Chapter 2: DEMAND, SUPPLY, AND MARKET EQUILIBRIUM

Multiple Choice

2-1 If the price of a complement for tires decreases, all else equal,
a. quantity demanded for tires will decrease.
b. quantity supplied for tires will decrease.
c. demand for tires will increase.
d. demand for tires will decrease.
e. supply for tires will increase.
Answer: c
Difficulty: 01 Easy
Topic: Demand
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-01

2-2 The market demand curve for a given good shifts when there is a change in any of the following factors EXCEPT
a. the price of the good.
b. the level of consumers' income.
c. the prices of goods related in consumption.
d. the tastes of consumers.
Answer: a
Difficulty: 01 Easy
Topic: Demand
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-01

2-3 Which of the following would DECREASE the demand for tennis balls?
a. An increase in the price of tennis balls
b. A decrease in the price of tennis rackets
c. An increase in the cost of producing tennis balls
d. A decrease in average household income when tennis balls are a normal good

Answer: d
Difficulty: 01 Easy
Topic: Demand
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-01

2-4 If input prices increase, all else equal,
a. quantity supplied will decrease.
b. supply will increase.
c. supply will decrease.
d. demand will decrease.
Answer: c
Difficulty: 01 Easy
Topic: Supply
AACSB: Reflective Thinking

Blooms: Understand
Learning Objective: 02-02

2-5 Which of the following would increase the supply of corn?
a. an increase in the price of pesticides
b. a decrease in the demand for corn
c. a fall in the price of corn
d. a severe drought in the corn belt
e. a decrease in the price of wheat
Answer: e
Difficulty: 02 Medium
Topic: Supply
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-02

2-6 When Sonoma Vineyards reduces the price of its Cabernet Sauvignon from $15 a bottle to $12 a bottle, the result is an increase in
a. the demand for this wine.
b. the supply of this wine.
c. the quantity of this wine demanded.
d. the quantity of this wine supplied.
Answer: c
Difficulty: 02 Medium
Topic: Supply
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-02

2-7 Which of the following will cause a change in quantity supplied?
a. a change in input prices
b. a technological change
c. a change in the number of firms in the market
d. a change in the market price of the good
Answer: d
Difficulty: 01 Easy
Topic: Supply
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-02

2-8 When the average price of videocassette recorders (VCRs) falls, the result is
a. an increase in supply of VCRs.
b. an increase in the quantity of VCRs supplied.
c. an increase in the quantity of VCRs demanded.
d. a decrease in the quantity of VCRs demanded.
Answer: c
Difficulty: 01 Easy
Topic: Demand
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-01

2-9 Use the following general linear demand relation:

$$Q_d = 680 - 9P + 0.006M - 4P_R$$

where M is income and P_R is the price of a related good, R. From this relation it is apparent that the good is:

a. an inferior good
b. a substitute for good R
c. a normal good
d. a complement for good R
e. both *c* and *d*

Answer: e
Difficulty: 02 Medium
Topic: Demand
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-01

2-10 Use the following general linear demand relation:

$$Q_d = 680 - 9P + 0.006M - 4P_R$$

where M is income and P_R is the price of a related good, R. If M = \$15,000 and P_R = \$20, the demand function is

a. $P = 690 - 9Q_d$.
b. $Q_d = 690 - 9P$.
c. $Q_d = 680 - 9P$.
d. $P = 680 - 9Q_d$.
e. $Q_d = 800 - 19P$.

Answer: b
Difficulty: 02 Medium
Topic: Demand
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-01

2-11 Use the following general linear demand relation:

$$Q_d = 680 - 9P + 0.006M - 4P_R$$

where M is income and P_R is the price of a related good, R. If M = \$15,000 and P_R = \$20 and the supply function is $Q_s = 30 + 3P$, equilibrium price and quantity are, respectively,

a. P = \$55 and Q = 195.
b. P = \$6 and Q = 38.
c. P = \$12 and Q = 200.
d. P = \$50 and Q = 170.
e. P = \$40 and Q = 250.

Answer: a
Difficulty: 02 Medium
Topic: Demand
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-01

2-12 Use the following general linear demand relation:

$$Q_d = 680 - 9P + 0.006M - 4P_R$$

where M is income and P_R is the price of a related good, R. If M = \$15,000 and P_R = \$20 and the supply function is $Q_s = 30 + 3P$, then, when the price of the good is \$60,

a. there is a shortage of 60 units of the good.
b. there is equilibrium in the market.
c. there is a surplus of 60 units of the good.
d. the quantities demanded and supplied are indeterminate.

