## Principles of Microeconomics, 10e (Case/Fair/Oster)

## Chapter 5 Demand and Supply Applications (Elasticity)

### 5.1 Price Elasticity of Demand

## 1 Multiple Choice

Refer to the information provided in Figure 5.1 below to answer the questions that follow.


1) Refer to Figure 5.1. The demand for tickets is
A) perfectly price elastic.
B) perfectly price inelastic.
C) unit price elastic.
D) perfectly income inelastic.

Answer: B
Diff: 1
Topic: Price Elasticity of Demand Skill: Fact
2) Demand determines price entirely when
A) demand is downward sloping.
B) demand is perfectly inelastic.
C) supply is perfectly inelastic.
D) supply is perfectly elastic.

Answer: C
Diff: 2
Topic: Price Elasticity of Demand
Skill: Definition
3) For perfectly price inelastic supply
A) supply determines price solely.
B) demand determines price solely.
C) only a government can set the price.
D) either supply or demand may set the price.

Answer: B
Diff: 2
Topic: Other Important Elasticities
Skill: Definition
4) For perfectly price elastic supply curve will be a $\qquad$ line.
A) horizontal
B) vertical
C) upward sloping
D) downward sloping

Answer: A
Diff: 2
Topic: Other Important Elasticities
Skill: Definition
5) A perfectly price elastic demand curve will be a $\qquad$ line.
A) horizontal
B) vertical
C) positively sloped
D) negatively sloped
nswer: A

Answer: A
Diff: 1
Topic: Price Elasticity of Demand Skill: Fact
6) A $\qquad$ line is a perfectly price inelastic demand curve.
A) horizontal
B) vertical
C) positively sloped
D) negatively sloped

Answer: B
Diff: 1
Topic: Price Elasticity of Demand Skill: Fact
7) When the price of radios decreases $5 \%$, quantity demanded increases $5 \%$. The price elasticity of demand for radios is $\qquad$ and total revenue from radio sales will $\qquad$ .
A) elastic; decrease
B) elastic; increase
C) inelastic; decrease
D) unit elastic; not change

Answer: D
Diff: 2
Topic: Price Elasticity of Demand Skill: Analytic
8) When the price of fresh fish increases $10 \%$, quantity demanded decreases $5 \%$. The price elasticity of demand for fresh fish is $\qquad$ and total revenue from fresh fish sales will

> A) inelastic; increase
> B) inelastic; decrease
> C) elastic; decrease
> D) elastic; increase

Answer: A
Diff: 2
Topic: Price Elasticity of Demand
Skill: Definition
9) When the price of fresh fish increases $10 \%$, quantity demanded is unchanged. The price elasticity of demand for fresh fish is
A) perfectly inelastic.
B) elastic.
C) inelastic.
D) unitary elastic.

Answer: A
Diff: 2
Topic: Price Elasticity of Demand
Skill: Definition
10) When the price of coffee increases $5 \%$, quantity demanded decreases $10 \%$. The price
elasticity of demand for coffee is $\qquad$ and total revenue from coffee sales will $\qquad$ -
A) inelastic; increase
B) inelastic; decrease
C) elastic; increase
D) elastic; decrease

Answer: D
Diff: 2
Topic: Price Elasticity of Demand
Skill: Definition
11) The ABC Computer Company wants to increase the quantity of computers it sells by $5 \%$. If the price elasticity of demand is -2.5 , the company must
A) increase price by $2.0 \%$.
B) decrease price by $2.0 \%$.
C) increase price by $0.5 \%$.
D) decrease price by $0.5 \%$.

Answer: B
Diff: 2
Topic: Price Elasticity of Demand Skill: Analytic
12) A government wants to reduce electricity consumption by $10 \%$. The price elasticity of demand for electricity is -5 . The government must $\qquad$ the price of electricity by
A) raise; $2.0 \%$
B) raise; $0.5 \%$
C) raise; $1.25 \%$
D) lower; $0.5 \%$

Answer: A
Diff: 2
Topic: Price Elasticity of Demand
Skill: Analytic
13) A government wants to reduce electricity consumption by $5 \%$. The price elasticity of demand for electricity is -0.5 . The government must $ـ$ the price of electricity by
A) raise; $10.0 \%$
B) raise; $1.0 \%$
C) raise; $0.1 \%$
D) lower; $0.5 \%$

Answer: A
Diff: 2
Topic: Price Elasticity of Demand Skill: Analytic
14) The price elasticity of demand for bottled water in Texas is -2 , and the price elasticity of demand for bottled water in California is -0.5 . In other words, demand in Texas is $\qquad$ and demand in California is $\qquad$ .
A) elastic; inelastic
B) inelastic; elastic
C) elastic; unit elastic
D) inelastic; unit inelastic

Answer: A
Diff: 2
Topic: Price Elasticity of Demand Skill: Conceptual
15) An increase in demand caused no change in the equilibrium price. Thus, supply must be
A) perfectly inelastic.
B) inelastic.
C) elastic.
D) perfectly elastic.

