

**Macroeconomics 2017 (Hubbard)**

**Chapter 4 Economic Efficiency, Government Price Setting, and Taxes**

**4.1 Consumer Surplus and Producer Surplus**

1) The difference between the \_\_\_\_\_ for a good and the \_\_\_\_\_ is called consumer surplus.

- A) highest price a consumer is willing to pay; lowest price a consumer is willing to pay
- B) lowest price a consumer is willing to pay; price the consumer actually pays
- C) highest price a consumer is willing to pay; price the consumer actually pays
- D) price the consumer actually pays; actual cost to the producer

Answer: C

Diff: 1 Page Ref: 110/110

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

2) In cities with rent control, people have an incentive to list their apartments on sites such as Airbnb at rents \_\_\_\_\_ the controlled rates, because rent control causes a \_\_\_\_\_ of apartments.

- A) above; surplus
- B) above; shortage
- C) below; surplus
- D) below; shortage

Answer: B

Diff: 2 Page Ref: 109/109

Topic: Price Ceilings

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

Special Feature: Chapter Opener: The Sharing Economy, Phone Apps, and Rent Control

3) Suppose there are two cities that have rent controlled apartments. In one city (Albany) all apartments are subject to rent control; in the other city (Halftrack) one-half of the apartments are rent controlled. Which of the following is most likely to be true?

- A) It will be difficult to find a rent-controlled apartment in Albany or Halftrack; rents for the Halftrack apartments not subject to controls will be higher than they would be without rent control.
- B) It will be easier to find an affordable apartment in Albany since rents will be low across the board.
- C) It will be easier to find an affordable apartment in Halftrack, either a rent-controlled apartment or another apartment, at a reasonable price.
- D) It will be impossible to rent an apartment in either city at any price.

Answer: A

Diff: 2 Page Ref: 109/109

Topic: Price Ceilings

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

Special Feature: Economics in Your Life: Does Rent Control Make It Easier for You to Find an Affordable Apartment?

4) Juanita goes to the Hardware Emporium to buy a new circular saw. She is willing to pay \$120 for a new saw, but buys one on sale for \$85. Juanita's consumer surplus from the purchase is

- A) \$35.
- B) \$85.
- C) \$120.
- D) \$205.

Answer: A

Diff: 1 Page Ref: 110-111/110-111

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

5) Marco goes to the pet store to buy a dozen Koi fish for his new Koi pond. He is willing to pay \$200 for the dozen fish, but buys them for a total of \$140. Marco's consumer surplus from the purchase is

- A) \$5.
- B) \$60.
- C) \$140.
- D) \$200.

Answer: B

Diff: 1 Page Ref: 110-111/110-111

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

6) Brett buys a new cell phone for \$100. He receives consumer surplus of \$80 from the purchase. How much does Brett value his cell phone?

- A) \$180
- B) \$100
- C) \$80
- D) \$20

Answer: A

Diff: 1 Page Ref: 110-111/110-111

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

7) Monique buys a new television for \$795. She receives consumer surplus of \$355 from the purchase. How much does Monique value her television?

- A) \$355
- B) \$440
- C) \$795
- D) \$1150

Answer: D

Diff: 1 Page Ref: 110/110

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

8) The maximum price that a buyer is willing to pay for a good measures his

- A) consumer surplus.
- B) marginal benefit.
- C) willingness to pay.
- D) producer surplus.

Answer: C

Diff: 1 Page Ref: 110/110

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-11: Explain how to measure consumer preferences and discuss the major theories about consumer choice.

AACSB: Analytical thinking

9) A consumer is willing to purchase a product up to the point where

- A) he spends all of his income.
- B) the marginal benefit is equal to the price of the product.
- C) the quantity demanded is equal to the quantity supplied.
- D) he is indifferent between consuming and saving.

Answer: B

Diff: 1 Page Ref: 110/110

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

10) The additional benefit to a consumer from consuming one more unit of a good or service

- A) is equal to consumer surplus.
- B) is equal to the opportunity cost of consuming the good or service.
- C) is equal to marginal benefit.
- D) is equal to economic surplus.

Answer: C

Diff: 1 Page Ref: 110/110

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

11) Which of the following statements best describes the concept of consumer surplus?

- A) "I paid \$89 for a microwave oven last week. This week the same store is selling the same microwave oven for \$69."
- B) "I sold my hard copy of *Harry Potter and the Half-Blood Prince* to a used book store for \$10 even though I was willing to sell it for \$5."
- C) "Target was having a sale on tube socks so I bought 5 pairs."
- D) "I was going to pay \$200 for new sunglasses that I had seen at the Oakley store but I ended up paying only \$140 for the same sunglasses."

Answer: D

Diff: 1 Page Ref: 110/110

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

12) Each point on a demand curve shows

- A) the willingness of consumers to purchase a product at different prices.
- B) the consumer surplus received from purchasing a given quantity of a product.
- C) the economic surplus received from purchasing a given quantity of a product.
- D) the legally determined maximum price that sellers may charge for a given quantity of a product.

Answer: A

Diff: 2 Page Ref: 110-111/110-111

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

**Table 4-1**

Consumer	Willingness to Pay
Curly	\$50
Moe	30
Larry	15

13) *Refer to Table 4-1.* The table above lists the highest prices three consumers, Curly, Moe, and Larry, are willing to pay for a bottle of champagne. If the price of one of the bottles is \$24 dollars,

- A) Curly will buy two bottles, Moe will buy one bottle and Larry will buy no bottles.
- B) Curly will receive \$26 of consumer surplus from buying one bottle.
- C) Curly and Moe receive a total of \$80 of consumer surplus from buying one bottle each. Larry will buy no bottles.
- D) Larry will receive \$15 of consumer surplus since he will buy no bottles.

Answer: B

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

14) *Refer to Table 4-1.* The table above lists the highest prices three consumers, Curly, Moe, and Larry, are willing to pay for a bottle of champagne. If the price of one of the bottles is \$27 dollars, total consumer surplus will be

- A) \$0.
- B) \$14.
- C) \$26.
- D) \$53.

Answer: C

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

15) *Refer to Table 4-1.* The table above lists the highest prices three consumers, Curly, Moe, and Larry, are willing to pay for a bottle of champagne. If the price of one of the bottles is \$95 dollars, total consumer surplus will be

- A) \$0.
- B) \$35.
- C) \$80.
- D) \$95.

Answer: A

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

16) *Refer to Table 4-1.* The table above lists the highest prices three consumers, Curly, Moe, and Larry, are willing to pay for a bottle of champagne. If the price of the champagne falls from \$24 to \$14

- A) consumer surplus increases from \$32 to \$53.
- B) Curly will buy four bottles; Moe will buy two bottles, and Larry will buy one bottle.
- C) consumer surplus will increase from \$80 to \$95.
- D) Larry and Moe will receive more consumer surplus than Curly.

Answer: A

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

**Table 4-2**

Consumer	Willingness to Pay
Violet	\$48
Walter	40
Xavier	30
Yolanda	24
Zachary	14

17) *Refer to Table 4-2.* The table above lists the highest prices five consumers are willing to pay for a concert ticket. If the price of one of the tickets is \$36

- A) Violet and Walter will each buy two tickets.
- B) Walter will receive \$4 of consumer surplus from buying one ticket.
- C) Violet and Walter receive a total of \$52 of consumer surplus from buying one ticket each. No one else will buy a ticket.
- D) Xavier, Yolanda, and Zachary will receive a total of \$68 of consumer surplus since they will buy no tickets.

Answer: B

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

18) **Refer to Table 4-2.** The table above lists the highest prices five consumers are willing to pay for a concert ticket. If the price of one of the tickets is \$20

- A) everyone will buy a ticket except for Zachary.
- B) only Violet and Walter will buy tickets.
- C) Xavier's consumer surplus is \$50.
- D) the total consumer surplus from the purchase of tickets will be \$122.

Answer: A

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

19) **Refer to Table 4-2.** The table above lists the highest prices five consumers are willing to pay for a concert ticket. If the price of one ticket is \$50

- A) everyone will buy a ticket.
- B) consumer surplus will be maximized.
- C) Violet's consumer surplus is \$2.
- D) no one will buy a ticket.

Answer: D

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

20) **Refer to Table 4-2.** The table above lists the highest prices five consumers are willing to pay for a concert ticket. If the price of one ticket rises from \$20 to \$38

- A) only three tickets will be sold.
- B) consumer surplus decreases from \$62 to \$12.
- C) consumer surplus increases from \$88 to \$142.
- D) no one will buy a ticket.

Answer: B

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

21) **Refer to Table 4-2.** The table above lists the highest prices five consumers are willing to pay for a concert ticket. If the price of one ticket falls from \$50 to \$20

- A) only three tickets will be sold.
- B) consumer surplus decreases from \$48 to \$24.
- C) consumer surplus increases from \$0 to \$62.
- D) everyone will buy a ticket.

Answer: C

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

- 22) The additional cost to a firm of producing one more unit of a good or service is the
- A) minimum cost.
  - B) total cost.
  - C) opportunity cost.
  - D) marginal cost.

Answer: D

Diff: 1 Page Ref: 113/113

Topic: Marginal Cost

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

**Table 4-3**

Marko's Polos	Marginal Cost (dollars)
1st shirt	\$7
2nd shirt	10
3rd shirt	15
4th shirt	20

- 23) *Refer to Table 4-3.* The table above lists the marginal cost of polo shirts by Marko's, a firm that specializes in producing men's clothing. If the market price of Marko's polo shirts is \$18
- A) Marko's will produce four shirts.
  - B) producer surplus from the first shirt is \$18.
  - C) producer surplus will equal \$22.
  - D) there will be a surplus; as a result, the price will fall to \$7.

Answer: C

Diff: 3 Page Ref: 113-114/113-114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

- 24) *Refer to Table 4-3.* The table above lists the marginal cost of polo shirts by Marko's, a firm that specializes in producing men's clothing. If the price of polo shirts increases from \$15 to \$20
- A) consumers will buy no polo shirts.
  - B) the marginal cost of producing the third polo shirt will increase to \$20.
  - C) producer surplus will rise from \$13 to \$28.
  - D) there will be a surplus of polo shirts.

Answer: C

Diff: 3 Page Ref: 113-114/113-114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

25) *Refer to Table 4-3.* The table above lists the marginal cost of polo shirts by Marko's, a firm that specializes in producing men's clothing. If the market price of Marko's polo shirts is \$13, Marko's will produce

- A) 1 shirt.
- B) 2 shirts.
- C) 3 shirts.
- D) 4 shirts.

Answer: B

Diff: 2 Page Ref: 113-114/113-114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

26) *Refer to Table 4-3.* The table above lists the marginal cost of polo shirts by Marko's, a firm that specializes in producing men's clothing. If the market price of Marko's polo shirts is \$30, Marko's will produce

- A) 0 shirts.
- B) 1 shirt.
- C) 3 shirts.
- D) 4 shirts.

Answer: D

Diff: 2 Page Ref: 113-114/113-114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

27) *Refer to Table 4-3.* The table above lists the marginal cost of polo shirts by Marko's, a firm that specializes in producing men's clothing. If the market price of Marko's polo shirts is \$30, producer surplus is

- A) \$0.
- B) \$16.
- C) \$52.
- D) \$68.

Answer: D

Diff: 2 Page Ref: 113-114/113-114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking



28) *Refer to Table 4-3.* The table above lists the marginal cost of polo shirts by Marko's, a firm that specializes in producing men's clothing. If the price of polo shirts decreases from \$15 to \$10

- A) consumers will buy no polo shirts.
- B) the marginal cost of producing the third polo shirt will increase to \$25.
- C) producer surplus will fall from \$13 to \$3.
- D) there will be a shortage of polo shirts.

Answer: C

Diff: 3 Page Ref: 113-114/113-114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

29) The area above the market supply curve and below the market price

- A) is equal to the total amount of producer surplus in a market.
- B) is equal to the marginal cost of the last unit produced.
- C) is equal to the total amount of economic surplus in a market.
- D) is equal to the total cost of production.

Answer: A

Diff: 1 Page Ref: 114/114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

30) Consumer surplus in a market for a product would be equal to the area under the demand curve if

- A) producer surplus was equal to zero.
- B) marginal cost was equal to the market price.
- C) the product was produced in a perfectly competitive market.
- D) the market price was zero.

Answer: D

Diff: 2 Page Ref: 112/112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

31) Which of the following statements is *not* true?

- A) Consumer surplus measures the difference between the highest price a consumer is willing to pay for a product and the price she actually pays.
- B) Marginal benefit is the additional benefit to a consumer from consuming one more unit of a product.
- C) Consumer surplus measures the net benefit from participating in a market.
- D) Producer surplus measures the total benefit received by producers from participating in a market.

Answer: D

Diff: 2 Page Ref: 113/113

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

32) A supply curve shows

- A) the quantities sold at different prices.
- B) the marginal cost of producing one more unit of a good or service.
- C) the marginal benefit from buying one more unit of a good or service.
- D) the total cost of producing different quantities of a good or service.

Answer: B

Diff: 1 Page Ref: 113/113

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-12: Apply methods for measuring and analyzing the effects of inputs and costs on the supply curve.

AACSB: Analytical thinking

33) The willingness of consumers to buy a product at different prices is shown on a

- A) demand curve.
- B) supply curve.
- C) production possibilities frontier.
- D) marginal cost curve.

Answer: A

Diff: 1 Page Ref: 110/110

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

Figure 4-1

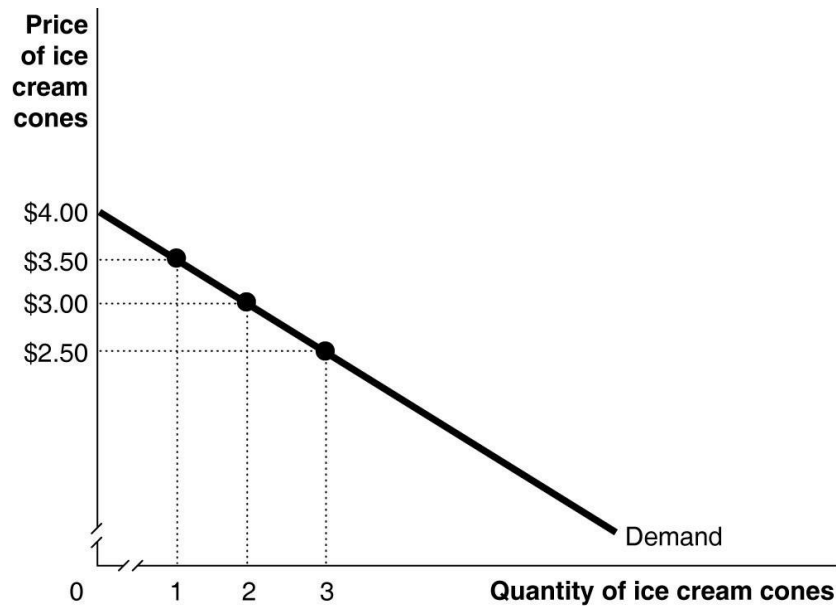


Figure 4-1 shows Kendra's demand curve for ice cream cones.

