects of Government Intervention
Question Status: Revised

60) In the labor market, if the government imposes a minimum wage that is below the equilibrium wage, then

(a) workers who wish to work at the minimum wage will have a difficult time finding jobs.
(b) firms will hire fewer workers than without the minimum wage law.
(c) some workers may lose their jobs as a result.
(d) nothing will happen to the wage rate or employment.

Answer: D
Difficulty: 1
Topic: Effects of Government Intervention
Question Status: Revised

61) It is appropriate to use the supply and demand model if, in a market,

(a) everyone is a price taker with full information about the price and quality of the good.
(b) firms sell identical products.
(c) costs of trading are low.
(d) All of the above.

Answer: D
Difficulty: 0
Topic: When to Use the Supply and Demand Model
Question Status: Revised

62) Consumers and firms are known as price takers only if

(a) no market exists to determine the equilibrium price.
(b) they can set the market price.
(c) they cannot affect the market price.
(d) excess demand exists.

Answer: C
Difficulty: 0
Topic: When to Use the Supply and Demand Model
Question Status: New

■ True/False/Explain

1) If a good is not produced, then there is no demand for it.

Answer: False. The demand for a product is independent of its supply. It is possible that people want to buy some of the product but at prices that are below what sellers would require to begin production.
Difficulty: 2
Topic: Demand
Question Status: Revised

2) Because people prefer name-brand pain-relieving drugs over store-brand pain-relieving drugs, demand curves do not slope downward for pain-relieving drugs.

Answer: False. Demand curves slope downward assuming all other factors do not change. Consumers may view brand-name drugs to be of higher quality than store-brand drugs, and therefore the demand curve for brand-name drugs lies to the right of the demand curve for store-brand drugs.
Difficulty: 2
Topic: Demand
Question Status: Revised

3) The quantity of a good that consumers demand depends only on the price of the good.

Answer: False. The quantity of a good demanded depends on many factors including: price, consumers' incomes, and the price of related goods.
Difficulty: 1
Topic: Demand
Question Status: New

4) During the winter of 1997-1998, the northeastern United States experienced warmer than usual conditions. The price of home heating oil was less than it was during the previous winter, but people bought less home heating oil. This contradicts the Law of Demand.

Answer: False. The statement claiming a contradiction confuses a change in quantity demanded with a change in the demand curve. The law of demand refers to movements along a given demand curve. The mild weather caused a leftward shift of the demand curve.
Difficulty: 1
Topic: Demand
Question Status: Revised

5) During a mild winter, the price of home heating oil is expected to be less than it would be during a normal winter.

Answer: True. During a mild winter, people do not need to operate their furnace as often as in a normal winter. The demand for home heating oil lies to the left of where it would be under normal weather conditions. As a result, the price of oil falls.
Difficulty: 1
Topic: Shocking the Equilibrium
Question Status: Revised

6) Import quotas on steel tend to result in higher quantities of steel being sold at lower prices than would be observed in the absence of a quota.

Answer: False. The opposite is true. Quotas restrict the supply curve. This reduces quantity and raises price.
Difficulty: 1
Topic: Effects of Government Intervention
Question Status: Revised

7) The supply and demand model may not be appropriate in markets with large transaction costs.

Answer: True. If the costs of finding a trading partner are high, no trades may occur, or trades may occur at a variety of prices.
Difficulty: 1
Topic: When to Use the Supply and Demand Model
Question Status: New

■ Problems

1) Suppose an individual inverse demand curve is given as $P = 2 - 1/2\ q^i$, where q^i is the quantity demanded by individual i. There are 50 individual consumers with this identical, individual inverse demand curve. Solve for the market demand curve.

Answer: Solve for the individual, regular demand curve, $q^i = 4 - 2P$. Multiply the individual demand curve by 50 to yield
$Q^D = 200 - 100P$.
Difficulty: 2
Topic: Demand
Question Status: Revised

2) Suppose the market demand curve for pizza can be expressed as QD = 100 − 2P + 3Pb, where QD is the quantity of pizza demanded, P is the price of a pizza, and Pb is the price of a burrito. What is the slope of this demand curve, and what information does the slope provide?