Answer: D
Diff: 2
Topic: Other Important Elasticities
Skill: Definition
16) The price elasticity of demand for heart transplants is perfectly inelastic. Thus, the price elasticity demand for heart transplants is
A) 0.0 .
B) 1.0 .
C) -1.0 .
D) -100.0 .

Answer: A
Diff: 2
Topic: Price Elasticity of Demand
Skill: Analytic
17) If the supply of oranges is unit elastic, the price elasticity of supply of oranges is
A) 0.0 .
B) 1.0 .
C) -1.0 . D) -100.0 .

Answer: B
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic

### 5.2 Calculating Elasticities

## 1 Multiple Choice

Refer to the information provided in Figure 5.2 below to answer the questions that follow.


Figure 5.2

1) Refer to Figure 5.2. If the price of a hamburger is increased from $\$ 8$ to $\$ 10$, the price elasticity of demand equals $\qquad$ . Use the midpoint formula.
A) -0.33
B) -3.0
C) -30 .
D) -300

Answer: B
Diff: 2
Topic: Calculating Elasticities
Skill: Analytic
2) Refer to Figure 5.2. If the price of a hamburger is increased from $\$ 6$ to $\$ 8$, the price elasticity of demand equals $\qquad$ . Use the midpoint formula.
A) -0.24
B) -1.0
C) -1.4
D) -2.0

Answer: C
Diff: 2
Topic: Calculating Elasticities Skill: Analytic
3) Refer to Figure 5.2. If the price of a hamburger is increased from $\$ 2$ to $\$ 4$, the price elasticity of demand equals $\qquad$ . Use the midpoint formula.
A) -0.33
B) -2.0
C) -3.0
D) -5.0

Answer: A
Diff: 2
Topic: Calculating Elasticities
Skill: Analytic
4) Refer to Figure 5.2. At Point $C$ the price elasticity of demand is -1 . Along line segment $E C$ of the demand curve, the demand is
A) elastic.
B) unit elastic.
C) inelastic.
D) either elastic or inelastic, depending on whether price increases or decreases.

Answer: C
Diff: 2
Topic: Calculating Elasticities
Skill: Definition
5) Refer to Figure 5.2. At Point $C$ the price elasticity of demand is -1. Along line segment $A B$ of the demand curve, the demand is
A) elastic.
B) unit elastic.
C) inelastic.
D) either elastic or inelastic, depending on whether price increase or decreases.

Answer: A
Diff: 2
Topic: Calculating Elasticities
Skill: Definition

Refer to the information provided in Figure 5.3 below to answer the questions that follow.


Figure 5.3
6) Refer to Figure 5.3. Use the midpoint formula. If the price of a gardenburger is increased from $\$ 8$ to $\$ 10$, the price elasticity of demand equals $\qquad$ and demand is $\qquad$ .
A) 4.5; elastic
B) -0.5 ; inelastic
C) -4.5 ; elastic
D) -9.0; inelastic

Answer: C
Diff: 2


Topic: Calculating Elasticities
Skill: Analytic
7) Refer to Figure 5.3. Use the midpoint formula. If the price of a gardenburger is increased from $\$ 6$ to $\$ 8$, the price elasticity of demand equals $\qquad$ and demand is $\qquad$ -
A) -0.57; inelastic
B) -1.75 ; elastic
C) -1.9; inelastic
D) -2.0; elastic

Answer: B
Diff: 2
Topic: Calculating Elasticities
Skill: Analytic
8) Refer to Figure 5.3. Using the midpoint formula, if the price of a gardenburger is decreased from $\$ 7$ to $\$ 6$, the price elasticity of demand equals $\qquad$ and the decrease results in a(n)
$\qquad$ in total revenue.
A) -.13; decrease
B) -. -9 ; increase
C) -1.44 ; increase
D) -13 ; increase

Answer: C
Diff: 2
Topic: Calculating Elasticities
Skill: Analytic
9) The owner of a local hot dog stand has estimated that if he lowers the price of hot dogs from $\$ 2.00$ to $\$ 1.50$, he will increase sales from 400 to 500 hot dogs per day. Using the midpoint formula, the demand for hot dogs is
A) elastic.
B) inelastic.
C) unit elastic.
D) perfectly elastic.