34) Refer to Figure 4-1. Kendra's marginal benefit from consuming the first ice cream cone is

- A) \$9.00
- B) \$7.50
- C) \$3.50
- D) \$0.50

Answer: C

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

35) Refer to Figure 4-1. Kendra's marginal benefit from consuming the second ice cream cone is

- A) \$6.50
- B) \$6.00
- C) \$3.00
- D) \$2.25

Answer: C

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

36) *Refer to Figure 4-1.* Kendra's marginal benefit from consuming the third ice cream cone is

- A) \$13.00
- B) \$2.50
- C) \$1.50
- D) \$0.50

Answer: B

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

37) *Refer to Figure 4-1.* If the market price is \$2.50, what is the consumer surplus on the first ice cream cone?

- A) \$0.50
- B) \$1.00
- C) \$3.50
- D) \$9.00

Answer: B

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

38) *Refer to Figure 4-1.* If the market price is \$2.50, what is the consumer surplus on the second ice cream cone?

- A) \$0.50
- B) \$1.50
- C) \$3.00
- D) \$10.50

Answer: A

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

39) *Refer to Figure 4-1.* If the market price is \$2.50, what is the consumer surplus on the third ice cream cone?

- A) \$0
- B) \$0.50
- C) \$1.50
- D) \$2.50

Answer: A

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

40) *Refer to Figure 4-1.* If the market price is \$2.50, what is Kendra's consumer surplus?

- A) \$9.00
- B) \$7.50
- C) \$1.50
- D) \$0

Answer: C

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

41) *Refer to Figure 4-1.* If the market price is \$3.50, what is the consumer surplus on the first ice cream cone?

- A) \$0
- B) \$0.50
- C) \$3.50
- D) \$9.00

Answer: A

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

42) *Refer to Figure 4-1.* If the market price is \$3.50, what is Kendra's consumer surplus?

- A) \$9.00
- B) \$7.50
- C) \$3.50
- D) \$0

Answer: D

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

43) *Refer to Figure 4-1.* If the market price is \$3.00, what is the consumer surplus on the first ice cream cone?

- A) \$0.50
- B) \$1.00
- C) \$5.50
- D) \$9.00

Answer: A

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

44) *Refer to Figure 4-1.* If the market price is \$3.00, what is the consumer surplus on the second ice cream cone?

- A) \$0
- B) \$0.50
- C) \$3.00
- D) \$5.50

Answer: A

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

45) *Refer to Figure 4-1.* If the market price is \$3.00, what is Kendra's consumer surplus?

- A) \$6.50
- B) \$5.50
- C) \$2.50
- D) \$0.50

Answer: D

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

46) *Refer to Figure 4-1.* What is the total amount that Kendra is willing to pay for 1 ice cream cone?

- A) \$0.50
- B) \$3.50
- C) \$9.00
- D) \$13.50

Answer: B

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

47) *Refer to Figure 4-1.* What is the total amount that Kendra is willing to pay for 2 ice cream cones?

- A) \$1.50
- B) \$3.00
- C) \$5.50
- D) \$6.50

Answer: D

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

48) *Refer to Figure 4-1.* What is the total amount that Kendra is willing to pay for 3 ice cream cones?

- A) \$2.50
- B) \$7.50
- C) \$9.00
- D) \$13.50

Answer: C

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

49) *Refer to Figure 4-1.* If the market price is \$2.50, what is the maximum number of ice cream cones that Kendra will buy?

- A) 1
- B) 2
- C) 3
- D) 4

Answer: C

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

50) *Refer to Figure 4-1.* If the market price is \$3.50, what is the maximum number of ice cream cones that Kendra will buy?

- A) 1
- B) 2
- C) 3
- D) 4

Answer: A

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

51) *Refer to Figure 4-1.* If the market price is \$4.00, what is the maximum number of ice cream cones that Kendra will buy?

- A) 0
- B) 2
- C) 3
- D) 4

Answer: A

Diff: 1 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

52) Suppliers will be willing to supply a product in all of the following situations *except* when

- A) the price received is greater than the additional cost of producing the product.
- B) the price received is at least equal to the additional cost of producing the product.
- C) the price received is equal to the additional cost of producing the product.
- D) the price received is less than the additional cost of producing the product.

Answer: D

Diff: 1 Page Ref: 113/113

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

53) The difference between the lowest price a firm would have been willing to accept and the price it actually receives from the sale of a product is called

- A) producer surplus.
- B) profit.
- C) marginal revenue.
- D) price differential.

Answer: A

Diff: 1 Page Ref: 113/113

Topic: Producer Surplus

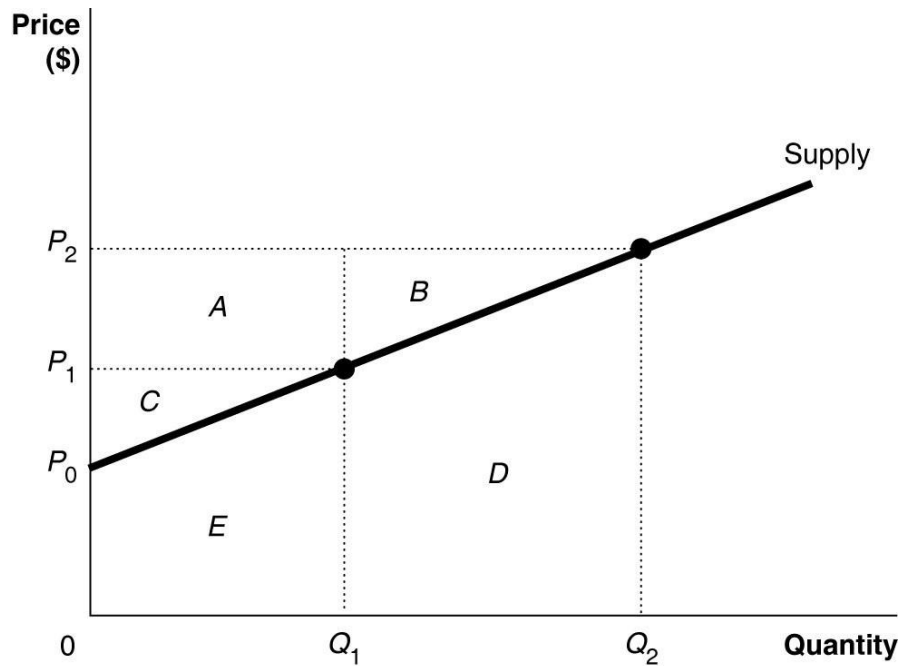
\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking



Figure 4-2



54) Refer to Figure 4-2. What area represents producer surplus at a price of  $P_1$ ?

- A) C
- B)  $A + C$
- C)  $C + E$
- D)  $A + C + E$

Answer: A

Diff: 1 Page Ref: 113-114/113-114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

55) Refer to Figure 4-2. What area represents the decrease in producer surplus when the market price falls from  $P_2$  to  $P_1$ ?

- A)  $C + E$
- B)  $A + C + E$
- C)  $A + B$
- D)  $B + D$

Answer: C

Diff: 2 Page Ref: 113-114/113-114

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

56) Two economists from Northwestern University estimated the benefit households received from subscribing to broadband Internet service. They found that in the year they analyzed, 47 million consumers paid an average of \$36 per month to subscribe to a broadband Internet service, and estimated the value of total consumer surplus for these subscribers was equal to \$890.4 million. Based on these numbers, what was the average monthly consumer surplus per subscriber for broadband Internet service?

- A) \$0.05
- B) \$0.77
- C) \$13.06
- D) \$18.94

Answer: D

Diff: 2 Page Ref: 112-113/112-113

Topic: Consumer Surplus

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

Special Feature: Making the Connection: The Consumer Surplus from Broadband Internet Service

57) Producer surplus is the difference between the highest price someone is willing to pay and the price he actually pays.

Answer: FALSE

Diff: 1 Page Ref: 113/113

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

58) Producer surplus is the difference between the highest price a firm is willing to accept for a product and the price it actually receives for the product.

Answer: FALSE

Diff: 1 Page Ref: 113/113

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

59) The total amount of producer surplus in a market is equal to the area above the market supply curve and below the market price.

Answer: TRUE

Diff: 1 Page Ref: 113/113

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

60) The total amount of consumer surplus in a market is equal to the area below the market demand curve and above the market price.

Answer: TRUE

Diff: 1 Page Ref: 112/112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

61) The additional cost to a firm of producing one more unit of a good or service is equal to producer surplus.

Answer: FALSE

Diff: 1 Page Ref: 113/113

Topic: Producer Surplus

\*: Recurring

Learning Outcome: Micro-12: Apply methods for measuring and analyzing the effects of inputs and costs on the supply curve.

AACSB: Analytical thinking

62) The additional benefit to a consumer from consuming one more unit of a good or service is the marginal benefit.

Answer: TRUE

Diff: 1 Page Ref: 110/110

Topic: Marginal Benefit

\*: Recurring

Learning Outcome: Micro-12: Apply methods for measuring and analyzing the effects of inputs and costs on the supply curve.

AACSB: Analytical thinking

63) What is consumer surplus? Why would policy makers be interested in consumer surplus?

Answer: Consumer surplus is the difference between what a consumer is willing to pay for a product and what she actually pays for the product. Since consumer surplus measures the benefit that consumers receive from a good as they themselves perceive it, it serves as a good measure of economic well-being. Thus, if policy makers care about consumer preferences, they could use this measure to make normative judgments about market outcomes.

Diff: 2 Page Ref: 110/110

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

64) What is marginal cost? Which curve is also referred to as the marginal cost curve?

Answer: Marginal cost is the additional cost to a firm of producing one more unit of a good or service. The supply curve is also referred to as the marginal cost curve.

Diff: 2 Page Ref: 113/113

Topic: Marginal Cost

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

65) What area on a supply and demand graph represents producer surplus?

Answer: Producer surplus is the area above the supply curve and below the market price.

Diff: 2 Page Ref: 114/114

Topic: Producer Surplus

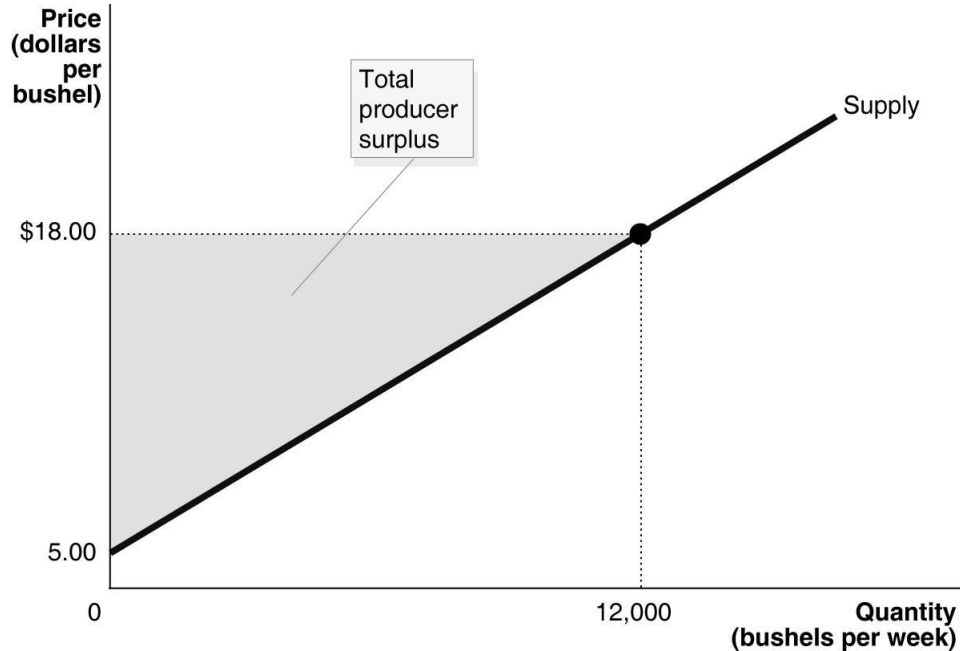
\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

66) Assume the market price for tangerines is \$18.00 per bushel. At the market price, tangerine growers are willing to supply a quantity of 12,000 bushels per week. The quantity supplied drops to zero when the price falls to \$5.00 per bushel. Construct a graph showing this data, calculate the total producer surplus in the market for tangerines, and show the total producer surplus on the graph.

Answer:



The total producer surplus is  $(1/2 \times \$13 \times 12,000) = \$78,000$ .

Diff: 2 Page Ref: 113-114/113-114

Topic: Producer Surplus

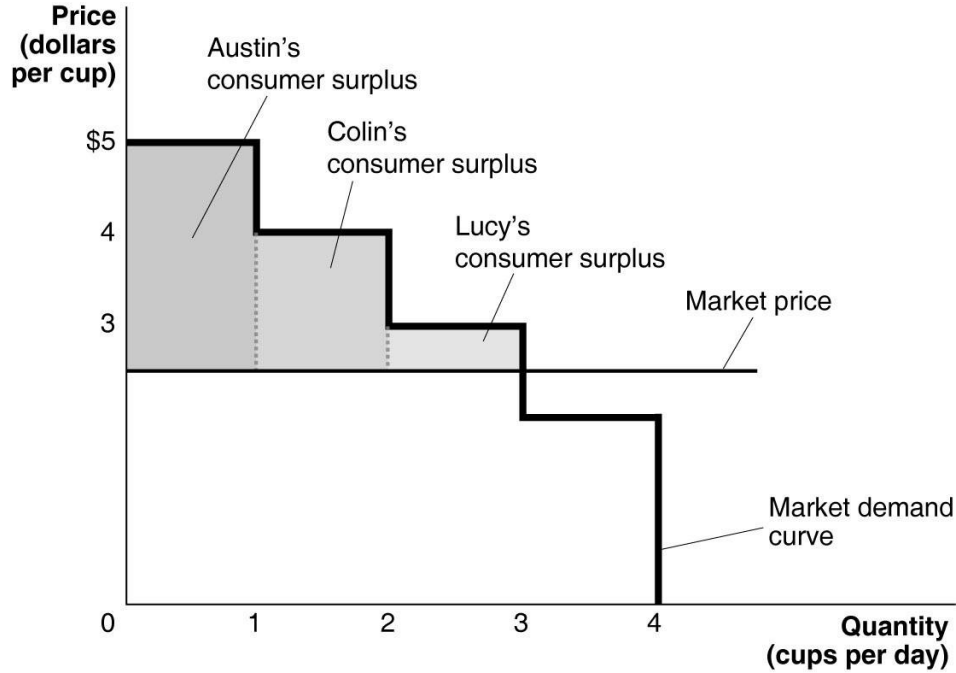
\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

67) The market price for coffee is \$2.25 per cup. Austin is willing to pay \$5.00 per cup, Colin is willing to pay \$4.00 per cup, Lucy is willing to pay \$3.00 per cup, and Ike is willing to pay \$2.00 per cup. Construct a graph showing the consumer surplus for each cup of coffee purchased. How many cups of coffee will be purchased? What is the value of the consumer surplus each of the four consumers receives from their coffee purchases?

Answer:



3 cups of coffee will be purchased. Austin's consumer surplus is \$2.75. Colin's consumer surplus is \$1.75. Lucy's consumer surplus is \$0.75. Ike receives no consumer surplus since he will not be willing to purchase a cup of coffee.

Diff: 2 Page Ref: 111-112/111-112

Topic: Consumer Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

## 4.2 The Efficiency of Competitive Markets

1) In a competitive market equilibrium the \_\_\_\_\_ equals the \_\_\_\_\_ of the last unit sold.