Answer: c
Difficulty: 02 Medium
Topic: Demand
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-01

2-13 Use the following general linear demand relation:

$$Q_d = 680 - 9P + 0.006M - 4P_R$$

where M is income and P_R is the price of a related good, R. If M = \$15,000 and P_R = \$20 and the supply function is $Q_s = 30 + 3P$, then, when the price of the good is \$40,

a. there is equilibrium in the market.
b. there is a shortage of 180 units of the good.
c. there is a surplus of 180 units of the good.
d. there is a shortage of 80 units of the good.

Answer: b
Difficulty: 02 Medium
Topic: Demand
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-01

2-14 Use the following demand and supply functions:

Demand: $Q_d = 50 - 4P$

Supply: $Q_s = 20 + 2P$

Equilibrium price and output are

a. *P* = \$5 and *Q* = 70.
b. *P* = \$11 and *Q* = 3.32.
c. *P* = \$12 and *Q* = 44.
d. *P* = \$15 and *Q* = 50.
e. none of the above

Answer: e
Difficulty: 02 Medium
Topic: Demand
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-01

2-15 Use the following demand and supply functions:

Demand: $Q_d = 50 - 4P$

Supply: $Q_s = 20 + 2P$

If the price is \$10, there is a

a. surplus of 30 units.
b. shortage of 30 units.
c. surplus of 40 units.
d. shortage of 10 units.
e. none of the above

Answer: a
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-03

2-16 Use the following demand and supply functions:

Demand: $Q_d = 50 - 4P$

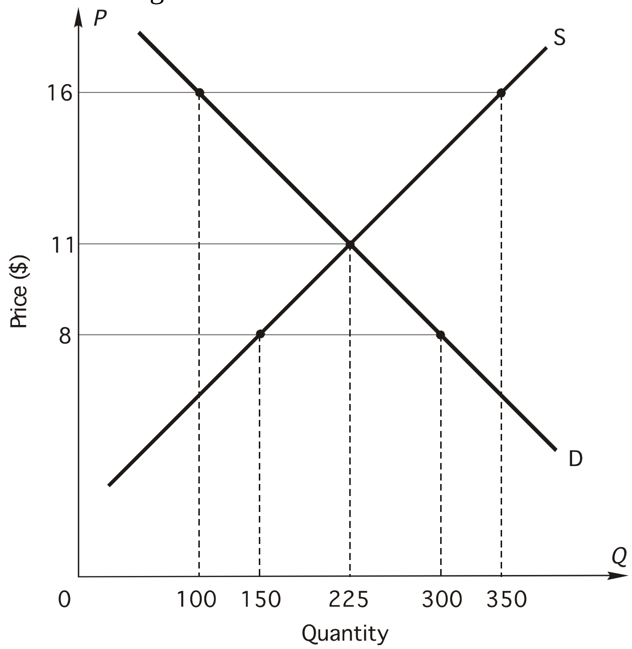
Supply: $Q_s = 20 + 2P$

If the price is \$2, there is a

a. surplus of 10 units.
b. shortage of 10 units.
c. surplus of 30 units.
d. shortage of 18 units.
e. none of the above

Answer: d
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-03

2-17 Refer to the figure below:

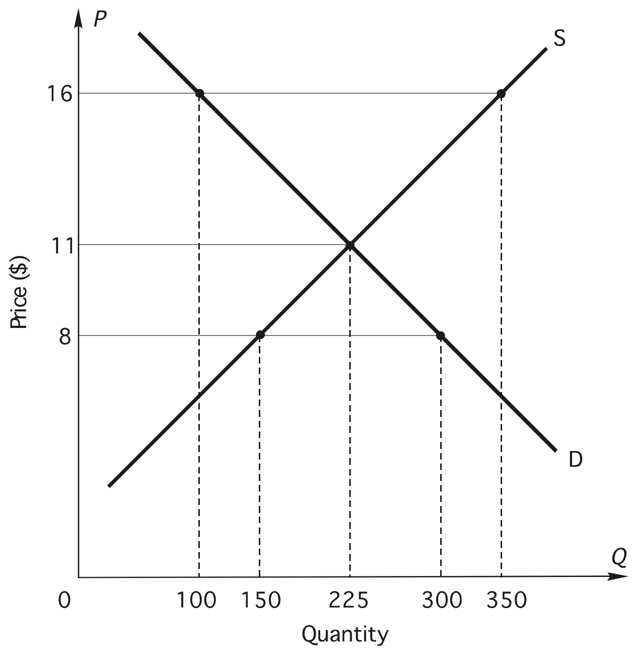


If price is $16 there is

a. a shortage of 250 units.
b. a surplus of 250 units.
c. a shortage of 125 units.
d. a surplus of 125 units.
e. equilibrium in the market.