Answer: The slope is –2. The slope tells us how a change in the price of pizzas affects the quantity of pizzas demanded. An increase in the price of pizzas by $1 will result in a decrease of the quantity demanded by 2 pizzas.
Diff: 1
Topic: Demand
Question Status: Revised

3) Suppose the demand for a particular product can be expressed as Q = 100/p. Calculate the total amount spent on this good when p = 10, 20, and 50. Can you make a generalization about the mathematical form of this demand curve and consumer behavior in this market?

Answer: In all cases, total expenditure equals 100. In general, a nonlinear demand curve of the form Q = A/p means that consumers wish to spend a total of A on this good regardless of its price.
Difficulty: 2
Topic: Demand
Question Status: Revised

4) Suppose the following information is known about a market:

1. Sellers will not sell at all below a price of $2.
2. At a price of $10, any given seller will sell 10 units.
3. There are 100 identical sellers in the market.

Assuming a linear supply curve, use this information to derive the market supply curve.

Answer: First, Q = 100q since all firms are identical. This gives two points: (p = 2, Q = 0) and (p = 10, Q = 1000). From the first point, it is known that p = 2 + bQ. When Q = 1000, 10 = 2 + b(1000). Solving for b yields b = .008. Rearranging to solve for Q yields: Q = –250 + 125p.
Difficulty: 2
Topic: Supply
Question Status: Revised

5) Suppose the market for potatoes can be expressed as follows:

Supply: $Q^S = -20 + 10p$
Demand: $Q^D = 400 - 20p$
Solve for the equilibrium price and quantity.

Answer: Equate the RHS of the supply equation to the RHS of the demand equation: –20 + 10p = 400 – 20p.
Rearrange: 30p = 420 or p = 14. Plug this into either S or D to get Q:
Q = 400 – 20(14) = 120.
Difficulty: 1
Topic: Market Equilibrium
Question Status: Revised

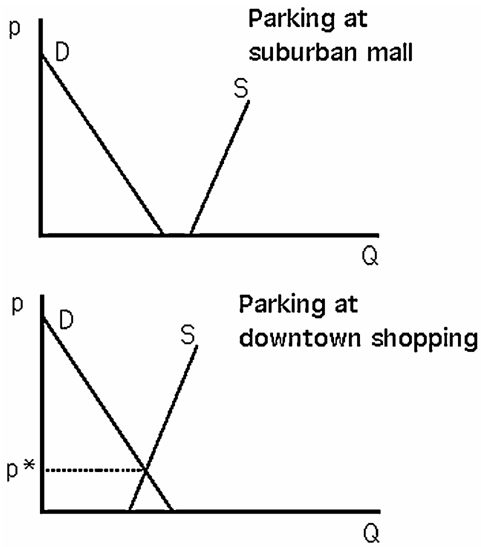

Figure 2.5

6) Use supply-and-demand graphs to explain why parking is free at the suburban shopping mall but one typically must pay to park when shopping downtown.

Answer: See Figure 2.5. At the suburban shopping mall, the only cars typically on the lot belong to shoppers and employees. Mall lots are usually built to be large enough to handle peak crowds. For the relevant quantities, the supply curve is horizontal at a price of zero. As a result, the quantity demanded never exceeds the amount that is provided freely. Downtown, shoppers compete with a larger quantity and greater variety of drivers for parking spaces. The quantity that is available freely is not enough to accommodate all of those who wish to park downtown.
Difficulty: 2
Topic: Market Equilibrium
Question Status: Revised

7) Explain why the equilibrium price is called the market clearing price.