- A) total profit; marginal benefit
- B) total cost; marginal cost
- C) profit; selling price
- D) marginal benefit; marginal cost

Answer: D

Diff: 1 Page Ref: 115/115

Topic: Competitive Equilibrium

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

2) When the marginal benefit equals the marginal cost of the last unit sold in a competitive market

- A) the net benefit of consumers is equal to the net benefit of producers.
- B) an economically efficient level of output is produced.
- C) producer surplus is equal to consumer surplus.
- D) total benefit is equal to total cost.

Answer: B

Diff: 1 Page Ref: 117/117

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

Figure 4-3

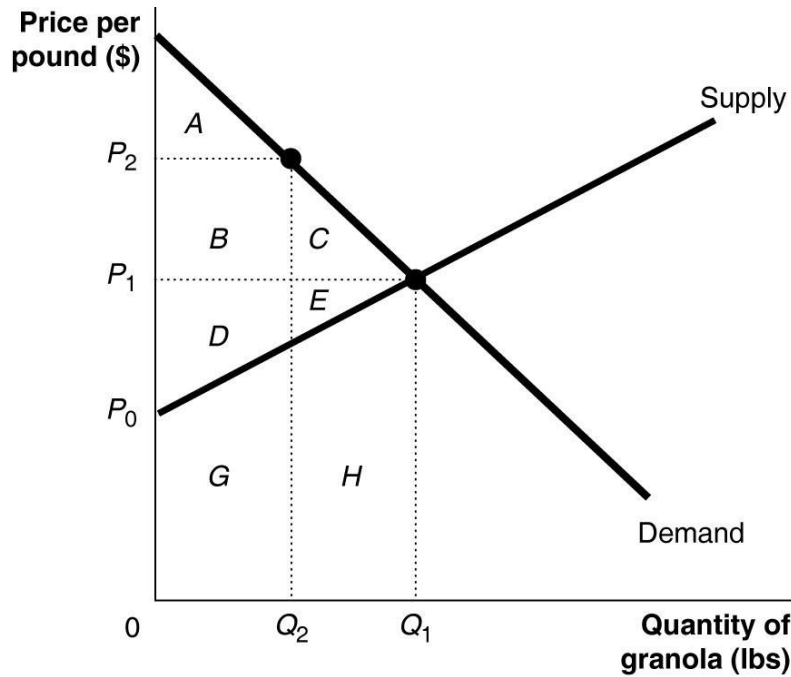


Figure 4-3 shows the market for granola. The market is initially in equilibrium at a price of  $P_1$  and a quantity of  $Q_1$ . Now suppose producers decide to cut output to  $Q_2$  in order to raise the price to  $P_2$ .

3) Refer to Figure 4-3. What area represents consumer surplus at  $P_2$ ?

- A) A
- B) A + B
- C) B + C
- D) A + B + D + E

Answer: A

Diff: 1 Page Ref: 116-117/116-117

Topic: Economic Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

4) Refer to Figure 4-3. What area represents producer surplus at  $P_2$ ?

- A) A + B + D
- B) B + D
- C) B + D + G
- D) B + C + D + E

Answer: B

Diff: 1 Page Ref: 116-117/116-117

Topic: Economic Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

5) *Refer to Figure 4-3.* What area represents the deadweight loss at  $P_2$ ?

- A)  $C + E + H$
- B)  $G + H$
- C)  $C + E$
- D)  $B + C$

Answer: C

Diff: 1 Page Ref: 116-117/116-117

Topic: Deadweight Loss

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

6) *Refer to Figure 4-3.* At the price  $P_2$ , consumers are willing to buy the  $Q_2$  pounds of granola. Is this an economically efficient quantity?

- A) No, the marginal benefit of the last unit ( $Q_2$ ) exceeds the marginal cost of that last unit.
- B) Yes, otherwise consumers would not buy  $Q_2$  units.
- C) Yes, because the price  $P_2$  shows what consumers are willing to pay for the product.
- D) No, the marginal cost of the last unit ( $Q_2$ ) exceeds the marginal benefit of the last unit.

Answer: A

Diff: 1 Page Ref: 116-117/116-117

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

7) *Refer to Figure 4-3.* What area represents consumer surplus at the equilibrium price of  $P_1$ ?

- A)  $A$
- B)  $A + B + C$
- C)  $D + E$
- D)  $A + B + C + D + E$

Answer: B

Diff: 1 Page Ref: 116-117/116-117

Topic: Economic Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

8) *Refer to Figure 4-3.* What area represents producer surplus at the equilibrium price of  $P_1$ ?

- A)  $A + B + D$
- B)  $D + E$
- C)  $D + E + G + H$
- D)  $A + B + C + D + E$

Answer: B

Diff: 1 Page Ref: 116-117/116-117

Topic: Economic Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking



9) *Refer to Figure 4-3.* What area represents the deadweight loss at the equilibrium price of  $P_1$ ?

- A)  $C + E + H$
- B)  $G + H$
- C)  $C + E$
- D) There is no deadweight loss at the price of  $P_1$ .

Answer: D

Diff: 1 Page Ref: 116-117/116-117

Topic: Deadweight Loss

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

10) *Refer to Figure 4-3.* At the equilibrium price of  $P_1$ , consumers are willing to buy  $Q_1$  pounds of granola. Is this an economically efficient quantity?

- A) No, the marginal benefit of the last unit ( $Q_1$ ) exceeds the marginal cost of that last unit.
- B) Yes, because marginal cost is zero at the price of  $P_1$ .
- C) Yes, because  $P_1$  is the price where marginal benefit equals marginal cost.
- D) No, the marginal cost of the last unit ( $Q_1$ ) exceeds the marginal benefit of the last unit.

Answer: C

Diff: 1 Page Ref: 116-117/116-117

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

11) Deadweight loss refers to

- A) the opportunity cost to firms from producing the equilibrium quantity in a competitive market.
- B) the sum of consumer and producer surplus.
- C) the loss of economic surplus when the marginal benefit equals the marginal cost of the last unit produced.
- D) the reduction in economic surplus resulting from not being in competitive equilibrium.

Answer: D

Diff: 1 Page Ref: 117/117

Topic: Deadweight Loss

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

12) The sum of consumer surplus and producer surplus is equal to

- A) the deadweight loss.
- B) the economic surplus.
- C) zero.
- D) total profit.

Answer: B

Diff: 1 Page Ref: 116/116

Topic: Economic Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

- 13) Economic surplus is maximized in a competitive market when
- A) demand is equal to supply.
  - B) the deadweight loss equals the sum of consumer surplus and producer surplus.
  - C) marginal benefit equals marginal cost.
  - D) producers sell the quantity that consumers are willing to buy.

Answer: C

Diff: 2 Page Ref: 116/116

Topic: Economic Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

- 14) \_\_\_\_\_ is defined as a market outcome in which the marginal benefit to consumers of the last unit produced is equal to the marginal cost of production, and in which the sum of consumer surplus and producer surplus is at a maximum.

- A) Economic efficiency
- B) Consumer efficiency
- C) Producer efficiency
- D) Deadweight efficiency

Answer: A

Diff: 2 Page Ref: 117/117

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

- 15) If, in a competitive market, marginal benefit is greater than marginal cost
- A) the net benefit to consumers from participating in the market is greater than the net benefit to producers.
  - B) the government must force producers to lower price in order to achieve economic efficiency.
  - C) the quantity sold is greater than the equilibrium quantity.
  - D) the quantity sold is less than the equilibrium quantity.

Answer: D

Diff: 3 Page Ref: 115/115

Topic: Competitive Equilibrium

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

- 16) In a competitive market the \_\_\_\_\_ curve shows the marginal benefit received by consumers and the \_\_\_\_\_ curve shows the marginal cost to producers.

- A) demand; supply
- B) supply; demand
- C) demand; market demand
- D) supply; market supply

Answer: A

Diff: 1 Page Ref: 115/115

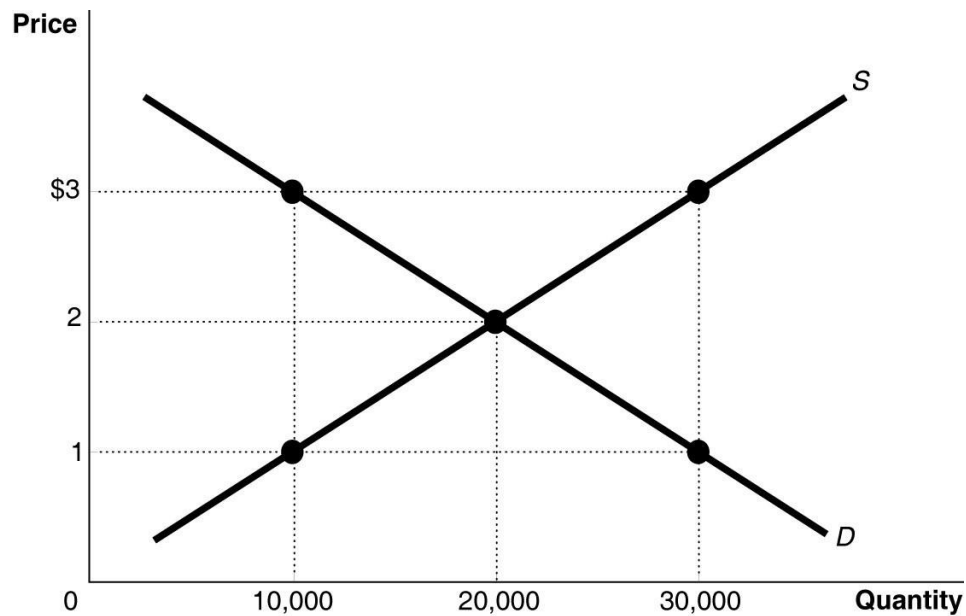
Topic: Competitive Equilibrium

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

Figure 4-4



17) Refer to Figure 4-4. The figure above represents the market for iced tea. Assume that this is a competitive market. At an output of 10,000 units

- A) the marginal cost of iced tea is greater than the marginal benefit; therefore, output is inefficiently low.
- B) producers should lower the price to \$1 in order to sell the quantity demanded of 10,000.
- C) the marginal benefit of iced tea is greater than the marginal cost; therefore, output is inefficiently low.
- D) the marginal benefit of iced tea is greater than the marginal cost; therefore, output is inefficiently high.

Answer: C

Diff: 2 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

18) *Refer to Figure 4-4.* The figure above represents the market for iced tea. Assume that this is a competitive market. At an output of 30,000 units

A) the marginal cost of iced tea is greater than the marginal benefit; therefore, output is inefficiently high.

B) producers should raise the price to \$3 in order to sell the quantity demanded of 30,000.

C) the marginal benefit of iced tea is greater than the marginal cost; therefore, output is inefficiently low.

D) the marginal benefit of iced tea is greater than the marginal cost; therefore, output is inefficiently high.

Answer: A

Diff: 2 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

19) *Refer to Figure 4-4.* The figure above represents the market for iced tea. Assume that this is a competitive market. If the price of iced tea is \$1

A) the quantity supplied is less than the economically efficient quantity.

B) the quantity supplied is economically efficient but the quantity demanded is economically inefficient.

C) economic surplus is maximized.

D) not enough consumers want to buy iced tea.

Answer: A

Diff: 1 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

20) *Refer to Figure 4-4.* The figure above represents the market for iced tea. Assume that this is a competitive market. If the price of iced tea is \$3

A) the quantity supplied is greater than the economically efficient quantity.

B) the quantity demanded is economically efficient but the quantity supplied is economically inefficient.

C) economic surplus is maximized.

D) too many consumers want to buy iced tea.

Answer: A

Diff: 1 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

21) *Refer to Figure 4-4.* The figure above represents the market for iced tea. Assume that this is a competitive market. If the price of iced tea is \$3, what changes in the market would result in an economically efficient output?

- A) The price would decrease, the quantity supplied would increase, and the quantity demanded would decrease.
- B) The quantity supplied would decrease, the quantity demanded would increase, and the equilibrium price would decrease.
- C) The price would decrease, the demand would increase, and the supply would decrease.
- D) The price would decrease, quantity demanded would increase, and quantity supplied would decrease.

Answer: D

Diff: 1 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

22) *Refer to Figure 4-4.* The figure above represents the market for iced tea. Assume that this is a competitive market. If the price of iced tea is \$1, what changes in the market would result in an economically efficient output?

- A) The price would increase, the quantity supplied would increase, and the quantity demanded would decrease.
- B) The quantity supplied would increase, the quantity demanded would decrease, and the equilibrium price would increase.
- C) The price would increase, the demand would increase, and the supply would decrease.
- D) The price would increase, quantity demanded would increase, and quantity supplied would decrease.

Answer: A

Diff: 1 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

23) *Refer to Figure 4-4.* The figure above represents the market for iced tea. Assume that this is a competitive market. If 20,000 units of iced tea are sold

- A) the deadweight loss is equal to economic surplus.
- B) producer surplus equals consumer surplus.
- C) the marginal benefit of each of the 20,000 units of iced tea equals \$3.
- D) marginal benefit is equal to marginal cost.

Answer: D

Diff: 1 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

24) *Refer to Figure 4-4.* The figure above represents the market for iced tea. Assume that this is a competitive market. If 10,000 units of iced tea are sold

- A) the deadweight loss is equal to economic surplus.
- B) producer surplus equals consumer surplus.
- C) the marginal benefit of each of the 10,000 units of iced tea equals \$3.
- D) marginal benefit is less than marginal cost.

Answer: C

Diff: 1 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

25) *Refer to Figure 4-4.* The figure above represents the market for iced tea. Assume that this is a competitive market. Which of the following is true?

- A) If the price of iced tea is \$3, the output will be economically efficient but there will be a deadweight loss.
- B) If the price of iced tea is \$3, consumers will purchase more than the economically efficient output.
- C) Both 10,000 and 30,000 are economically inefficient rates of output.
- D) If the price of iced tea is \$3, producers will sell 30,000 units of iced tea but this output will be economically inefficient.

Answer: C

Diff: 1 Page Ref: 115/115

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

26) In a competitive market when there is no deadweight loss,

- A) consumer surplus is minimized.
- B) producer surplus is minimized.
- C) consumer surplus plus producer surplus is minimized.
- D) consumer surplus plus producer surplus is maximized.

Answer: D

Diff: 1 Page Ref: 117/117

Topic: Competitive Equilibrium

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

27) Economic efficiency is achieved when there is a market outcome in which the marginal benefit to consumers of the last unit produced is equal to its marginal cost of production and

- A) economic surplus plus consumer surplus equals producer surplus.
- B) consumer surplus plus producer surplus is maximized.
- C) economic surplus is minimized.
- D) the difference between consumer surplus and producer surplus is maximized.

Answer: B

Diff: 2 Page Ref: 117/117

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

28) There will be no deadweight loss if the marginal benefit to consumers is equal to the marginal cost of production and the sum of consumer surplus and producer surplus is maximized.

Answer: TRUE

Diff: 1 Page Ref: 116/116

Topic: Deadweight Loss

\*: Recurring

Learning Outcome: Micro-19: Explain the concept of efficiency in the economy and obstacles to achieving it.

AACSB: Analytical thinking

29) If marginal benefit is less than marginal cost, output is inefficiently high.