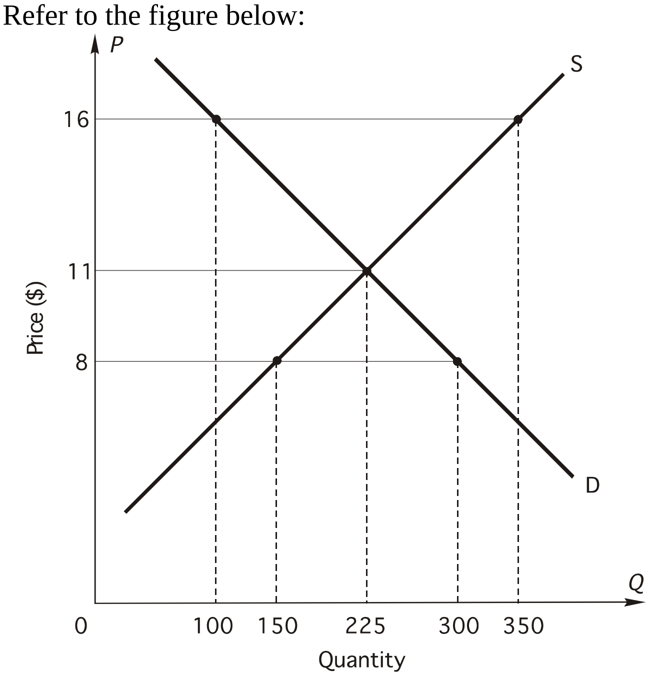
Answer: b
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-03

2-18 Refer to the figure below:



If the price is $16, the resulting
a. surplus will lead to a fall in price.
b. shortage will lead to a fall in price.
c. surplus will lead to a rise in price.
d. shortage will lead to a rise in price.
Answer: a
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-03

2-19 Refer to the figure below:



If price is $8,

a. there will be a surplus of 150 units.
b. there will be a shortage of 150 units.
c. price will fall.
d. shortage of 75 units.
e. surplus of 75 units.

Answer: b
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-20 Suppose that the market for salad dressing is in equilibrium. Then the price of lettuce rises. What will happen?

a. The price of salad dressing will rise.
b. The supply of salad dressing will decrease.
c. The demand for salad dressing will decrease.
d. The quantity demanded of salad dressing will increase.

Answer: c
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-21 Scientists have developed a bacterium they believe will lower the freezing point of agricultural products. This innovation could save farmers $1 billion a year in crops now lost to frost damage. If this technology becomes widely used, what will happen to the equilibrium price and quantity in, for example, the potato market?

a. price will decrease, quantity will decrease
b. price will decrease, quantity will increase
c. price will increase, quantity will decrease
d. price will increase, quantity will increase
e. The change in equilibrium price and quantity is indeterminate.

Answer: b
Difficulty: 02 Medium
Topic: Supply
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-02

2-22 Suppose that the market for engagement rings is in equilibrium. Then political unrest in South Africa shuts down the diamond mines there. South Africa is the world's primary supplier of diamonds. What will happen?

a. The equilibrium quantity of engagement rings will decrease.
b. The equilibrium price of engagement rings will decrease.
c. The demand for engagement rings will decrease.
d. The supply of engagement rings will increase.