Answer: B
Diff: 2
Topic: Calculating Elasticities Skill: Definition
10) At a price of $\$ 11$, quantity demanded is 90 ; and at a price of $\$ 9$, quantity demanded is 110 . Since total revenue $\qquad$ by the price decrease, demand must be $\qquad$ .
A) is increased; elastic
B) is decreased; inelastic
C) is unchanged; unit elastic
D) is unchanged; elastic

Answer: C
Diff: 2
Topic: Calculating Elasticities
Skill: Analytic
11) At a price of $\$ 20$, a store can sell 24 picture frames a day. At a price of $\$ 18$ the store can sell 33 picture frames a day. Since total revenue $\qquad$ by the price decrease, demand must be
$\qquad$ .
A) is increased; elastic
B) is increased; inelastic
C) is increased; unit elastic
D) is decreased; elastic

Answer: A
Diff: 2
Topic: Calculating Elasticities
Skill: Analytic
12) Price and total revenue move in inverse directions when demand is
A) price elastic.
B) price inelastic.
C) unit price elastic.
D) perfectly price inelastic.

Answer: A
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
13) Price and total revenue are directly related when demand is
A) price elastic.
B) price inelastic.
C) unit price elastic.
D) perfectly price elastic.

Answer: B
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
14) Total revenue decreases if price $\qquad$ and demand is $\qquad$ .
A) falls; elastic
B) falls; inelastic

C) rises; inelastic
D) rises; unit elastic

Answer: B
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
15) Total revenue increases if price $\qquad$ and demand is $\qquad$ .
A) falls; inelastic
B) falls; elastic
C) rises; elastic
D) rises; unit elastic

Answer: B
Diff: 1
Topic: Calculating Elasticities
Skill: Fact

Refer to the information provided in Figure 5.4 below to answer the questions that follow.


Figure 5.4
16) Refer to Figure 5.4. The demand for milkshakes is unit elastic at Point $C$. If a store reduces the price of a milkshake from $P 3$ to $P 4$, its total revenue will
A) increase.
B) decrease.
C) remain constant.
D) either increase or decrease.

Answer: B
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
17) Refer to Figure 5.4. The demand for milkshakes is unit elastic at Point $C$. If the milkshake price falls from P1 to P2, total revenue will
A) increase.
B) decrease.
C) remain constant.
D) either increase or decrease.

Answer: A
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
18) Refer to Figure 5.4. Along the given demand curve, which of the following is true?
A) Demand is less elastic along the segment AB than the segment EF.
B) Demand is less elastic along the segment $E F$ than the segment $A B$.
C) Since the demand curve is linear, the price elasticity of demand between each of the points (e.g. segment $A B$, segment $B C$, etc.) is the same.
D) It is impossible to tell with the given diagram.

Answer: B
Diff: 2
Topic: Calculating Elasticities
Skill: Fact
19) A firm is currently producing in the inelastic portion of its demand curve. What course of action do you recommend for it assuming it wants to raise revenue?
A) Continue producing at the current output level, because it maximizes its total revenue by producing in the inelastic portion of its demand curve.
B) Reduce price, because if it reduces price and demand is inelastic, total revenue will increase.
C) Increase price, because if it increases price and demand is inelastic, total revenue will increase.
D) Continue selling at the same price, but increase the amount it produces.

Answer: C
Diff: 3
Topic: Calculating Elasticities
Skill: Conceptual
20) A firm is currently producing in the elastic portion of its demand curve. What course of action do you recommend for it assuming it wants to raise revenue?
A) Continue producing at the current output level, because it maximizes its total revenue by producing in the elastic portion of its demand curve.
B) Reduce price, because if it reduces price and demand is elastic, total revenue will increase.
C) Increase price, because if it increases price and demand is elastic, total revenue will increase.
D) Continue selling at the same price, but increase the amount it produces.