Answer: TRUE

Diff: 1 Page Ref: 116/116

Topic: Economic Efficiency

\*: Recurring

Learning Outcome: Micro-19: Explain the concept of efficiency in the economy and obstacles to achieving it.

AACSB: Analytical thinking

30) The difference between consumer surplus and producer surplus in a market is equal to the deadweight loss.

Answer: FALSE

Diff: 1 Page Ref: 116/116

Topic: Deadweight Loss

\*: Recurring

Learning Outcome: Micro-19: Explain the concept of efficiency in the economy and obstacles to achieving it.

AACSB: Analytical thinking

31) If the market price is at equilibrium, the deadweight loss is zero.

Answer: TRUE

Diff: 1 Page Ref: 116/116

Topic: Deadweight Loss

\*: Recurring

Learning Outcome: Micro-19: Explain the concept of efficiency in the economy and obstacles to achieving it.

AACSB: Analytical thinking

32) Deadweight loss refers to a loss in revenue resulting from producers having to reduce their selling price to remain competitive.

Answer: FALSE

Diff: 1 Page Ref: 116/116

Topic: Deadweight Loss

\*: Recurring

Learning Outcome: Micro-19: Explain the concept of efficiency in the economy and obstacles to achieving it.

AACSB: Analytical thinking

33) Equilibrium in a competitive market results in the greatest amount of economic surplus from the production of a good or service.

Answer: TRUE

Diff: 1 Page Ref: 117/117

Topic: Competitive Equilibrium

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

34) What is deadweight loss? When is deadweight loss equal to zero?

Answer: Deadweight loss is the reduction in economic surplus resulting from a market not being in competitive equilibrium. Deadweight loss is equal to zero when the sum of consumer surplus and producer surplus is maximized, which occurs when the market is in competitive equilibrium.

Diff: 1 Page Ref: 116/116

Topic: Deadweight Loss

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

35) What is meant by the term "economic efficiency"?

Answer: Economic efficiency refers to a market outcome in which the marginal benefit to consumers of the last unit produced is equal to its marginal cost of production and in which the sum of consumer surplus and producer surplus is at a maximum.

Diff: 2 Page Ref: 117/117

Topic: Economic Efficiency

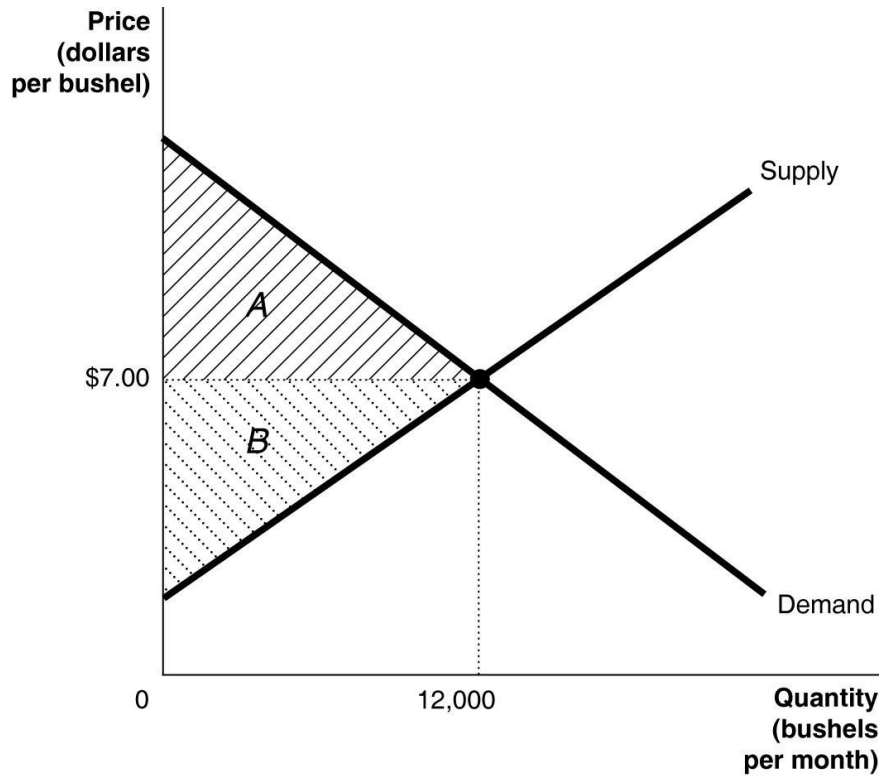
\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking



36) The graph below represents the market for alfalfa. The market price is \$7.00 per bushel. Identify the areas representing consumer surplus, producer surplus, and economic surplus.



Answer: Consumer surplus is represented by area *A*.

Producer surplus is represented by area *B*.

Economic surplus is represented by area *A + B*.

Diff: 1 Page Ref: 115-116/115-116

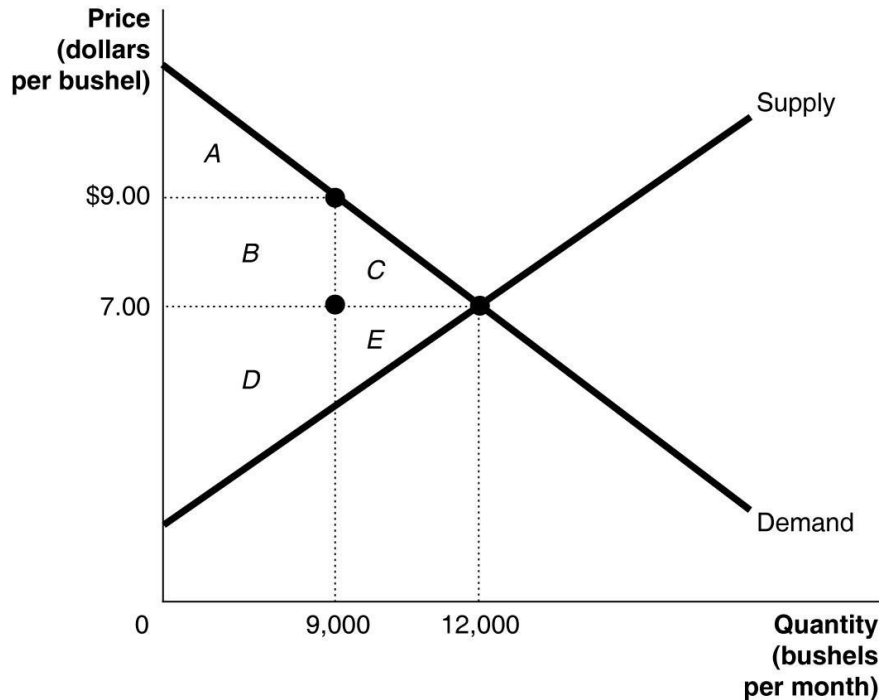
Topic: Economic Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

37) The graph below represents the market for alfalfa. The equilibrium price is \$7.00 per bushel, but the market price is \$9.00 per bushel. Identify the areas representing consumer surplus, producer surplus, and deadweight loss at the equilibrium price of \$7.00 and at the market price of \$9.00.



Answer: At the equilibrium price of \$7.00:  
 Consumer surplus is represented by area  $A + B + C$ .  
 Producer surplus is represented by area  $D + E$ .  
 There is no deadweight loss.

At the market price of \$9.00:  
 Consumer surplus is represented by area  $A$ .  
 Producer surplus is represented by area  $B + D$ .  
 Deadweight loss is represented by area  $C + E$ .

Diff: 2 Page Ref: 116-117/116-117

Topic: Economic Surplus

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

### 4.3 Government Intervention in the Market: Price Floors and Price Ceilings

1) When \_\_\_\_\_ in a market, the total net benefit to society is maximized.

- A) deadweight loss is maximized
- B) a competitive equilibrium is achieved
- C) consumer surplus is minimized
- D) producer surplus is minimized

Answer: B

Diff: 1 Page Ref: 117/117

Topic: Competitive Equilibrium

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

**Table 4-4**

Hourly Wage (dollars)	Quantity of Labor Supplied	Quantity of Labor Demanded
\$8.00	350,000	390,000
8.50	360,000	380,000
9.00	370,000	370,000
9.50	380,000	360,000
10.00	390,000	350,000
10.50	400,000	340,000

Table 4-4 shows the demand and supply schedules for the low-skilled labor market in the city of Westover.

2) *Refer to Table 4-4.* What is the equilibrium hourly wage ( $W^*$ ) and the equilibrium quantity of labor ( $Q^*$ )?

- A)  $W^* = \$9.00$ ;  $Q^* = 370,000$
- B)  $W^* = \$8.50$ ;  $Q^* = 380,000$
- C)  $W^* = \$8.50$ ;  $Q^* = 360,000$
- D)  $W^* = \$9.00$ ;  $Q^* = 740,000$

Answer: A

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

3) *Refer to Table 4-4.* If a minimum wage of \$9.50 an hour is mandated, what is the quantity of labor demanded?

- A) 380,000
- B) 370,000
- C) 360,000
- D) 10,000

Answer: C

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-17: Explain the effects of the factors of production, factor demand, and factor supply and labor in factor markets.

AACSB: Analytical thinking

4) *Refer to Table 4-4.* If a minimum wage of \$9.50 an hour is mandated, what is the quantity of labor supplied?

- A) 390,000
- B) 380,000
- C) 370,000
- D) 340,000

Answer: B

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-17: Explain the effects of the factors of production, factor demand, and factor supply and labor in factor markets.

AACSB: Analytical thinking

5) *Refer to Table 4-4.* If a minimum wage of \$9.50 is mandated there will be a

- A) shortage of 10,000 units of labor.
- B) surplus of 10,000 units of labor.
- C) shortage of 20,000 units of labor.
- D) surplus of 20,000 units of labor.

Answer: D

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

6) *Refer to Table 4-4.* If a minimum wage of \$10.00 an hour is mandated, what is the quantity of labor demanded?

- A) 390,000
- B) 370,000
- C) 350,000
- D) 40,000

Answer: C

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-17: Explain the effects of the factors of production, factor demand, and factor supply and labor in factor markets.

AACSB: Analytical thinking

7) *Refer to Table 4-4.* If a minimum wage of \$10.00 an hour is mandated, what is the quantity of labor supplied?

- A) 390,000
- B) 370,000
- C) 350,000
- D) 40,000

Answer: A

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-17: Explain the effects of the factors of production, factor demand, and factor supply and labor in factor markets.

AACSB: Analytical thinking

8) *Refer to Table 4-4.* If a minimum wage of \$10.00 is mandated there will be a

- A) shortage of 20,000 units of labor.
- B) surplus of 20,000 units of labor.
- C) shortage of 40,000 units of labor.
- D) surplus of 40,000 units of labor.

Answer: D

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

9) **Refer to Table 4-4.** If a minimum wage of \$10.50 an hour is mandated, what is the quantity of labor demanded?

- A) 400,000
- B) 370,000
- C) 340,000
- D) 60,000

Answer: C

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-17: Explain the effects of the factors of production, factor demand, and factor supply and labor in factor markets.

AACSB: Analytical thinking

10) **Refer to Table 4-4.** If a minimum wage of \$10.50 an hour is mandated, what is the quantity of labor supplied?

- A) 400,000
- B) 370,000
- C) 340,000
- D) 60,000

Answer: A

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-17: Explain the effects of the factors of production, factor demand, and factor supply and labor in factor markets.

AACSB: Analytical thinking

11) **Refer to Table 4-4.** If a minimum wage of \$10.50 is mandated there will be a

- A) shortage of 30,000 units of labor.
- B) surplus of 30,000 units of labor.
- C) shortage of 60,000 units of labor.
- D) surplus of 60,000 units of labor.

Answer: D

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

12) *Refer to Table 4-4.* Suppose that the quantity of labor demanded increases by 40,000 at each wage level. What are the new free market equilibrium hourly wage and the new equilibrium quantity of labor?

- A)  $W = \$10.00$ ;  $Q = 390,000$
- B)  $W = \$9.50$ ;  $Q = 380,000$
- C)  $W = \$8.50$ ;  $Q = 380,000$
- D)  $W = \$8.00$ ;  $Q = 390,000$

Answer: A

Diff: 2 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

13) *Refer to Table 4-4.* Suppose that the quantity of labor demanded decreases by 40,000 at each wage level. What are the new free market equilibrium hourly wage and the new equilibrium quantity of labor?

- A)  $W = \$10.00$ ;  $Q = 390,000$
- B)  $W = \$9.50$ ;  $Q = 380,000$
- C)  $W = \$8.50$ ;  $Q = 340,000$
- D)  $W = \$8.00$ ;  $Q = 350,000$

Answer: D

Diff: 2 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

14) *Refer to Table 4-4.* Suppose that the quantity of labor supplied increases by 40,000 at each wage level. What are the new free market equilibrium hourly wage and the new equilibrium quantity of labor?

- A)  $W = \$9.00$ ;  $Q = 410,000$
- B)  $W = \$9.50$ ;  $Q = 420,000$
- C)  $W = \$8.50$ ;  $Q = 400,000$
- D)  $W = \$8.00$ ;  $Q = 390,000$

Answer: D

Diff: 2 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

15) *Refer to Table 4-4.* Suppose that the quantity of labor supplied decreases by 40,000 at each wage level. What are the new free market equilibrium hourly wage and the new equilibrium quantity of labor?

- A)  $W = \$9.00$ ;  $Q = 330,000$
- B)  $W = \$9.50$ ;  $Q = 370,000$
- C)  $W = \$10.00$ ;  $Q = 350,000$
- D)  $W = \$8.00$ ;  $Q = 390,000$

Answer: C

Diff: 2 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

16) Which of the following is a consequence of minimum wage laws?

- A) Low-skilled workers benefit because minimum wage increases the number of jobs providing low-skilled workers with training.
- B) Employers will be reluctant to offer low-skilled workers jobs with training.
- C) Producers have an incentive to offer workers non-wage benefits such as health care benefits and convenient working hours rather than a higher wage.
- D) All workers benefit when the minimum wage is increased.

Answer: B

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

17) The minimum wage is an example of

- A) a subsidy for low-skilled workers.
- B) a price floor.
- C) a price ceiling.
- D) a black market.

Answer: B

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking



18) To affect the market outcome, a price floor

- A) must be set above the black market price.
- B) must be set above the legal price.
- C) must be set above the price ceiling.
- D) must be set above the equilibrium price.

Answer: D

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

19) Government intervention in agricultural markets in the U.S. began

- A) during World War II to ensure that enough food was available for domestic consumption.
- B) after World War I in order to assist farmers to adjust from a war-time economy to a peace-time economy.
- C) during the Great Depression.
- D) during the Korean War.

Answer: C

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

20) A black market is a market where buying and selling take place

- A) at prices that violate government price regulations.
- B) in non-licensed shops and warehouses.
- C) after regular office hours.
- D) on foreign soil.

Answer: A

Diff: 1 Page Ref: 122/122

Topic: Black Markets

\*: Recurring

Learning Outcome: Micro-3: Discuss different types of market systems and the gains that can be made from trade.