Answer: a
Difficulty: 01 Easy
Topic: Supply
AACSB: Analytic
Blooms: Apply

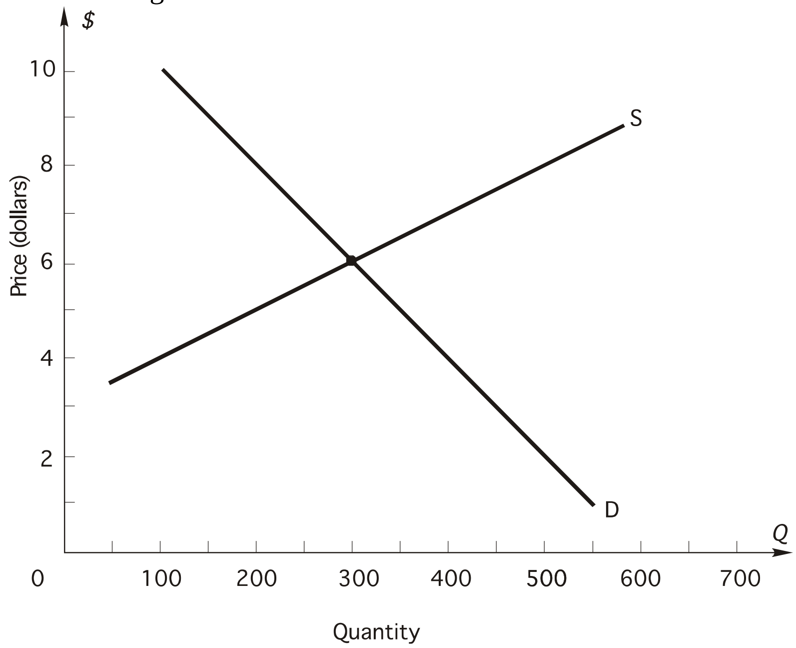
Learning Objective: 02-02

2-23 So long as the actual market price exceeds the equilibrium market price, there will be
a. downward pressure on the price.
b. upward pressure on the price.
c. excess demand.
d. a shortage.
Answer: a
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-24 In which of the following cases will the effect on equilibrium output be indeterminate (i.e., depend on the magnitudes of the shifts in supply and demand)?
a. Demand increases and supply increases
b. Demand decreases and supply decreases
c. Demand decreases and supply increases
d. Demand remains constant and supply increases
Answer: c
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-25 Increases in the wage rates of coal miners and decreases in the price of natural gas would cause the price of coal to
a. rise, fall, or remain unchanged depending on the magnitude of the changes, but the equilibrium quantity of coal would fall.
b. rise, fall, or remain unchanged depending on the magnitude of the changes, but the equilibrium quantity of coal would increase.
c. rise, but the equilibrium quantity of coal would rise or fall depending on the magnitude of the changes.
d. rise, but the equilibrium quantity of coal would fall.
e. fall, but the equilibrium quantity of coal would rise or fall depending on the magnitude of the changes.
Answer: a
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-26 Refer to the figure below:

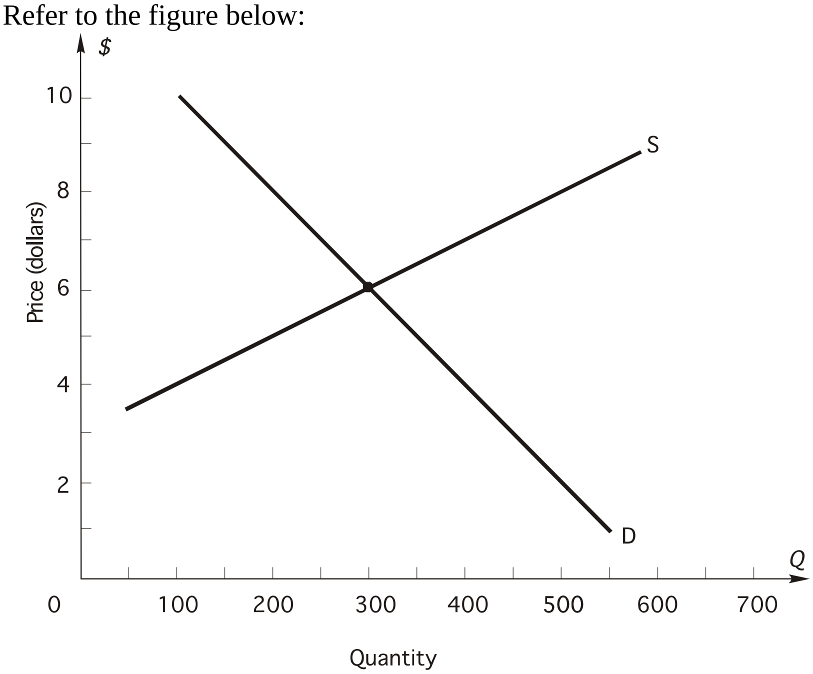


In the figure, the equilibrium price and quantity are

a. P = \$6 and Q = 800.
b. P = \$4 and Q = 300.
c. P = \$4 and Q = 400.
d. P = \$6 and Q = 300.
e. P = \$7 and Q = 800.

Answer: d
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-03

2-27 Refer to the figure below:

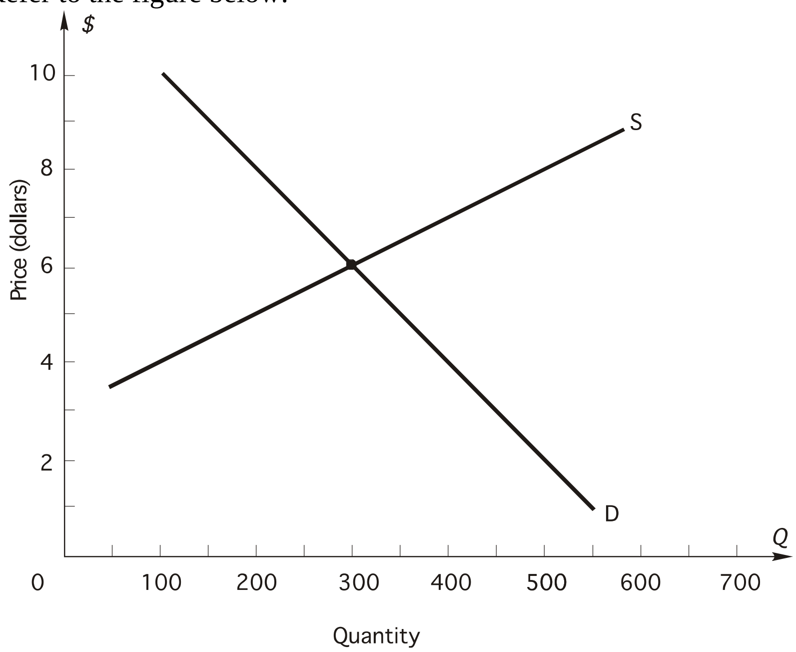


Let demand remain constant at *D*; an increase in wages causes firms to be willing and able to sell 150 fewer units at each price than they were before the wage increase.