Answer: B
Diff: 3
Topic: Calculating Elasticities
Skill: Conceptual

## 2 True/False

1) When the slope of a demand curve is constant, price elasticity of demand is constant as well.

Answer: FALSE
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
2) A demand curve with continuously changing slope over all quantity values can have a constant price elasticity of demand.
Answer: TRUE
Diff: 2
Topic: Calculating Elasticities
Skill: Fact
3) A demand curve with constant slope over all quantity values can have a continuously changing price elasticity of demand.
Answer: TRUE
Diff: 2
Topic: Calculating Elasticities
Skill: Fact
4) Price elasticity of demand is calculated using the change in quantity demanded and the change in price.
Answer: FALSE
Diff: 2
Topic: Price Elasticity of Demand
Skill: Definition
5) The price elasticity of demand is generally negative to reflect the indirect relationship between the quantity demanded of a good and its price.
Answer: TRUE
Diff: 2

Skill: Definition
6) Perfectly inelastic demand is graphed as a vertical line.

Answer: TRUE
Diff: 1
Topic: Price Elasticity of Demand
Skill: Fact
7) Perfectly elastic demand is graphed as a horizontal line.

Answer: TRUE
Diff: 1
Topic: Price Elasticity of Demand
Skill: Fact
8) A tax on a good whose demand is price elastic will be effective in discouraging consumption of that good.
Answer: TRUE
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
9) If government officials are mainly interested in generating tax revenue, then they should tax goods for which demand is price elastic.
Answer: FALSE
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
10) How total revenue changes when a price changes can be predicted using price elasticity of demand.
Answer: TRUE
Diff: 2
Topic: Calculating Elasticities
Skill: Definition
11) When demand is elastic, an increase in price will result in an increase in total revenue.

Answer: FALSE
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
12) When demand is elastic, a decrease in price will result in an increase in total revenue.

Answer: TRUE
Diff: 1

Skill: Fact
13) When demand is inelastic, an increase in price will result in an increase in total revenue.

Answer: TRUE
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
14) When demand is inelastic, a decrease in price will result in an increase in total revenue.

Answer: FALSE
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
15) When demand is unit elastic, an increase in price will result in an increase in total revenue.

Answer: FALSE
Diff: 1
Topic: Calculating Elasticities
Skill: Fact
16) When demand is unit elastic, a decrease in price will result in no change in total revenue.

Answer: TRUE
Diff: 1
Topic: Calculating Elasticities
Skill: Fact

### 5.3 The Determinants of Demand Elasticity

## 1 Multiple Choice

1) When there are more substitutes for a product, the $\qquad$ for the product is $\qquad$ .
A) demand; less price elastic
B) demand; more price elastic
C) income elasticity; greater
D) income elasticity; smaller

Answer: B
Diff: 1
Topic: Determinants of Demand Elasticity
Skill: Fact
2) The more time that elapses, the
A) less price elastic is the demand for the product.
B) more price elastic is the demand for the product.
C) greater the income elasticity of demand for a product.
D) smaller the income elasticity of demand for the product.

Answer: B
Diff: 1
Topic: Determinants of Demand Elasticity
Skill: Fact
3) The determinants of elasticity include
A) availability of substitutes. F
B) price relative to income.
C) time.
D) all of the above

Answer: D
Diff: 2
Topic: Determinants of Demand Elasticity
Skill: Definition

### 5.4 Other Important Elasticities

## 1 Multiple Choice

1) The income elasticity of demand
A) measures the change in income necessary for a given change in quantity demanded.
B) measures the responsiveness of income to changes in quantity demanded.
C) measures the responsiveness of quantity demanded to changes in income.
D) is the ratio of the percentage change in income to the percentage change in quantity demanded.
Answer: C
Diff: 1
Topic: Other Important Elasticities
Skill: Definition
2) If income increases by $10 \%$ and, in response, the quantity of housing demanded increases by $7 \%$, then the income elasticity of demand for housing is
A) -0.7
B) -1
C) 0.7
D) 1.43

Answer: C
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
3) The income elasticity of demand for education is 3.5 . Thus, a $4 \%$ increase in income will
A) decrease the quantity of education demanded by $3.5 \%$.
B) decrease the quantity of education demanded by $14 \%$.
C) increase the quantity of education demanded by $4 \%$.
D) increase the quantity of education demanded by $14 \%$.