AACSB: Analytical thinking

Figure 4-5

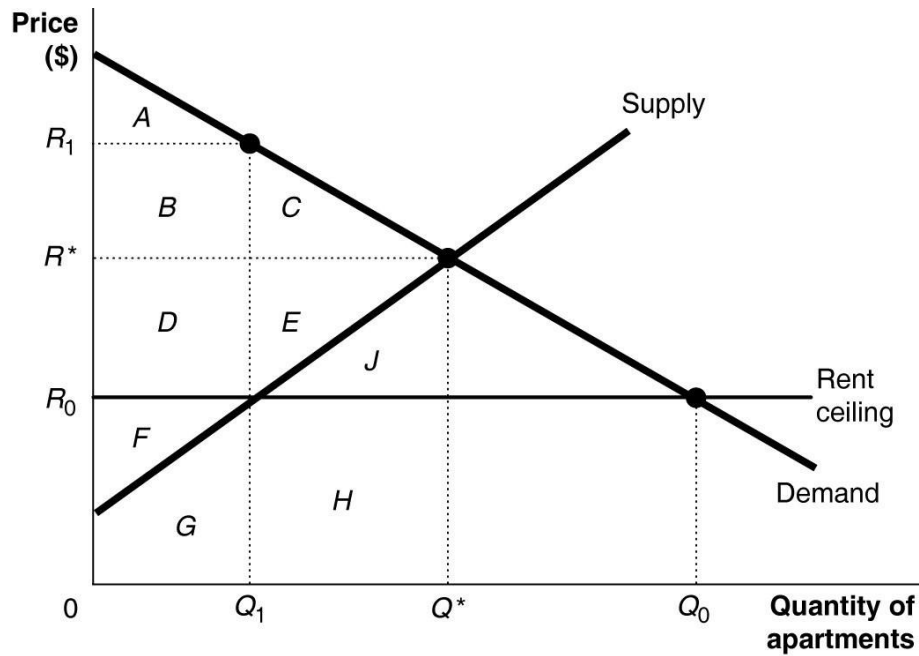


Figure 4-5 shows the market for apartments in Bay City. Recently, the government imposed a rent ceiling at  $R_0$ .

21) Refer to Figure 4-5. With rent control, the quantity supplied is  $Q_1$ . Suppose apartment owners ignore the law and rent this quantity for the highest rent they can get. What is the highest rent they can get?

- A)  $R^*$
- B)  $R_1$
- C)  $R_0$
- D) more than  $R_1$

Answer: B

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

22) *Refer to Figure 4-5.* What is the area that represents consumer surplus after the imposition of the ceiling?

- A)  $A + B + D$
- B)  $A + B + C$
- C)  $A + B + D + F$
- D)  $A + B + D + F + G$

Answer: A

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

23) *Refer to Figure 4-5.* What is the area that represents the producer surplus after the imposition of the ceiling?

- A)  $F + G$
- B)  $F$
- C)  $D + F + G$
- D)  $A + B + D + F + G$

Answer: B

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

24) *Refer to Figure 4-5.* What is the area that represents the portion of producer surplus transferred to consumers as a result of the rent ceiling?

- A)  $D + E$
- B)  $D + F$
- C)  $D$
- D)  $F$

Answer: C

Diff: 3 Page Ref: 120-121/120-121

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

25) *Refer to Figure 4-5.* What area represents the deadweight loss after the imposition of the ceiling?

- A)  $G + H$
- B)  $J + H$
- C)  $C + E + J + H$
- D)  $C + E$

Answer: D

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

26) *Refer to Figure 4-5.* Suppose that instead of a price ceiling, the government imposed a price floor of  $R_1$ . What is the quantity of apartments demanded at the new price?

- A) 0
- B)  $Q_1$
- C)  $Q^*$
- D)  $Q_0$

Answer: B

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

27) *Refer to Figure 4-5.* Suppose that instead of a price ceiling, the government imposed a price floor of  $R_1$ . What is the area representing consumer surplus after the imposition of the price floor?

- A)  $A$
- B)  $A + B + D$
- C)  $C + E$
- D)  $B + C + D + E$

Answer: A

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

28) *Refer to Figure 4-5.* Suppose that instead of a price ceiling, the government imposed a price floor of  $R_1$ . What is the area representing producer surplus after the imposition of the price floor?

- A)  $A$
- B)  $B + D + F$
- C)  $C + E$
- D)  $B + C + D + E + F$

Answer: B

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

29) *Refer to Figure 4-5.* Suppose that instead of a price ceiling, the government imposed a price floor of  $R_1$ . What is the area representing the portion of consumer surplus transferred to producers as a result of the price floor?

- A)  $A$
- B)  $B$
- C)  $B + C$
- D)  $A + B$

Answer: B

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

30) *Refer to Figure 4-5.* Suppose that instead of a price ceiling, the government imposed a price floor of  $R_1$ . What area represents the deadweight loss after the imposition of the price floor?

- A)  $G + H$
- B)  $J + H$
- C)  $C + E + J + H$
- D)  $C + E$

Answer: D

Diff: 2 Page Ref: 120-121/120-121

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

31) Which term refers to a legally established maximum price that firms may charge?

- A) a price ceiling
- B) a subsidy
- C) a price floor
- D) a tariff

Answer: A

Diff: 1 Page Ref: 120/120

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

- 32) In order to be binding, a price floor
- A) must lie above the free-market equilibrium price.
  - B) must lie below the free-market equilibrium price.
  - C) must coincide with the free-market equilibrium price.
  - D) must be high enough for firms to earn a profit.

Answer: A

Diff: 2 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

- 33) \_\_\_\_\_ dictates the lowest wage that firms may pay for labor.

- A) A maximum wage requirement
- B) A minimum wage law
- C) The black-market wage
- D) A price-ceiling wage

Answer: B

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

Figure 4-6

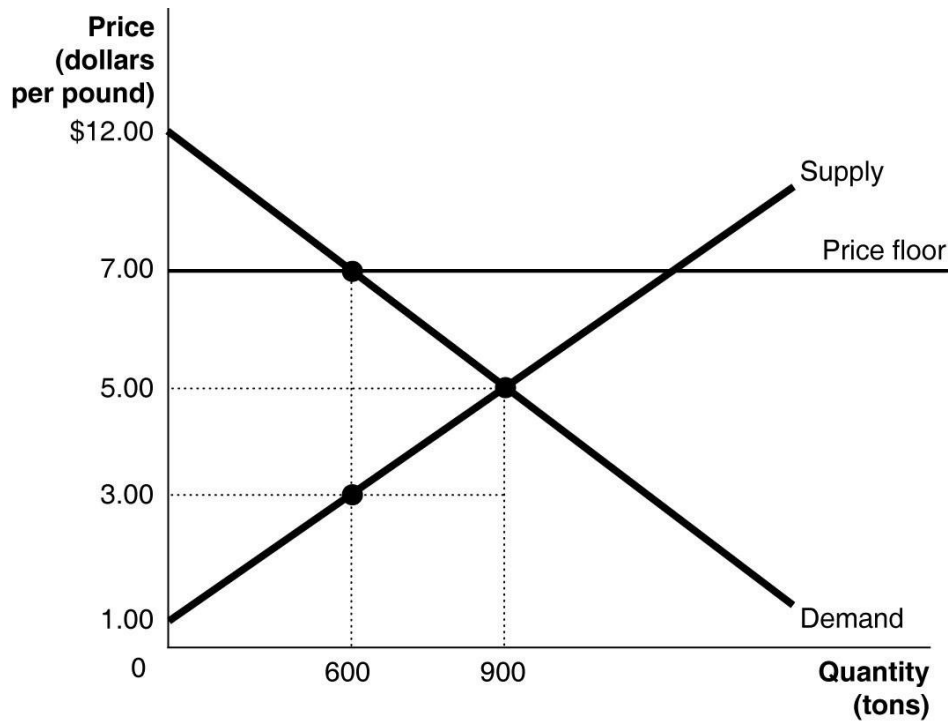


Figure 4-6 shows the demand and supply curves for the coffee market. The government believes that the equilibrium price is too low and tries to help almond growers by setting a price floor at \$7.00.

34) Refer to Figure 4-6. What is the value of consumer surplus after the imposition of the price floor?

- A) \$1,500
- B) \$2,700
- C) \$4,500
- D) \$5,700

Answer: A

Diff: 3 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

35) Refer to Figure 4-6. What is the value of producer surplus after the imposition of the price floor?

- A) \$3,000
- B) \$3,600
- C) \$4,200
- D) \$4,500

Answer: A

Diff: 3 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

36) *Refer to Figure 4-6.* What is the value of the portion of consumer surplus that has been transferred to producer surplus as a result of the price floor?

- A) \$1,200
- B) \$1,500
- C) \$1,800
- D) \$3,000

Answer: A

Diff: 3 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

37) *Refer to Figure 4-6.* What is the value of the deadweight loss after the imposition of the price floor?

- A) \$600
- B) \$1,800
- C) \$2,700
- D) \$3,300

Answer: A

Diff: 3 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

38) Congress passed the Freedom to Farm Act in 1996. What was the purpose of this Act?

- A) to encourage more people to become farmers
- B) to grant free land to farmers in order to produce crops that were particularly scarce
- C) to phase out the use of price ceilings in agricultural markets
- D) to phase out price floors and return to a free market in agriculture

Answer: D

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-3: Discuss different types of market systems and the gains that can be made from trade.

AACSB: Analytical thinking

39) Because minimum wage is a price floor

- A) it will be set below the market equilibrium price.
- B) it will create a deadweight loss.
- C) it will increase the number of jobs available in the labor market.
- D) it will maximize consumer surplus.

Answer: B

Diff: 1 Page Ref: 119-120/119-120

Topic: Price Floors

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

Special Feature: Making the Connection: Price Floors in Labor Markets: The Debate over Minimum Wage Policy



40) Increases in the minimum wage are intended to raise the incomes of low-income workers. Many economists favor a different policy to achieve this goal, a policy that avoids the deadweight losses that result from the minimum wage. What is this policy?

- A) distribution of food stamps to low-income consumers
- B) distribution of vouchers that can be used for rent or mortgage payments
- C) the Alternative Minimum Tax
- D) the earned income tax credit

Answer: D

Diff: 2 Page Ref: 119-120/119-120

Topic: Price Floors

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

Special Feature: Making the Connection: Price Floors in Labor Markets: The Debate over Minimum Wage Policy

41) Which of the following is a result of imposing a rent ceiling?

- A) Some consumer surplus is converted to producer surplus.
- B) There is an increase in the quantity of apartments supplied.
- C) There is an increase in the quantity of apartments demanded.
- D) The marginal benefit of the last apartment rented is less than the marginal cost of supplying it.

Answer: C

Diff: 2 Page Ref: 120/120

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

42) Which of the following describes the difference between "scarcity" and "shortage"?

- A) There is no difference; either word can be used to describe the situation that exists when there is less of a good or service available than people want.
- B) In the economic sense, almost everything is scarce. A shortage of a good or service occurs when the quantity demanded is greater than the quantity supplied at the current market price.
- C) There is a shortage of almost everything. Scarcity occurs only if the quantity demanded of a good or service is greater than the quantity supplied at the current market price.
- D) In the economic sense, almost everything is scarce. A shortage of a good or service occurs when the quantity demanded is greater than the quantity supplied at the equilibrium price.

Answer: B

Diff: 2 Page Ref: 121/121

Topic: Price Ceilings

Learning Outcome: Micro-1: Identify the basic principles of economics and explain how to think like an economist.

AACSB: Analytical thinking

Special Feature: Don't Let This Happen to You: Don't Confuse "Scarcity" with "Shortage"

43) In cities with rent controls, the actual rents paid can be \_\_\_\_\_ than the legal maximum. One explanation for this is because there is a \_\_\_\_\_ of apartments, tenants are \_\_\_\_\_.

- A) higher; shortage; often willing to pay rents higher than the law allows
- B) higher; surplus; often forced to pay rents higher than the law allows
- C) lower; surplus; never willing to pay rents below the legal maximum
- D) lower; shortage; rarely willing to pay rents lower than the law allows

Answer: A

Diff: 2 Page Ref: 122-123/122-123

Topic: Price Ceilings

Learning Outcome: Micro-3: Discuss different types of market systems and the gains that can be made from trade.

AACSB: Analytical thinking

Special Feature: Solved Problem: What's the Economic Effect of a Black Market in Renting Apartments?

44) Which of the following is a result of government price controls?

- A) Some people win and some people lose.
- B) Price controls benefit poor consumers but harm producers and wealthy consumers.
- C) Price controls increase economic efficiency.
- D) The deadweight loss from price ceilings is greater than the deadweight loss from price floors.

Answer: A

Diff: 2 Page Ref: 124/124

Topic: Price Controls

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

45) Economists \_\_\_\_\_ that price controls are desirable.

- A) are in agreement
- B) are reluctant to state
- C) never believe
- D) only recently agree

Answer: B

Diff: 2 Page Ref: 124/124

Topic: Price Controls

\*: Recurring

Learning Outcome: Micro-1: Identify the basic principles of economics and explain how to think like an economist.

AACSB: Analytical thinking

46) If the government implements a price ceiling on insulin, this will

- A) increase the price consumers will pay for insulin.
- B) decrease the quantity of insulin the manufacturers will be willing to supply.
- C) have to be set above the market equilibrium price to be effective.
- D) encourage manufacturers to produce and sell more insulin to increase their profits.

Answer: B

Diff: 2 Page Ref: 120/120

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

47) If the government implements a price ceiling on insulin, this will have all of the following effects on the market for insulin *except*

- A) a decrease in economic surplus.
- B) a decrease in producer surplus.
- C) an increase in deadweight loss.
- D) a more efficient equilibrium.

Answer: D

Diff: 2 Page Ref: 120/120

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

48) Compared to prices charged by Uber, traditional taxi companies charge government-regulated prices. These government-regulated prices \_\_\_\_\_ in the market for shared rides.

- A) decrease consumer surplus
- B) increase consumer surplus
- C) decrease deadweight loss
- D) decrease producer surplus

Answer: A

Diff: 2 Page Ref: 124-125/124-125

Topic: Price Controls

Learning Outcome: Micro-1: Identify the basic principles of economics and explain how to think like an economist.

AACSB: Analytical thinking

Special Feature: Making the Connection: Why Is Uber Such a Valuable Company?

49) When Airbnb customers in Malibu start paying hotel taxes, this will have the potential to \_\_\_\_\_ the equilibrium price in this market and, therefore, \_\_\_\_\_ efficiency.

- A) raise; increase
- B) raise; decrease
- C) lower; increase
- D) lower; decrease

Answer: B

Diff: 2 Page Ref: 124/124

Topic: Consumer Surplus

Learning Outcome: Micro-1: Identify the basic principles of economics and explain how to think like an economist.

AACSB: Analytical thinking

Special Feature: An Inside Look: Airbnb Customers to Pay Hotel Taxes

50) Government intervention in agriculture began in the United States in the 1890s.

Answer: FALSE

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

51) Rent control is an example of a price floor.

Answer: FALSE

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

52) Price floors are illegal in the United States.

Answer: FALSE

Diff: 1 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

53) Price ceilings result in shortages.

Answer: TRUE

Diff: 1 Page Ref: 120/120

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

54) All renters benefit from rent control and all landlords lose.

Answer: FALSE

Diff: 1 Page Ref: 124/124

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

55) There is a shortage of every good that is scarce.

Answer: FALSE

Diff: 1 Page Ref: 121/121

Topic: Scarcity

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

Special Feature: Don't Let This Happen to You: Don't Confuse "Scarcity" with "Shortage"

56) Explain how both renters and landlords could be either winners or losers with the imposition of rent control.