a. The new equilibrium price and quantity will be *P* = $6 and *Q* = 150.
b. The new equilibrium price and quantity will be *P* = $6 and *Q* = 400.
c. The new equilibrium price and quantity will be *P* = $7 and *Q* = 250.
d. The new equilibrium price and quantity will be *P* = $8 and *Q* = 300.

Answer: c
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-28 Refer to the figure below:

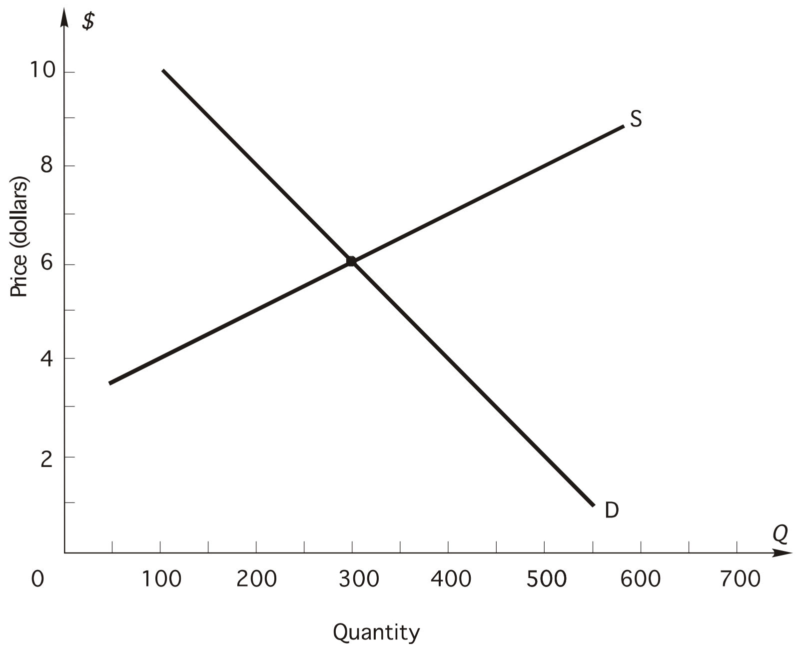


Let supply remain constant at *S*; a decrease in income causes consumers to be willing and able to purchase 150 fewer units at each price than they were previously.

a. The new equilibrium price and quantity will be *P* = $6 and *Q* = 150.
b. The new equilibrium price and quantity will be *P* = $5 and *Q* = 150.
c. The new equilibrium price and quantity will be *P* = $7 and *Q* = 250.
d. The new equilibrium price and quantity will be *P* = $5 and *Q* = 200.

Answer: d
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-29 Refer to the figure below:



Let supply remain constant at *S*; an increase in the price of a substitute good causes consumers to be willing and able to buy 150 more units of the good at each price in the list than they were when demand was *D*. Which of the following statements is (are) true?

a. At the original equilibrium price there will be a shortage of 150.
b. At the original equilibrium price there will be a surplus of 150
c. At the new equilibrium P = $6 and Q = 450.
d. At the new equilibrium P = $7 and Q = 400.
e. both *a* and *d*

Answer: e
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-30 Use the following demand and supply functions:

$$\text{Demand:} \quad Q_d = 900 - 60P$$
$$\text{Supply:} \quad Q_s = -200 + 50P$$

Equilibrium price and output are

a. P = $7 and Q = 480.
b. P = $10 and Q = 300.
c. P = $20 and Q = 150.
d. P = $100 and Q = 5,300.

Answer: b
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-31 Use the following demand and supply functions:

Demand: $Q_d = 900 - 60P$

Supply: $Q_s = -200 + 50P$

If the price is currently $11, there is a
a. surplus of 110 units.
b. shortage of 240 units.
c. surplus of 350 units.
d. shortage of 700 units.
Answer: a
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-32 Use the following demand and supply functions:

Demand: $Q_d = 900 - 60P$

Supply: $Q_s = -200 + 50P$

Let supply remain constant; an increase in income causes consumers to be willing and able to buy 220 more units at each price than they were previously. The new equilibrium price and quantity are
a. *P* = $10 and *Q* = 520.
b. *P* = $12 and *Q* = 400.
c. *P* = $10 and *Q* = 80.
d. *P* = $15 and *Q* = 600.