Answer: D
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
4) The income elasticity of demand for low-quality beef is -2 . Thus, an $8 \%$ decrease in the quantity of low-quality beef demanded
A) is the result of a decrease in income of $4 \%$.
B) is the result of an increase in income of $0.25 \%$.
C) is the result of an increase in income of $4 \%$.
D) is unrelated to any change in income.

Answer: C
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
5) Assume you earn $\$ 20,000$ a year and your favorite sports magazine costs you $\$ 100$ a year.

Your demand for the sports magazine is likely to be
A) elastic.
B) inelastic.
C) perfectly elastic.
D) perfectly inelastic.

Answer: A
Diff: 1
Topic: Other Important Elasticities
Skill: Fact
6) Assume you earn $\$ 75,000$ a year and your favorite entertainment magazine costs you $\$ 25$ a year. Your demand for the entertainment magazine is likely to be
A) elastic.
B) inelastic.
C) perfectly elastic.
D) perfectly inelastic.

Answer: B
Diff: 1
Topic: Other Important Elasticities
Skill: Fact
7) The ABC Computer Company spends a lot of money for advertising designed to convince you that their personal computers are superior to all other personal computers. If the ABC Company is successful, the demand for ABC personal computers
A) and the demand for other firms' personal computers will become less price elastic.
B) and the demand for other firms' personal computers will become more price elastic.
C) will become more price elastic but the demand for other firms' personal computers will become less price elastic.
D) will become less price elastic but the demand for other firms' personal computers will become more price elastic.
Answer: D
Diff: 3

Skill: Conceptual
8) A government is considering levying an alcohol tax to raise revenue to finance health care benefits. People for the tax argue that alcohol demand is price inelastic. Which of the following statements is TRUE?
A) The alcohol tax may not raise as much revenue as anticipated in the years to come because alcohol demand is likely to become more elastic over time.
B) This is a very good way to raise revenue both in the short term and in the long term because there are no close substitutes for alcohol.
C) This tax will not raise much revenue either in the short term or the long term because demand is price inelastic.
D) No tax revenue can be raised in this way because alcohol sellers will just lower their price by the amount of the tax and therefore the consumer price of alcohol will not change.
Answer: A
Diff: 3
Topic: Other Important Elasticities
Skill: Conceptual
9) In order to discourage consumers from eating unhealthy fast food, the government is considering placing a tax on all fast food sales. Which of the following statements is TRUE?
A) Given the numerous alternatives, consumers' demand for fast food is relatively elastic and the tax will likely work to discourage fast food consumption.
B) The tax on fast food will likely raise considerable revenue, but will be unlikely to reduce the consumption of fast food by consumers.
C) The tax on fast food will likely increase the demand for homecooked meals.
D) Both (A) and (C) are true.

Answer: D
Diff: 3
Topic: Other Important Elasticities
Skill: Conceptual
10) Suppose an increase of $10 \%$ in the price of steak reduces the consumption of steak by $30 \%$.

Such a price rise will induce households to spend
A) less of their income on steak.
B) more of their income on steak.
C) the same amount on steak as before.
D) more on products that are complementary with steak.

Answer: A
Diff: 2
Topic: Other Important Elasticities
Skill: Definition
11) Cross-price elasticity of demand measures the response in the
A) price of a good to a change in the quantity of another good demanded.
B) income of consumers to the change in the price of goods.
C) quantity of one good demanded when the quantity demanded of another good changes.
D) quantity of one good demanded to a change in the price of another good.

Answer: D
Diff: 2
Topic: Other Important Elasticities
Skill: Definition
12) If the quantity demanded of tea increases by $2 \%$ when the price of coffee increases by $6 \%$, the cross-price elasticity of demand between tea and coffee is
A) -3 .
B) 0.33 .
C) 3 .
D) 12 .

Answer: B
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
13) If the quantity demanded of bagels decreases by $8 \%$ when the price of croissants decreases by $16 \%$, the cross-price elasticity of demand between bagels and croissants is
A) 0.5 .
B) -5 .
C) -2 .
D) 2 .

Answer: A
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
14) If the quantity demanded of peanut butter increases by $4 \%$ when the price of jelly decreases by $2 \%$, the cross-price elasticity of demand between peanut butter and jelly is
A) -4 .
B) -2 .
C) -0.5 .
D) 2 .