Answer: With rent control, those renters who are able to obtain a rent-controlled apartment will win by paying a rent which is below the equilibrium rent. Those renters who are not able to obtain an apartment due to the shortage created by rent control will lose. Landlords who abide by the rent control will lose by receiving less than the equilibrium rent. Landlords who do not abide by the rent control can win by charging a rent that is higher than the controlled rent.

Diff: 2 Page Ref: 124/124

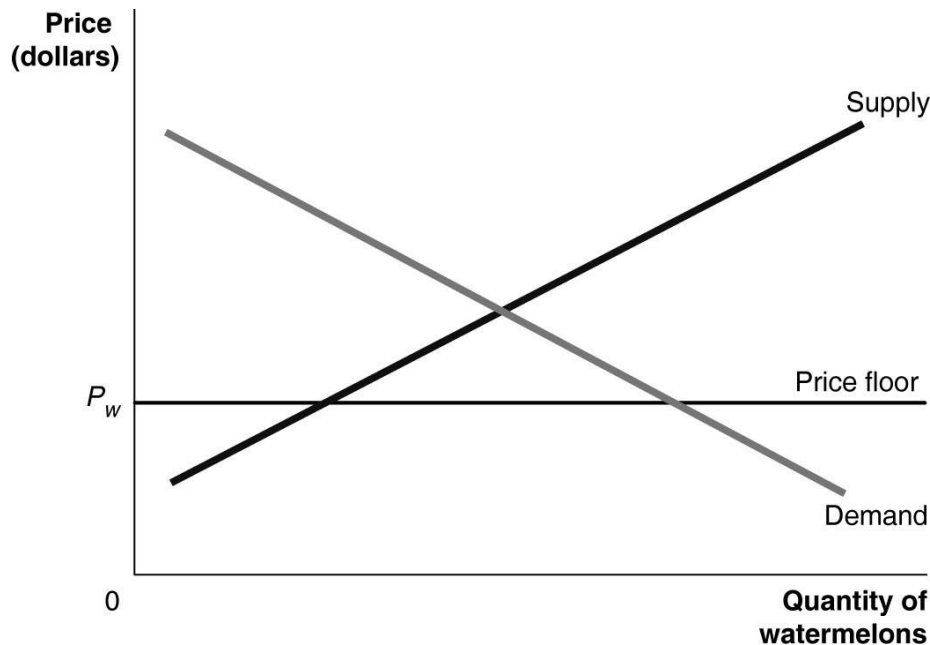
Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

Figure 4-7



57) Refer to Figure 4-7 which shows the market for watermelons. Suppose the government imposes a price floor of  $P_w$ . How will the price floor affect the quantity supplied, quantity demanded, and quantity exchanged?

Answer: The price floor will have no effect on the market outcome. An effective price floor must lie above the free-market equilibrium. Thus, in this case the market outcome will be determined by forces of demand and supply.

Diff: 3 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

Table 4-5

Price Per Bushel (dollars)	Quantity Demanded (bushels)	Quantity Supplied (bushels)
\$3	36,000	0
6	30,000	2,000
9	25,000	5,000
12	20,000	10,000
15	16,000	16,000
18	13,000	23,000
21	8,000	30,000
24	3,000	36,000

Table 4-5 above contains information about the wheat market. Answer the following questions based on this table.

58) *Refer to Table 4-5.* An agricultural price floor is a price that the government guarantees farmers will receive for a particular crop. Suppose the federal government sets a price floor for wheat at \$21 per bushel.

- What is the amount of shortage or surplus in the wheat market as result of the price floor?
- If the government agrees to purchase any surplus output at \$21, how much will it cost the government?
- If the government buys all of the farmers' output at the floor price, how many bushels of wheat will it have to purchase and how much will it cost the government?
- Suppose the government buys up all of the farmers' output at the floor price and then sells the output to consumers at whatever price it can get. Under this scheme, what is the price at which the government will be able to sell off all of the output it had purchased from farmers? What is the revenue received from the government's sale?
- In this problem we have considered two government schemes: (1) a price floor is established and the government purchases any excess output and (2) the government buys all the farmers' output at the floor price and resells at whatever price it can get. Which scheme will taxpayers prefer?
- Consider again the two schemes. Which scheme will the farmers prefer?
- Consider again the two schemes. Which scheme will wheat buyers prefer?

Answer:

- 22,000 surplus.
- $\$21 \times 22,000 = \$462,000$ .
- $30,000 \text{ bushels} \times \$21 = \$630,000$ .
- $\$6$  per bushel and government receives  $\$6 \times 30,000 = \$180,000$ .
- Taxpayers prefer scheme (1).
- In terms of revenue, farmers are indifferent between the two schemes.
- Wheat buyers prefer scheme (2).

Diff: 3 Page Ref: 118/118

Topic: Price Floors

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

Figure 4-8

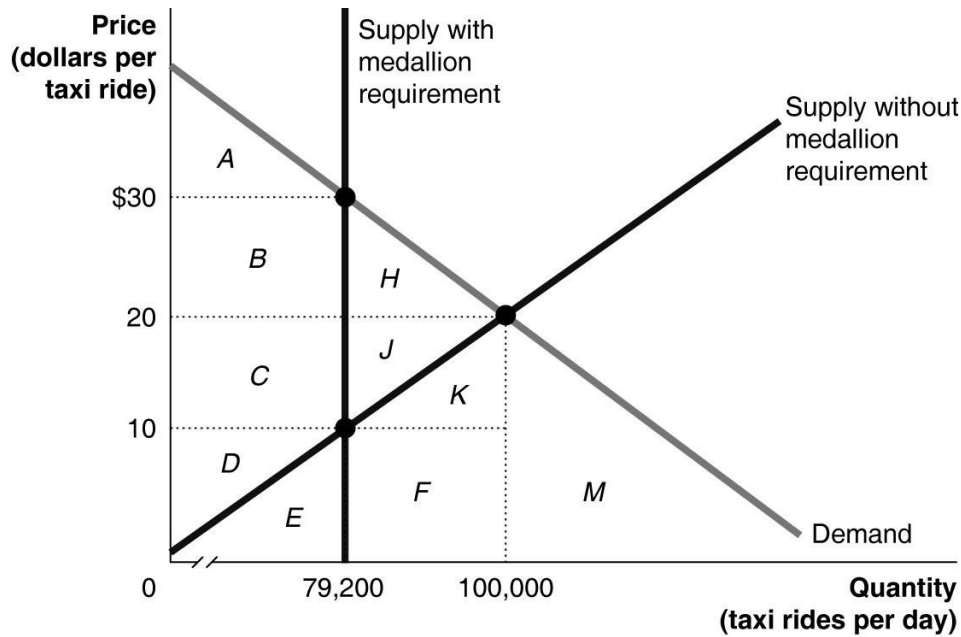


Figure 4-8 shows the market for taxi rides. The following question(s) are based on this figure.

59) Refer to Figure 4-8. To legally drive a taxicab in New York City, you must have a medallion issued by the city government. Assume that only 13,200 medallions have been issued. Let's also assume this puts an absolute limit on the number of taxi rides that can be supplied in New York City on any day, because no one breaks the law by driving a taxi without a medallion. Assume as well that each taxi provides 6 trips per day. In that case, the quantity of taxi rides supplied is 79,200 (or 6 rides per taxi  $\times$  13,200 taxis). This is shown in the diagram with a vertical line at this quantity. Assume that there are no government controls on the prices that drivers can charge for rides.

- What would the equilibrium price and quantity be in this market if there was no medallion requirement?
- If there was no medallion requirement, indicate the area that represents consumer surplus.
- If there was no medallion requirement, indicate the area that represents producer surplus.
- If there was no medallion requirement, indicate the area that represents economic surplus.
- What are the price and quantity with the medallion requirement?
- With a medallion requirement in place, what area represents consumer surplus?
- With a medallion requirement in place, what area represents producer surplus?
- With a medallion requirement in place, what area represents the deadweight loss?
- Based on your answers to parts (c) and (g), are taxicab drivers better off with the medallion requirement for taxicabs than without?
- Are consumers better off with or without the medallion requirement for taxicabs?

Answer:

- a.  $P = \$20, Q = 100,000$  rides.
- b. Consumer Surplus =  $A + B + H$ .
- c. Producer Surplus =  $C + D + J$ .
- d. Economic Surplus =  $A + B + C + D + H + J$ .
- e.  $P = \$30, Q = 79,200$ .
- f. Consumer surplus with medallion =  $A$ .
- g. Producer surplus with medallion =  $B + C + D$ .
- h. Deadweight loss =  $H + J$ .
- i. Taxi drivers are better off with the requirement because producer surplus is greater by the area of  $B - J$ .
- j. Consumers are better off without the medallion requirement.

Diff: 3 Page Ref: 120-121/120-121

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking



60) Using a supply and demand graph, illustrate the market for rent-controlled apartments with the following data:

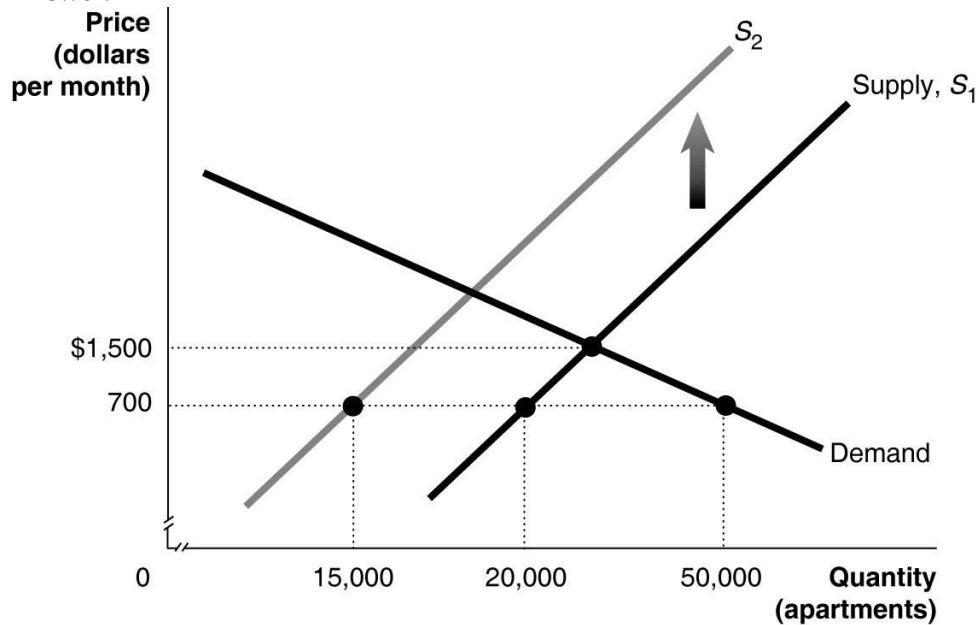
- Equilibrium rent without rent control: \$1,500
- Rent with rent control: \$700
- Quantity of apartments demanded with rent control: 50,000
- Quantity of apartments supplied with rent control: 20,000

What is the value of the initial shortage of apartments with rent control?

Now assume rent control leads to a reduction in the supply of apartments, and the new quantity supplied is now 15,000. Illustrate this on your graph.

What is the value of the shortage of apartments following the decrease in supply?

Answer:



The initial shortage of apartments is  $(50,000 - 20,000) = 30,000$ .

The reduction in supply is shown by the shift from  $S_1$  to  $S_2$ .

The shortage following the decrease in supply is  $(50,000 - 15,000) = 35,000$ .

Diff: 3 Page Ref: 120-121/120-121

Topic: Price Ceilings

\*: Recurring

Learning Outcome: Micro-5: List ways in which governments intervene in markets and explain the consequences of such intervention.

AACSB: Analytical thinking

#### 4.4 The Economic Effect of Taxes

- 1) Tax incidence is the actual division of the
- A) burden of the tax between buyers and sellers in a market.
  - B) tax revenues between government agencies.
  - C) tax revenues between the federal government and state governments.
  - D) population into different tax brackets.

Answer: A

Diff: 1 Page Ref: 126/126

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

Figure 4-9

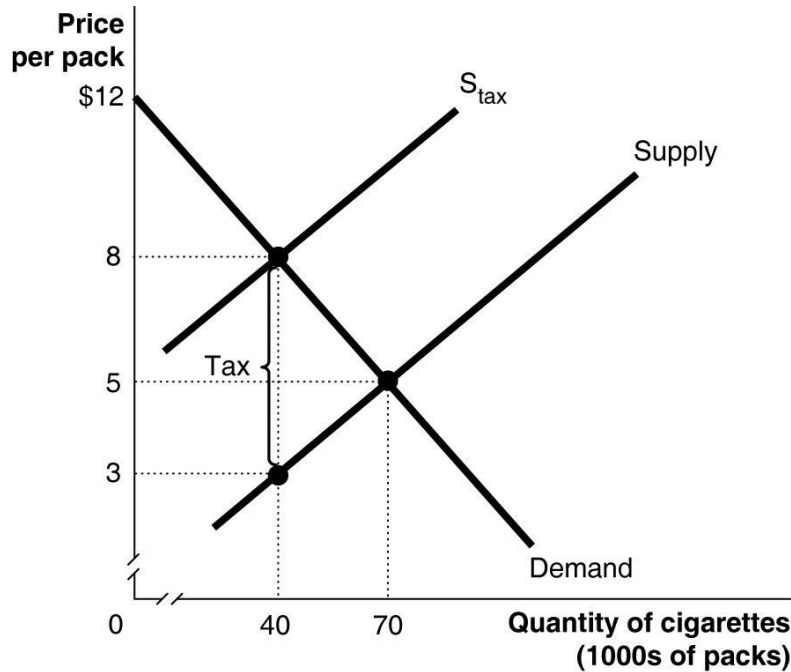


Figure 4-9 shows the market for cigarettes. The government plans to impose a unit tax in this market.

- 2) Refer to Figure 4-9. What is the size of the unit tax?

- A) \$8
- B) \$5
- C) \$3
- D) cannot be determined from the figure

Answer: B

Diff: 1 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

3) *Refer to Figure 4-9.* How much of the tax is paid by buyers?

- A) \$8
- B) \$5
- C) \$4
- D) \$3

Answer: D

Diff: 2 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

4) *Refer to Figure 4-9.* The price buyers pay after the tax is

- A) \$12.
- B) \$8.
- C) \$5.
- D) \$3.

Answer: B

Diff: 1 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

5) *Refer to Figure 4-9.* For each unit sold, the price sellers receive after the tax (net of tax) is

- A) \$12.
- B) \$8.
- C) \$4.40.
- D) \$3.

Answer: D

Diff: 1 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

6) *Refer to Figure 4-9.* How much of the tax is paid by producers?

- A) \$45
- B) \$8
- C) \$3
- D) \$2

Answer: D

Diff: 2 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

7) *Refer to Figure 4-9.* As a result of the tax, is there a loss in producer surplus?

- A) Yes, because producers are not selling as many units now.
- B) No, because the consumer pays the tax.
- C) No, because the market reaches a new equilibrium
- D) No, because producers are able to raise the price to cover their tax burden.

Answer: A

Diff: 2 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

8) The government proposes a tax on halogen light bulbs. Sellers will bear the entire burden of the tax if the

- A) supply curve of halogen bulbs is horizontal.
- B) demand curve for halogen bulbs is vertical.
- C) demand curve for halogen bulbs is horizontal.
- D) demand curve is downward sloping and the supply curve is upward sloping.