Answer: b
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-33 A "puppy boom" and an increase in the price of horse meat would cause the market price of dog food to
a. rise, fall, or remain unchanged depending on the magnitude of the changes, and the market output to rise.
b. rise and the market output to rise, fall, or remain unchanged depending on the magnitude of the changes.
c. rise and the market output to rise .
d. fall and the market output to rise, fall, or remain unchanged depending on the magnitude of the changes.
Answer: b
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-34 With a given supply curve, a decrease in demand leads to

a. a decrease in equilibrium price and an increase in equilibrium quantity.
b. an increase in equilibrium price and a decrease in equilibrium quantity.
c. a decrease in equilibrium price and a decrease in equilibrium quantity.
d. no change in price and a decrease in equilibrium quantity.

Answer: c
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-03

2-35 Suppose that more people want Orange Bowl tickets than the number of tickets available. Which of the following statements is correct?

a. There is a shortage of Orange Bowl tickets at the box office price.
b. The box office price is higher than the equilibrium price for Orange Bowl tickets.
c. If the box office price were raised, the excess demand for Orange Bowl tickets would decrease.
d. both *a* and *c*
e. all of the above

Answer: d
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-36 Use the following general linear demand relation:

$$Q_d = 100 - 5P + 0.004M - 5P_R$$

where *P* is the price of good *X*, *M* is income, and P_R is the price of a related good, *R*. What is the demand function when *M* = \$50,000 and P_R = \$10?

a. $Q_d = 350 - 5P$
b $Q_d = 300 - 5P$
c. $Q_d = 200 - 5P$
d. $Q_d = 100 - 5P$
e. none of the above

Answer: e
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-37 Use the following general linear demand relation:

$$Q_d = 100 - 5P + 0.004M - 5P_R$$

where P is the price of good X, M is income, and P_R is the price of a related good, R. From the demand function it is apparent that related good R is

a. normal.
b. inferior.
c. a substitute for good X .
d. a complement for good X.

Answer: d
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-38 Use the following general linear demand relation:

$$Q_d = 100 - 5P + 0.004M - 5P_R$$

where P is the price of good X, M is income, and P_R is the price of a related good, R. If M = \$50,000 and P_R = \$10 and the supply function is $Q_s = 150 + 5P$, market price and output are, respectively,

a. P = \$12 and Q = 150.
b. P = \$10 and Q = 200.
c. P = \$12 and Q = 200.
d. P = \$15 and Q = 175.
e. P = \$15 and Q = 225.

Answer: b
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-39 Use the following general linear demand relation:

$$Q_d = 100 - 5P + 0.004M - 5P_R$$

where P is the price of good X, M is income, and P_R is the price of a related good, R. If income increases to \$100,000 and the price of the related good is now \$20, what is the demand function?

a. $Q_d = 300 - 5P$
b. $Q_d = 400 - 10P$
c. $Q_d = 100 - 10P$
d. $Q_d = 400 - 5P$
e. none of the above

Answer: d
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-40 Use the following general linear demand relation:

$$Q_d = 100 - 5P + 0.004M - 5P_R$$

where P is the price of good X, M is income, and P_R is the price of a related good, R. Income is \$100,000, the price of the related good is \$20, and the supply function is $Q_s = 150 + 5P$. What is the equilibrium price?

a. \$30
b. \$25
c. \$40
d. \$35
e. \$50

Answer: b
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-41 Use the following general linear demand relation:

$$Q_d = 100 - 5P + 0.004M - 5P_R$$

where P is the price of good X, M is income, and P_R is the price of a related good, R. Income is \$80,000, and the price of the related good is \$40. Also let consumers' tastes change so that consumers now demand 100 more units at each price. When the price of the good is \$50, how many units of the good are demanded?

a. 70
b. 200
c. 220
d. 100
e. none of the above

Answer: a
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-42 If a demand curve goes through the point P = \$6 and Q_d = 400, then

a. \$6 is the highest price consumers will pay for 400 units.
b. \$6 is the lowest price consumers can be charged to induce them to buy 400 units.
c. 400 units are the most consumers will buy if price is \$6.
d. consumers will buy more than 400 if price is \$6.
e. both *a* and *c*

Answer: e
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply

Learning Objective: 02-03

2-43 If a supply curve goes through the point P = \$10 and Q_s = 320, then

a. \$10 is the highest price that will induce firms to supply 320 units.
b. \$10 is the lowest price that will induce firms to supply 320 units.
c. at a price higher than \$10 there will be a surplus.
d. at a price lower than \$10 there will be a shortage.
e. both *c* and *d*

Answer: b
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-44 Use the following general linear supply function:

$$Q_s = 40 + 6P - 8P_I + 10F$$

where Q_s is the quantity supplied of the good, P is the price of the good, P_I is the price of an input, and F is the number of firms producing the good. If P_I = \$20 and F = 60 what is the equation of the supply function?