Answer: At the equilibrium price, sellers want to sell the exact amount consumers want to buy. There is no excess demand or excess supply. The market is exactly cleared of all goods.
Difficulty: 1
Topic: Market Equilibrium
Question Status: New

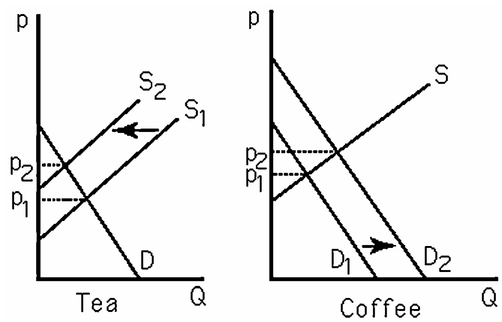

Figure 2.6

8) What happens to the equilibrium price and quantity of coffee when there is a leftward shift of the supply curve for tea? Explain.

Answer: See Figure 2.6. The leftward shift in the supply of tea causes tea prices to increase. Since coffee and tea are substitutes, the demand for coffee increases, resulting in higher coffee prices.
Difficulty: 1
Topic: Shocking the Equilibrium
Question Status: Revised

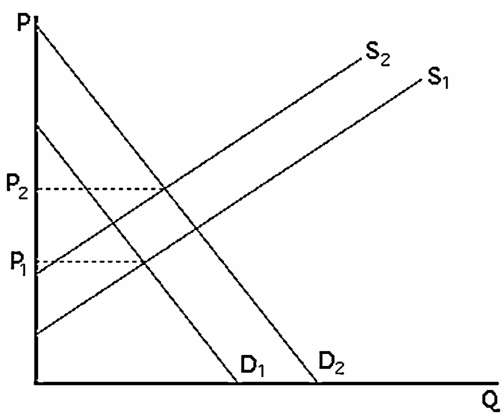

Figure 2.7

9) Suppose there is a linear downward-sloping demand curve and a linear upward-sloping supply curve for a good. The price of a substitute good increases and the price of an input to production also increases. Graph the original demand and supply curves, and the curves after the substitute good and input prices increase. How will the equilibrium price change after the substitute and input prices increase?

Answer: See Figure 2.7. The new demand curve will be to the right of the original demand curve and the new supply curve will be to the left of the original supply curve. The equilibrium price will increase.
Difficulty: 1
Topic: Shocking the Equilibrium
Question Status: Revised

10) Suppose the market for potatoes can be expressed as follows:

Supply: $Q^S = -20 + 10p$
Demand: $Q^D = 400 - 20p$
If the government sets a maximum price of $10 per unit, what will be the quantity demanded and quantity supplied?

Answer: With a maximum price of $10, suppliers will sell only 80 units.
($Q = -20 + 10(10) = 80$). But at a price of $10, buyers wish to purchase 200 units: $Q = 400 - 20(10) = 200$. Thus, there will be excess demand of 120 units.
Difficulty: 1
Topic: Effects of Government Intervention
Question Status: Revised

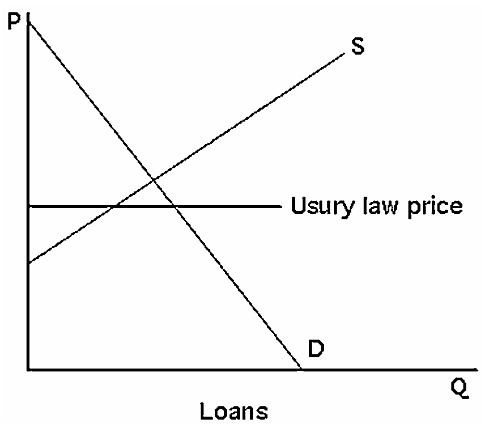

Figure 2.8

11) Usury laws place a ceiling on interest rates that lenders such as banks can charge borrowers. The interest rate is the price of a loan. Graph a binding usury law on the market for loans, and describe the effects of the law on the quantity of loans supplied and the quantity of loans demanded.

Answer: See Figure 2.8. The usury law will result in more loans being demanded and fewer loans being supplied.
Difficulty: 1
Topic: Effects of Government Intervention
Question Status: Revised

12) Suppose the market for potatoes can be expressed as follows:

Supply: QS = $-20 + 10p$
Demand: QD = $400 - 20p$
Suppose the government restricts the quantity to 100 units. What will be the price of potatoes?