Answer: C

Diff: 3 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

9) Buyers will bear the entire burden of a unit tax if the demand curve for a product is

- A) horizontal.
- B) vertical.
- C) downward sloping.
- D) upward sloping.

Answer: B

Diff: 2 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

10) Suppose the demand curve for a product is downward sloping and the supply curve is upward sloping. If a unit tax is imposed in the market for this product,

- A) sellers bear the entire burden of the tax.
- B) the tax burden will be shared among the government, buyers and sellers.
- C) buyers bear the entire burden of the tax.
- D) the tax burden will be shared by buyers and sellers.

Answer: D

Diff: 2 Page Ref: 127/127

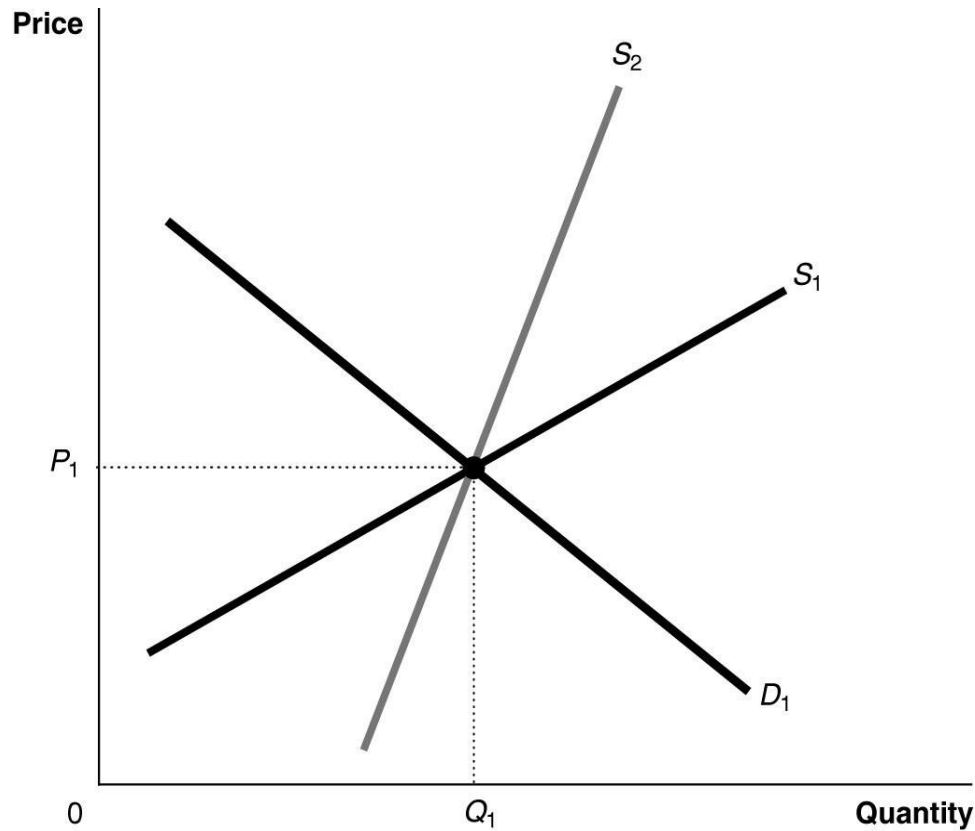
Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

Figure 4-10



- 11) Refer to Figure 4-10. Suppose the market is initially in equilibrium at price  $P_1$  and now the government imposes a tax on every unit sold. Which of the following statements best describes the impact of the tax? For demand curve  $D_1$
- A) the producer bears a smaller share of the tax burden if the supply curve is  $S_2$ .
  - B) the producer bears a smaller share of the tax burden if the supply curve is  $S_1$ .
  - C) the producer's share of the tax burden is the same whether the supply curve is  $S_1$  or  $S_2$ .
  - D) the producer bears the entire burden of the tax if the supply curve is  $S_2$  and the consumer bears the entire burden of the tax if the supply curve is  $S_1$ .

Answer: B

Diff: 3 Page Ref: 127-128/127-128

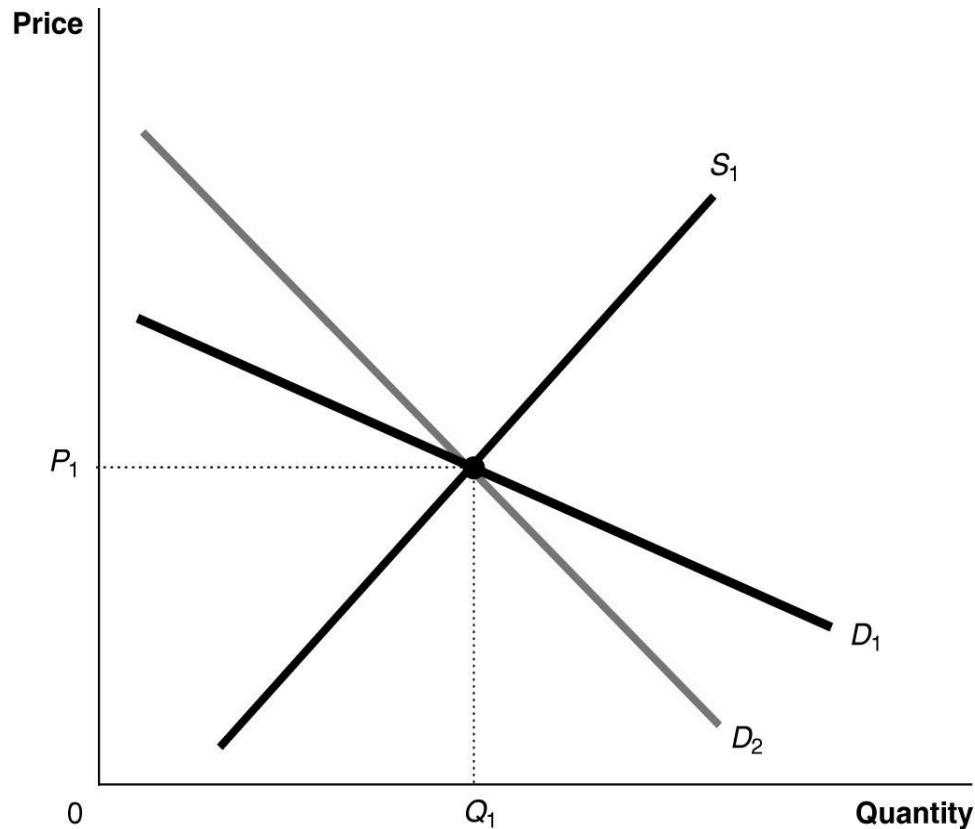
Topic: The Economic Impact of Taxes

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

Figure 4-11



12) Refer to Figure 4-11. Suppose the market is initially in equilibrium at price  $P_1$  and then the government imposes a tax on every unit sold. Which of the following statements best describes the impact of the tax?

- A) The consumer will bear a greater share of the tax burden if the demand curve is  $D_1$ .
- B) The consumer's share of the tax burden is the same whether the demand curve is  $D_1$  or  $D_2$ .
- C) The consumer will bear a greater share of the tax burden if the demand curve is  $D_2$ .
- D) The consumer will bear the entire burden of the tax if the demand curve is  $D_1$  and the producer will bear the entire burden of the tax if the demand curve is  $D_2$ .

Answer: C

Diff: 2 Page Ref: 127-128/127-128

Topic: The Economic Impact of Taxes

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

13) Suppose an excise tax of \$0.75 is imposed on every pack of cigarettes sold and sellers are responsible for paying this tax. How would the imposition of the tax be illustrated in a graph?

- A) The supply curve for cigarettes would shift to the left by \$0.75.
- B) The supply curve for cigarettes would shift to the left by less than \$0.75.
- C) The supply curve for cigarettes would shift to the left by more than \$0.75.
- D) The supply curve for cigarettes would shift to the right by \$0.75.

Answer: A

Diff: 1 Page Ref: 128/128

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-2: Interpret and analyze information presented in different types of graphs.

AACSB: Analytical thinking

14) In Singapore the government places a \$5,000 tax on the buyers of new automobiles. After the purchase of a new car, a buyer must pay the government \$5,000. How would the imposition of the tax on buyers be illustrated in a graph?

- A) The tax will shift the demand curve to the right by \$5,000.
- B) The tax will shift the demand curve to the left by \$5,000.
- C) The tax will shift both the demand and supply curves to the right by \$5,000.
- D) The tax will shift the supply curve to the left by \$5,000.

Answer: B

Diff: 2 Page Ref: 128/128

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

15) A tax is imposed on employers and workers that are used to fund Social Security and Medicare. This tax is sometimes referred to as

- A) the Income Security Tax.
- B) the federal income tax.
- C) the ACIF.
- D) the payroll tax.

Answer: D

Diff: 2 Page Ref: 129-130/129-130

Topic: The Economic Impact of Taxes

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

Special Feature: Making the Connection: Is the Burden of the Social Security Tax Really Shared Equally between Workers and Firms?

16) FICA is a payroll tax imposed on employers and workers that is used to fund Social Security and Medicare. Which of the following statements regarding the tax is true?

- A) Employers are required to pay a greater share of the tax than workers but most economists believe the burden of the tax is shared equally.
- B) Congress wanted the burden of the tax to be greater for employers than for workers.
- C) Most economists believe the burden of the tax falls almost entirely on workers.
- D) Most economists believe the burden of the tax falls mostly on employers.

Answer: C

Diff: 1 Page Ref: 129-130/129-130

Topic: Tax Incidence

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

Special Feature: Making the Connection: Is the Burden of the Social Security Tax Really Shared Equally between Workers and Firms?

17) "Taxes are what we pay for a civilized society." This statement was made by

- A) Adam Smith.
- B) Oliver Wendell Holmes.
- C) Herbert Hoover.
- D) Franklin Roosevelt.

Answer: B

Diff: 1 Page Ref: 125/125

Topic: The Economic Impact of Taxes

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

18) Economists have shown that the burden of a tax is

- A) greater on the buyer when the tax is collected from the buyer.
- B) greater on the seller when the tax is collected from the seller.
- C) greater on the buyer when the tax is collected from the seller and greater on the seller when the tax is collected from the buyer.
- D) the same whether the tax is collected from the buyer or the seller.

Answer: D

Diff: 1 Page Ref: 128/128

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

19) An efficient tax is

- A) a tax that imposes an equal tax burden on buyers and sellers.
- B) a tax that raises a maximum amount of revenue.
- C) a tax that imposes a small excess burden relative to the tax revenue that it raises.
- D) a tax that is used to fund research and development of new technology.

Answer: C

Diff: 1 Page Ref: 125/125

Topic: The Economic Impact of Taxes

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking



### Article Summary

Among a package of anti-smoking bills designed to lower California's health care costs by reducing the use of tobacco products is a bill sponsored by Dr. Richard Pan that would increase the tax on a pack of cigarettes by \$2. California currently has a tobacco tax of 87-cents-per-pack, making California's tax 33rd in the nation and well below the New York state tax of \$4.35 a pack. The state taxes are in addition to a \$1.01 federal tax on cigarettes. The bill stipulates that the revenue collected must be used to increase the number of physicians in California as well as support existing health care programs managed by the state. A Field Poll taken one day following the announcement of the bill found that two-thirds of California voters support the increase in the cigarette tax.

Source: Tracy Seipel and Jessica Calefati, "Cigarette tax: California voters overwhelmingly back \$2-a-pack increase," *San Jose Mercury News*, August 27, 2015.

20) *Refer to the Article Summary.* The additional tax of \$2 per pack of cigarettes being proposed by Senator Pan would have which of the following effects on the market for cigarettes in California?

- A) Consumer surplus will decrease.
- B) Producer surplus will increase.
- C) Deadweight loss will decrease.
- D) Market efficiency will increase.

Answer: A

Diff: 2 Page Ref: 125/125

Topic: The Economic Impact of Taxes

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

Special Feature: Making the Connection: Cigarette tax: California Voters Overwhelmingly Back \$2-a-pack Increase

21) The division of the burden of a tax between buyers and sellers in a market is called tax incidence.

Answer: TRUE

Diff: 1 Page Ref: 126/126

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

22) In the market for gasoline, an increase in the federal excise tax on gasoline would shift the supply curve up.

Answer: TRUE

Diff: 1 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

23) If buyers were required to pay the federal excise tax on gasoline directly to the government, the demand curve for gasoline would shift up.

Answer: FALSE

Diff: 1 Page Ref: 127/127

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

24) A tax is efficient if it imposes a small excess burden relative to the tax revenue it raises.

Answer: TRUE

Diff: 1 Page Ref: 125/125

Topic: The Economic Impact of Taxes

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

25) For most goods and services, the burden of a tax is on the sellers.

Answer: FALSE

Diff: 1 Page Ref: 128/128

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

26) If a tax is imposed on a product, the buyer will always bear the entire burden of the tax.

Answer: FALSE

Diff: 1 Page Ref: 128/128

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

27) Employers withhold several taxes from employees' paychecks, one of which is FICA. Congress requires employers to pay half of the FICA tax and workers to pay the other half. Does this mean that the burden of the FICA tax falls evenly on employers and employees? Briefly explain.

Answer: Most economists believe that even though employers and employees each pay half of the FICA tax, the burden of the tax falls almost entirely on employees. The forces of demand and supply working in the labor market determine the incidence of the tax, not Congress, so even though the tax is paid evenly by employers and employees, this does not mean that the burden is shared equally.

Diff: 1 Page Ref: 129-130/129-130

Topic: Tax Incidence

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

Special Feature: Making the Connection: Is the Burden of the Social Security Tax Really Shared Equally between Workers and Firms?

28) Is there a difference between the "true burden" of a tax and who is legally required to pay a tax? Briefly explain.

Answer: There is a difference. The true burden of a tax refers to the tax incidence, or how much of a tax is ultimately paid by the sellers and how much is paid by the buyers. The incidence of a tax does not depend on whether the government collects a tax from the buyers of a good or from the sellers.