a. $Q_s = 400 + 6P$
b. $Q_s = 40 + 8P$
c. $P = 480 + 6Q_s$
d. $Q_s = 480 + 6P$
e. none of the above

Answer: d
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-45 Use the following general linear supply function:

$$Q_s = 40 + 6P - 8P_I + 10F$$

where Q_s is the quantity supplied of the good, P is the price of the good, P_I is the price of an input, and F is the number of firms producing the good. If P_I = \$20, F = 60, and the demand function is $Q_d = 600 - 6P$ the equilibrium price and quantity are, respectively,

a. P = \$10 and Q = 640.
b. P = \$8 and Q = 326.
c. P = \$10 and Q = 540.
d. P = \$8 and Q = 640.
e. none of the above.

Answer: c
Difficulty: 02 Medium

Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-46 Use the following general linear supply function:

$$Q_s = 40 + 6P - 8P_I + 10F$$

where Q_s is the quantity supplied of the good, *P* is the price of the good, P_I is the price of an input, and *F* is the number of firms producing the good. Now suppose P_I = \$40 and *F* = 50, what is the largest amount of the good that firms will supply when the price of the good is \$20?
a. 340 units
b. 220 units
c. 120 units
d. 80 units
Answer: a
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-47 Use the following general linear supply function:

$$Q_s = 40 + 6P - 8P_I + 10F$$

where Q_s is the quantity supplied of the good, *P* is the price of the good, P_I is the price of an input, and *F* is the number of firms producing the good. When P_I = \$40 and *F* = 50, the INVERSE supply function is
a. $P = –36.667 + 0.1667Q_s$.
b. $P = –220 + 6Q_s$.
c. $P = 220 + 0.1667Q_s$.
d. $P = 220 + 6Q_s$.
Answer: a
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-48 Use the following general linear supply function:

$$Q_s = 40 + 6P - 8P_I + 10F$$

where Q_s is the quantity supplied of the good, *P* is the price of the good, P_I is the price of an input, and *F* is the number of firms producing the good. Suppose P_I = \$40 and *F* = 50, what is the lowest price that will induce firms to supply 400 units of output?
a. \$15

b. $20
c. $25
d. $30
e. $35
Answer: d
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-49 Use the following general linear supply function:

$$Q_s = 40 + 6P - 8P_I + 10F$$

where Q_s is the quantity supplied of the good, P is the price of the good, P_I is the price of an input, and F is the number of firms producing the good. Suppose P_I = $40, F = 50, and the demand function is $Q_d = 700 - 6P$, then if government sets a price of $50 what will be the result?

a. a shortage of 120
b. a surplus of 120
c. a shortage of 160
d. a surplus of 160
Answer: b
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-50 Use the following general linear supply function:

$$Q_s = 40 + 6P - 8P_I + 10F$$

where Q_s is the quantity supplied of the good, P is the price of the good, P_I is the price of an input, and F is the number of firms producing the good. Suppose P_I = $40, F = 50, and the demand function is $Q_d = 700 - 6P$, then if government sets a price of $30 what will be the result?

a. a shortage of 120
b. a surplus of 120
c. a shortage of 160
d. a surplus of 160
Answer: a
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-51 Use the following general linear demand function below:

$$Q_d = a + bP + cM + dP_R$$

where Q_d = quantity demanded, P = the price of the good, M = income, P_R = the price of a good related in consumption. The law of demand requires that

a. $a < 0$.
b. $b < 0$.
c. $P < 0$.
d. $a < 0$ and $b < 0$.
e. $b < 0$ and $P < 0$.

Answer: b
Difficulty: 02 Medium
Topic: Changes in Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-05

2-52 Use the following general linear demand function below:

$$Q_d = a + bP + cM + dP_R$$

where Q_d = quantity demanded, P = the price of the good, M = income, P_R = the price of a good related in consumption. If $c = 15$ and $d = 20$, the good is

a. a normal good.
b. an inferior good.
c. a substitute for good *R*.
d. a complement with good *R*.
e. both *a* and *c*

Answer: e
Difficulty: 02 Medium
Topic: Demand
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-01

2-53 Use the following general linear demand function below:

$$Q_d = a + bP + cM + dP_R$$

where Q_d = quantity demanded, P = the price of the good, M = income, P_R = the price of a good related in consumption. For the general linear demand function given above

a. $\Delta Q_d / \Delta M = c$.
b. *d* is the effect on the quantity demanded of the good of a one-dollar change in the price of the related good, all other things constant.
c. *b* is the effect on the quantity demanded of the good of a one-dollar change in the price of the good, all other things constant.
d. all of the above