Answer: B
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
15) If the cross-price elasticity of demand between fish and chicken is 2 , then a $2 \%$ increase in the price of fish will result in a $\qquad$ in the quantity of chicken demanded.
A) $1 \%$ increase
B) $4 \%$ increase
C) $10 \%$ increase
D) $20 \%$ decrease

Answer: B
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
16) The cross-price elasticity of demand between good $X$ and good $Y$ is -3 . Given this information, which of the following statements is TRUE?
A) The demand for goods $X$ and $Y$ is elastic.
B) Goods $X$ and $Y$ are substitutes.
C) Goods $X$ and $Y$ are complements.
D) The demand for goods $X$ and $Y$ is income elastic.

Answer: C
Diff: 2
Topic: Other Important Elasticities
Skill: Conceptual
17) The cross-price elasticity of demand between good $X$ and good $Y$ is 0.5 . Given this information, which of the following statements is TRUE?
A) The demand for goods $X$ and $Y$ is inelastic.
B) Goods $X$ and $Y$ are substitutes.
C) Goods X and Y are complements.
D) The demand for goods X and Y is income inelastic.

Answer: B
Diff: 2
Topic: Other Important Elasticities
Skill: Conceptual

## Refer to the information provided in Figure 5.5 below to answer the question that follows.



Figure 5.5
18) Refer to Figure 5.5. As the price of $W$ increased, the demand for $Y$ shifted from $D 1$ to $D 2$. The cross-price elasticity of demand between W and Y is
A) positive.
B) negative.
C) zero.
D) indeterminate from this information.

Answer: A
Diff: 2
Topic: Other Important Elasticities
Skill: Definition
19) In output markets, the elasticity of supply tends to be
A) negative.
B) zero.
C) positive.
D) decreasing at an increasing rate.

Answer: C
Diff: 1
Topic: Other Important Elasticities
Skill: Fact
20) If the elasticity of labor supply is positive, the labor-supply curve would be
A) horizontal.
B) vertical.
C) downward sloping.
D) upward sloping.

Answer: D
Diff: 1
Topic: Other Important Elasticities
Skill: Fact

## Refer to the information provided in Figure 5.6 below to answer the question that follows.



Figure 5.6
21) Refer to Figure 5.6. The market is initially in equilibrium at Point $A$ (where price $=\$ 7$ and quantity $=12$ thousand pizzas) and supply shifts from $S 1$ to $S 2$. Which of the following statements is TRUE?
A) Price will still serve as a rationing device causing quantity supplied to exceed 12 thousand pizzas.
B) There is no need for price to serve as a rationing device in this case because the new equilibrium quantity exceeds the original equilibrium quantity.
C) Price will still serve as a rationing device causing quantity demanded to fall from 12 to 10 thousand pizzas.
D) The market cannot move to a new equilibrium until there is also a change in supply.

Answer: C
Diff: 1
Topic: Other Important Elasticities
Skill: Fact
22) At a price of $\$ 4$, quantity supplied is 100 ; and at a price of $\$ 6$, quantity supplied is 120 . Using the midpoint formula, the price elasticity of supply is $\qquad$ and supply is
$\qquad$ —.
A) 0.1; inelastic
B) 0.45 ; inelastic
C) 2.2 ; elastic
D) 10; elastic

Answer: B
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
23) A mass transit authority charges bus fares of $\$ 1.25$ during morning rush hours but only $\$ 1.00$ during late morning non-rush hours. Economists explain the fare difference by the fact that the demand for bus rides during the morning rush hours is $\qquad$ but during the late morning it is $\qquad$ .
A) more elastic; more inelastic
B) perfectly elastic; perfectly inelastic
C) more inelastic; more elastic
D) unit elastic; relatively inelastic

Answer: C
Diff: 3
Topic: Other Important Elasticities
Skill: Conceptual
2 True/False

1) A positive cross-price elasticity between two goods implies that the two goods are substitutes.
Answer: TRUE
Diff: 2
Topic: Other Important Elasticities
Skill: Definition
2) A positive cross-price elasticity between two goods implies that the two goods are compliments.
Answer: FALSE
Diff: 2
Topic: Other Important Elasticities
Skill: Definition
3) Inferior goods will experience increasing demand when incomes increase.

Answer: FALSE
Diff: 2
Topic: Other Important Elasticities
Skill: Analytic
4) If a group has a negative elasticity of labor supply (above some income level), then continued increases in wages will result in decreases in the quantity of labor supplied. Answer: TRUE
Diff: 2
Topic: Other Important Elasticities
Skill: Definition