Diff: 1 Page Ref: 126/126

Topic: Tax Incidence

\*: Recurring

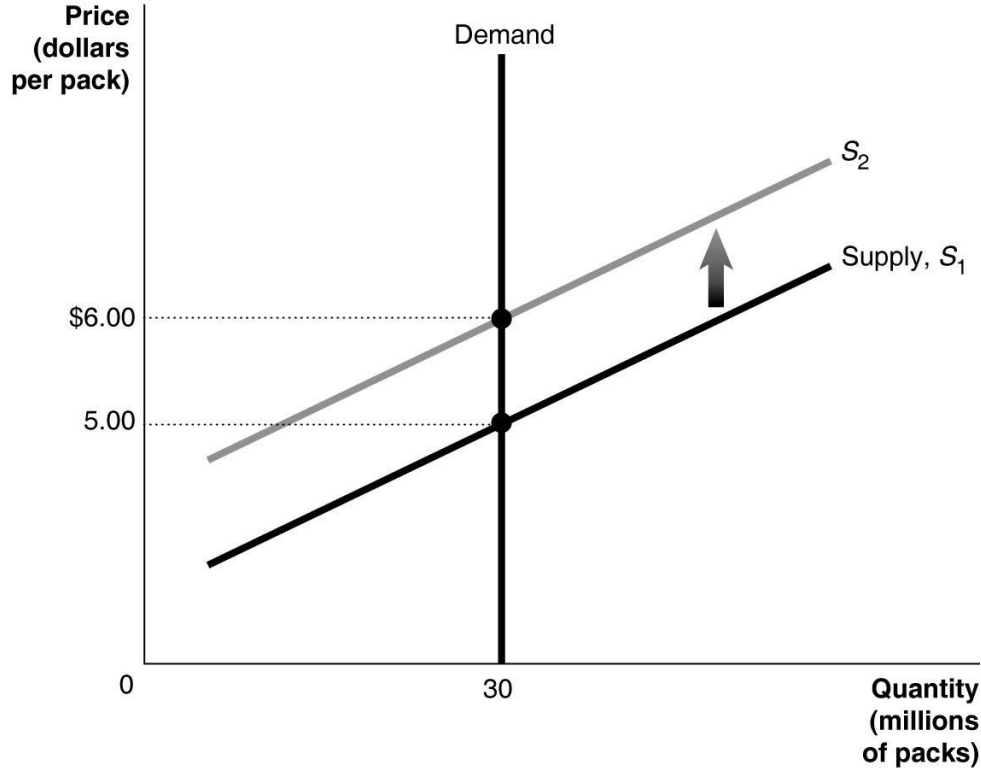
Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

29) Using a supply and demand graph, illustrate the effect of an increase in the federal cigarette tax of \$1.00 per pack, where the entire tax burden falls on the consumer. Assume the equilibrium price before the tax is \$5.00 per pack and the equilibrium quantity is 30 million packs.

After the implementation of the tax, what are the equilibrium price and equilibrium quantity?

Answer:



After the implementation of the tax, the equilibrium price will be \$6.00 and the equilibrium quantity will still be 30 million packs.

Diff: 3 Page Ref: 127-128/127-128

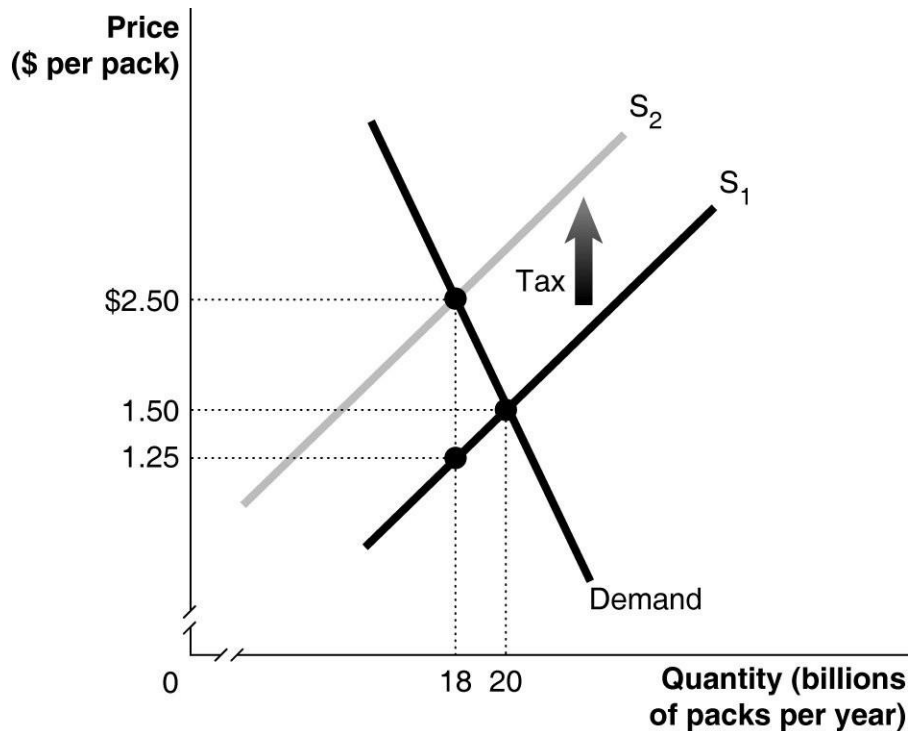
Topic: Tax Incidence

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

Special Feature: Solved Problem: When Do Consumers Pay All of a Sales Tax Increase?

Figure 4-12



30) Refer to Figure 4-12. The figure above represents demand and supply in the market for cigarettes.

Use the diagram to answer the following questions.

- How much is the government tax on each pack of cigarettes?
- What portion of the unit tax is paid by consumers?
- What portion of the unit tax is paid by producers?
- What is the quantity sold after the imposition of the tax?
- What is the after-tax revenue per pack received by producers?
- What is the total tax revenue collected by the government?
- What is the value of the excess burden of the tax?
- Is this cigarette tax efficient?

Answer:

- \$1.25
- Consumer burden = \$1.00
- Producer burden = \$0.25
- Quantity traded = 18 billion
- Net Price to seller = \$1.25
- Tax Revenue = \$22.5 billion ( $\$1.25 \times 18$  billion)
- Excess burden (deadweight loss) = \$1.25 billion ( $\frac{1}{2} \times \$1.25 \times 2$  billion)
- Yes, a tax is efficient if it imposes a small excess burden relative to the tax revenue it raises.

Diff: 2 Page Ref: 127-128/127-128

Topic: Tax Incidence

\*: Recurring

Learning Outcome: Micro-24: Explain the basic principles of tax policies and the tax system.

AACSB: Analytical thinking

## 4.5 Appendix: Quantitative Demand and Supply Analysis

1) The following equations represent the demand and supply for bird feeders.

$$Q_D = 35 - P$$

$$Q_S = -5 + 3P$$

What is the equilibrium price ( $P$ ) and quantity ( $Q$  - in thousands) of bird feeders?

A)  $P = \$10$ ;  $Q = 25$  thousand

B)  $P = \$35$ ;  $Q = 20$  thousand

C)  $P = \$20$ ;  $Q = 20$  thousand

D)  $P = \$5$ ;  $Q = 30$  thousand

Answer: A

Diff: 3 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

2) The following equations represent the demand and supply for kumquats.

$$Q_D = 60 - 3P$$

$$Q_S = -20 + 5P$$

What is the equilibrium price ( $P$ ) and quantity ( $Q$  - in thousands) of kumquats?

A)  $P = \$5$ ;  $Q = 20$  thousand

B)  $P = \$30$ ;  $Q = 5$  thousand

C)  $P = \$20$ ;  $Q = 10$  thousand

D)  $P = \$10$ ;  $Q = 30$  thousand

Answer: D

Diff: 3 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

3) If the price of garlic is represented by equation  $P = 25 - Q_D$ , then the corresponding quantity of garlic demanded is represented by the equation

A)  $Q_D = P - 25$ .

B)  $Q_D = P + 25$ .

C)  $Q_D = 25 - P$ .

D)  $Q_D = -25 + P$ .

Answer: C

Diff: 1 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

4) If the price of toothpaste is represented by equation  $P = 40 - .5Q_D$ , then the corresponding quantity of toothpaste demanded is represented by the equation

- A)  $Q_D = 20 - .5P$ .
- B)  $Q_D = 40 - P$ .
- C)  $Q_D = 80 - 2P$ .
- D)  $Q_D = -20 + P$ .

Answer: C

Diff: 1 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

5) If the quantity of tacos demanded is represented by the equation  $Q_D = 20 - 0.5P$  then the corresponding price of tacos is represented by the equation

- A)  $P = 0.5Q_D + 10$ .
- B)  $P = 40 - 2Q_D$ .
- C)  $P = 10 - 2Q_D$ .
- D)  $P = Q_D + 40$ .

Answer: B

Diff: 1 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

6) If the quantity of hearing aids demanded is represented by the equation  $Q_D = 40 - P$  then the corresponding price of hearing aids is represented by the equation

- A)  $P = 0.5Q_D + 20$ .
- B)  $P = 40 - Q_D$ .
- C)  $P = 0.25 - 4Q_D$ .
- D)  $P = Q_D + 40$ .

Answer: B

Diff: 1 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

7) If the quantity of nail polish supplied is represented by the equation  $Q_S = -3 + 2P$  then the corresponding price of nail polish is represented by the equation

- A)  $P = 0.5Q_S + 1.5$ .
- B)  $P = 2Q_S + 6$ .
- C)  $P = 2Q_S - 6$ .
- D)  $P = 1.5 - 0.5Q_S$ .

Answer: A

Diff: 1 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

8) If the quantity of jelly beans supplied is represented by the equation  $Q_S = -20 + 4P$  then the corresponding price of jelly beans is represented by the equation

- A)  $P = 0.5Q_S + 80$ .
- B)  $P = 0.25Q_S + 5$ .
- C)  $P = 4Q_S - 80$ .
- D)  $P = 2.5 - 4Q_S$ .

Answer: B

Diff: 1 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

**Table 4-6**

Demand	Supply
$P = 50 - Q_D$	$P = 10 + 1/3 Q_S$
$Q_D = 50 - P$	$Q_S = 3P - 30$

9) Refer to Table 4-6. The equations above describe the demand and supply for Aunt Maud's Premium Hand Lotion. What are the equilibrium price and quantity (in thousands) for Aunt Maud's Lotion?

- A) \$20 and 30 thousand
- B) \$30 and 20 thousand
- C) \$60 and 30 thousand
- D) \$20 and 60 thousand

Answer: A

Diff: 3 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

10) *Refer to Table 4-6.* The equations above describe the demand and supply for Aunt Maud's Premium Hand Lotion. The equilibrium price and quantity for Aunt Maud's lotion are \$20 and 30 thousand units. What is the value of consumer surplus?

- A) \$300 thousand
- B) \$450 thousand
- C) \$900 thousand
- D) \$1,500 thousand

Answer: B

Diff: 3 Page Ref: 142-144/142-144

Topic: Calculating Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

11) *Refer to Table 4-6.* The equations above describe the demand and supply for Aunt Maud's Premium Hand Lotion. The equilibrium price and quantity for Aunt Maud's lotion are \$20 and 30 thousand units. What is the value of producer surplus?

- A) \$600 thousand
- B) \$300 thousand
- C) \$150 thousand
- D) \$30 thousand

Answer: C

Diff: 3 Page Ref: 142-144/142-144

Topic: Calculating Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

12) *Refer to Table 4-6.* The equations above describe the demand and supply for Aunt Maud's Premium Hand Lotion. The equilibrium price and quantity for Aunt Maud's lotion are \$20 and 30 thousand units. What is the value of economic surplus in this market?

- A) \$600 thousand
- B) \$1,050 thousand
- C) \$1,500 thousand
- D) \$2,100 thousand

Answer: A

Diff: 3 Page Ref: 142-144/142-144

Topic: Calculating Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking



Table 4-7

Demand	Supply
$P = 60 - 2Q_D$	$P = 15 + Q_S$
$Q_D = 30 - 0.5P$	$Q_S = P - 15$

13) *Refer to Table 4-7.* The equations above describe the demand and supply for Pauline's Pickled Pomegranates. What are the equilibrium price and quantity (in thousands) for Pauline's Pickled Pomegranates?

- A) \$60 and 20 thousand
- B) \$15 and 45 thousand
- C) \$30 and 15 thousand
- D) \$20 and 10 thousand

Answer: C

Diff: 3 Page Ref: 141-142/141-142

Topic: Demand and Supply Equations

\*: Recurring

Learning Outcome: Micro-4: Explain how supply and demand function in competitive markets.

AACSB: Analytical thinking

14) *Refer to Table 4-7.* The equations above describe the demand and supply for Pauline's Pickled Pomegranates. The equilibrium price and quantity for Pauline's Pickled Pomegranates are \$30 and 15 thousand units. What is the value of consumer surplus?

- A) \$50 thousand
- B) \$112.5 thousand
- C) \$225 thousand
- D) \$337.5 thousand

Answer: C

Diff: 3 Page Ref: 142-144/142-144

Topic: Calculating Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

15) *Refer to Table 4-7.* The equations above describe the demand and supply for Pauline's Pickled Pomegranates. The equilibrium price and quantity for Pauline's Pickled Pomegranates are \$30 and 15 thousand units. What is the value of producer surplus?

- A) \$50 thousand
- B) \$112.5 thousand
- C) \$225 thousand
- D) \$337.5 thousand

Answer: B

Diff: 3 Page Ref: 142-144/142-144

Topic: Calculating Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

16) *Refer to Table 4-7.* The equations above describe the demand and supply for Pauline's Pickled Pomegranates. The equilibrium price and quantity for Pauline's Pickled Pomegranates are \$30 and 15 thousand units. What is the value of economic surplus in this market?

- A) \$50 thousand
- B) \$112.5 thousand
- C) \$225 thousand
- D) \$337.5 thousand

Answer: D

Diff: 3 Page Ref: 142-144/142-144

Topic: Calculating Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

17) You are given the following market data for Venus automobiles in Saturnia.

$$\text{Demand: } P = 35,000 - 0.5Q$$

$$\text{Supply: } P = 8,000 + 0.25Q$$

where  $P$  = Price and  $Q$  = Quantity.

- a. Calculate the equilibrium price and quantity.
- b. Calculate the consumer surplus in this market.
- c. Calculate the producer surplus in this market.

Answer:

a. Quantity = 36,000:  $\{35,000 - 0.5Q = 8,000 + 0.25Q.; 27,000 = 0.75Q; Q = 36,000.\}$

Price = \$17,000:  $\{P = 35,000 - 0.5(36,000); P = 35,000 - 18,000; P = \$17,000.\}$

b. Consumer surplus =  $(0.5)(\$35,000 - \$17,000) \times 36,000 = \$324$  million

c. Producer Surplus =  $(0.5)(17,000 - 8,000) \times 36,000 = \$162$  million.

Diff: 3 Page Ref: 142-144/142-144

Topic: Calculating Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking

18) The demand and supply equations for the peach market are:

$$\text{Demand: } P = 24 - 0.5Q$$

$$\text{Supply: } P = -6 + 2.5Q$$

where  $P$  = price per bushel, and  $Q$  = quantity (in thousands).

- Calculate the equilibrium price and quantity.
- Suppose the government guaranteed producers a price of \$24 per bushel. What would be the effect on quantity supplied? Provide a numerical value.
- By how much would the \$24 price change the quantity of peaches demanded? Provide a numerical value.
- Would there be a shortage or surplus of peaches?
- What is the size of this shortage or surplus? Provide a numerical value.

Answer:

- Quantity = 10 thousand bushels:  $\{24 - 0.5Q = -6 + 2.5Q; 30 = 3Q; Q = 10\}$   
Price = \$19:  $\{P = 24 - 0.5(10); P = 24 - 5; P = \$19\}$
- Quantity supplied would increase to 12 thousand bushels:  $\{24 = -6 + 2.5Q; 30 = 2.5Q; Q = 12\}$
- Quantity demanded would fall to zero bushels:  $\{24 = 24 - 0.5Q; 0 = -0.5Q; Q = 0\}$
- There would be a surplus.
- Surplus =  $12,000 - 0 = 12$  thousand bushels.

Diff: 2 Page Ref: 142-144/142-144

Topic: Calculating Surplus

\*: Recurring

Learning Outcome: Micro-7: Discuss the effects of consumer and producer surpluses in a market.

AACSB: Analytical thinking