Answer: d
Difficulty: 03 Hard
Topic: Demand

AACSB: Analytic
Blooms: Analyze
Learning Objective: 02-01

2-54 If the current price of a good is $10, market demand is $Q_d = 400 - 20P$, and market supply is $Q_s = -50 + 10P$, then

a. more of the good is being produced than people want to buy.
b. a lower price will increase the shortage.
c. at the current price there is excess demand, or a shortage, of 150 units.
d. Both *b* and *c*
e. All of the above

Answer: d
Difficulty: 02 Medium
Topic: Demand
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-01

2-55 Yesterday's newspaper reported the results of a study indicating that people who eat more bananas are more attractive to the opposite sex. What do you expect to happen to the market price and quantity of bananas?

a. price will decrease, quantity will decrease
b. price will decrease, quantity will increase
c. price will increase, quantity will decrease
d. price will increase, quantity will increase

Answer: d
Difficulty: 01 Easy
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-56 If the market price of eggs rises at the same time as the market quantity of eggs purchased decreases, this could have been caused by

a. an increase in demand with no change in supply.
b. a decrease in supply with no change in demand.
c. an increase in supply and an increase in demand.
d. an increase in supply and a decrease in demand.

Answer: b
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-57 Derrick owns and operates a bakery. Every Saturday he bakes a batch of fresh kolaches, and every Saturday he sells all the kolaches and has to turn some customers away. Which of the following statements is correct?

a. At the current price, quantity demanded exceeds quantity supplied.
b. The current price is higher than the equilibrium price.
c. If Derrick lowered the price of kolaches, the shortage would increase.
d. both *a* and *c*

e. all of the above
Answer: d
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-03

2-58 In which of the following cases must price always fall?
a. Demand increases and supply increases.
b. Demand decreases and supply decreases.
c. Supply increases and demand remains constant.
d. Demand decreases and supply increases.
e. Both *c* and *d*
Answer: e
Difficulty: 02 Medium
Topic: Market Equilibrium
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-03

2-59 Consumer surplus
a. is positive for all but the last unit purchased.
b. for a particular unit of consumption is computed by taking the difference between demand price and market price.
c. is the area below demand and above market price over all the units consumed.
d. added to producer surplus provides a measure of the net gain to society from the production and consumption of the good.
e. all of the above
Answer: e
Difficulty: 01 Easy
Topic: Measuring the Value of Market Exchange
AACSB: Reflective Thinking
Blooms: Understand
Learning Objective: 02-04

2-60 If the demand price for the 2,000th unit of a good is \$10, then
a. total consumer surplus for 2,000 units is \$10,000.
b. the economic value of the 2,000th unit is \$10.
c. consumer surplus for the 2,000th unit can be computed by subtracting the supply price for the 2,000th unit.
d. the net gain to society from the production and consumption of the 2,000th unit can be computed by subtracting the supply price from \$10.
e. Both *b* and *d*
Answer: e
Difficulty: 02 Medium
Topic: Measuring the Value of Market Exchange
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-04

2-61 Suppose an individual buyer values a pound of butter at \$10. If the market price of butter is \$8, what is the consumer surplus for this buyer?

a. $0
b. $2
c. $3
d. $4
e. $5
Answer: b
Difficulty: 01 Easy
Topic: Measuring the Value of Market Exchange
AACSB: Reflective Thinking
Blooms: Remember
Learning Objective: 02-04

2-62 If the market price of a good is $150 and the supply price of the good is $70, what is the producer surplus if any?
a. $0
b. $70
c. $80
d. $150
e. $220
Answer: c
Difficulty: 01 Easy
Topic: Measuring the Value of Market Exchange
AACSB: Reflective Thinking
Blooms: Remember
Learning Objective: 02-04

2-63 Suppose the demand and supply curves for good *X* are both *linear*. The demand price for the first unit of *X* is $28, and the supply price for the first unit of *X* is $6. If the equilibrium price for good *X* is $16 and the equilibrium quantity of *X* is 24,000 units, then *total* consumer surplus is $________, *total* producer surplus is $_________, and *total* social surplus is $______________.
a. $28; $6; $16
b. $144,000; $120,000; $264,000
c. $120,000; $144,000; $264,000
d. $672,000; $144,000; $384,000
e. $144,000; $672,000; $384,000
Answer: b
Difficulty: 03 Hard
Topic: Measuring the Value of Market Exchange
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-04

2-64 Suppose there are only three consumers in the market for a good and each consumer will buy only one unit of the good. Their individual economic values for the good are $6, $8, and $12, respectively. If the market price for the good is $10, what is the *total* consumer surplus for the three buyers?
a. $2
b. $4
c. $6
d. $8
e. $12
Answer: a
Difficulty: 02 Medium

Topic: Measuring the Value of Market Exchange
AACSB: Analytic
Blooms: Apply
Learning Objective: 02-04