Answer: (1) Find the inverse supply curve: $p = 2 + .1Q$ If quantity were restricted to 100 units, sellers would require only $12 per unit. (2) Find the inverse demand curve: $p = 20 - .05Q$. Buyers would be willing to pay $15 per unit and would bid the price up to that amount.
Difficulty: 2
Topic: Effects of Government Intervention
Question Status: Revised

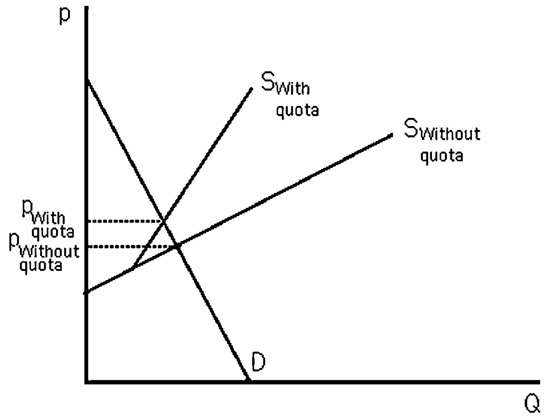

Figure 2.9

13) Use a supply-and-demand graph to predict what happens to sheet steel prices in the United States after quotas on Japanese and European sheet steel expire.

Answer: See Figure 2.9. The quota-restricted supply results in a higher price than the market equilibrium. When the quotas expire, the Japanese and European steel firms export into the United States based upon their own supply curves. The new equilibrium will be at a lower price.

Difficulty: 2

Topic: Effects of Government Intervention

Question Status: Revised

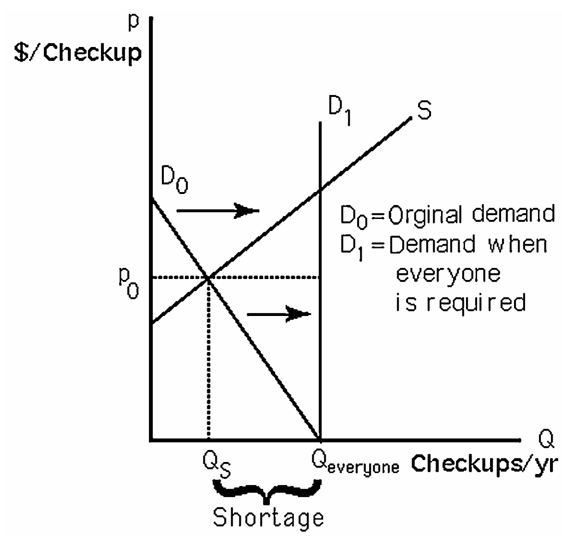

Figure 2.10

14) Assume that the market for annual physical checkups is in equilibrium, and not everyone gets an annual physical checkup. What is the effect on price and quantity if a government regulation fixes price at the current level and requires everyone to get an annual physical checkup?

Answer: See Figure 2.10. Requiring everyone to get a physical would shift the demand curve rightward. With price remaining fixed, a shortage will result.

Difficulty: 2

Topic: Effects of Government Intervention

Question Status: Revised

15) Suppose the market for a good is expressed as follows:

Inverse demand: P = 200 − 2Q

Inverse supply: P = 2Q

What is the equilibrium if the government imposes a supply quota of 75 units?

What is the equilibrium if the government imposes a supply quota of 25 units?

Answer: The market equilibrium with no quota is P = $100 and Q = 50 units. A supply quota of 75 units is not binding so the equilibrium is unchanged. A supply quota of 25 units will change the supply curve. The new supply curve will be the same as the no quota supply curve until 25 units and then it will be vertical. The new equilibrium is P = $150 and Q = 25 units.

Difficulty: 2

Topic: Effects of Government Intervention

Question Status: New