

Economics 103 Fall 2007 All Sections: Lab 3

Multiple Choice

1. During the fall of 2002, many vacationers on cruise liners became ill while on board their ships. Consequently, there was a
- decrease in the quantity demanded of cruise vacations but no change in demand for cruise vacations.
 - decrease in the demand for cruise vacations.
 - increase in the quantity supplied of cruise vacations but no change in supply of cruise vacations.
 - increase in the supply of cruise vacations.

1. As cruise line vacationers became ill, there was a decrease in the demand for cruises (a shift to the left in the demand curve). This created an excess supply of cruises at the initial equilibrium price and the price for cruises fell. As the price fell, there was an increase in quantity demanded of cruises (a movement down the new demand curve) and a decrease in quantity supplied (a movement down the supply curve). **Answer: B.**

2. If the market for pencils clears, then we know
- that everyone who wanted to buy a pencil can.
 - that everyone who wanted to sell a pencil can.
 - that everyone who wanted to buy or sell a pencil at the equilibrium price can.
 - that the market is not in equilibrium.

2. When the market for pencils clears, the market is in equilibrium. This means that at the market price the quantity demanded of pencils equals the quantity supplied of pencils. Some people may want to buy or sell a pencil but cannot or do not want to at that price. **Answer: C.**

3. Which of the following would lower the equilibrium price of tea?
- a decrease in the price of coffee
 - an increase in income and tea is a normal good
 - an increase in the price of inputs in the production of tea
 - an increase in a fungus that has destroyed a large proportion of the tea crop

3. The price of tea will fall if there is either a decrease in demand or an increase in supply. If there is a decrease in the price of coffee, quantity demanded of coffee will increase, and since coffee and tea are substitutes, the demand for tea will decrease. On the other hand, an increase in income will increase the demand for tea (tea is a normal good) and the price of tea would rise. Both the increase in the price of inputs and a destruction of the tea crop would decrease the supply of tea and its price would rise. **Answer: A.**

4. As a result of the increased wage package negotiated by the hospital and the hospital workers' union,
- quantity supplied of hospital services will increase, with no change in supply.
 - supply of hospital services will increase.
 - quantity supplied of hospital services will decrease, with no change in supply.
 - supply of hospital services will decrease.

4. Increased wages for hospital workers raises the cost of providing hospital services. The supply of hospital services will decrease. **Answer: D.**

5. The Smith family eats both meat and potatoes on a regular basis and we need to know how the family views these goods. If the price of meat rises and the family eats more potatoes, then the two goods must be

- substitutes.
- complements.
- inferior.
- normal.

5. As the price of meat rises, the family's quantity demanded of meat will fall. If at the same time it eats more potatoes, the family must be substituting potatoes for meat. The family views the two goods as substitutes. **Answer: A.**

6. Folklore tells us that pregnant women like to eat ice cream with pickles. If they were the only consumers of both goods, an increase in the price of pickles would

- decrease the demand for pickles.
- increase the demand for ice cream.
- increase the demand for pickles.
- decrease the demand for ice cream.

6. Ice cream and pickles are complements for pregnant women. As the price of pickles rises, there will be a decrease in the quantity demanded of pickles and a decrease in the demand for ice cream. **Answer: D.**

7. Which of the following statements is true?

- If two goods are complements, a decrease in the price of one good will cause the demand for the other good to decrease.
- If two goods are substitutes, an increase in the price of one good causes the demand for the other good to increase.
- The movement along a demand curve is caused by income changes.
- The movement along a supply curve is caused by changes in wages.

7. For substitutes, an increase in price of one good leads to a rightward shift in the demand curve of the other good. **Answer: B.**

8. For an inferior good, a fall in consumers' income combined with increases in production costs, will lead to a

- higher price of the inferior good.
- lower price of the inferior good.
- higher quantity (bought and sold) of the inferior good.
- lower quantity (bought and sold) of the inferior goods.

8. For inferior goods, a fall in income will lead to an increase in demand. Higher production costs mean lower output at given prices (i.e., a leftward shift of the supply curve). Therefore, price will definitely increase, but the effect on quantity is unknown, because we don't know the extent of the shifts. **Answer: A.**

Answer questions 9 and 10 on the basis of the following competitive model

$$Q = 400 - 15P + 2Y \text{ (Demand function)}$$

$$Q = -100 + 10P \text{ (Supply function)}$$

Where P is price, Q is quantity, and Y is income.

9. If $Y = 1,000$, the equilibrium P and Q are

- a. 100 and 900, respectively.
- b. 100 and 1,700, respectively.
- c. 180 and 900, respectively.
- d. 180 and 1,700, respectively.

9. When $Y = 1,000$, the demand function is $Q = 2,400 - 15P$

$$-100 + 10P = 2,400 - 15P$$

$$25P = 2,500$$

$$P = 100 \text{ and } Q = 900$$

Answer: A.

10. If income doubles, the new equilibrium P and Q will be

- a. 100 and 900, respectively.
- b. 100 and 1,700, respectively.
- c. 180 and 900, respectively.
- d. 180 and 1,700, respectively.

10.

$$-100 + 10P = 4,400 - 15P$$

$$25P = 500$$

$$P = 180 \text{ and } Q = 1,700$$

Answer: D.

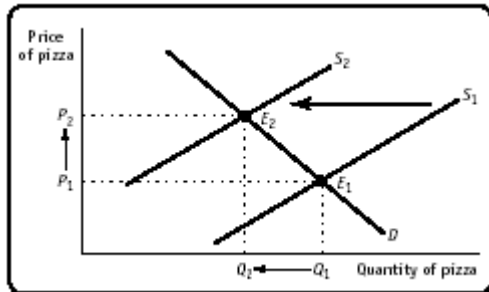
Problem

In the following questions, use a diagram to illustrate how each event affects the market equilibrium price and quantity of pizza.

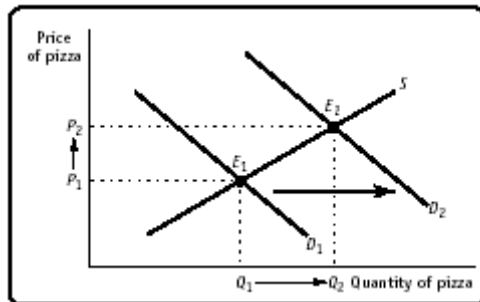
- a. The price of mozzarella cheese rises.
- b. The health hazards of hamburgers are demonstrated in a widely advertised campaign.
- c. The price of tomato sauce falls.
- d. The incomes of consumers rise and pizzas are inferior goods.
- e. Consumers expect the price of pizzas to fall next week.

Answer

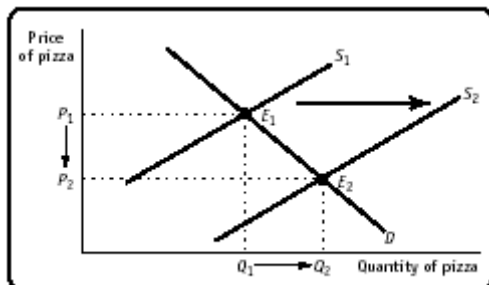
a. Mozzarella is an input in the production of pizza. Since the cost of an input has risen, pizza producers will reduce the quantity supplied at any given price, a leftward shift of the supply curve from S_1 to S_2 . As a result, the equilibrium price of pizza will rise and the equilibrium quantity will fall as the equilibrium changes from E_1 to E_2 .



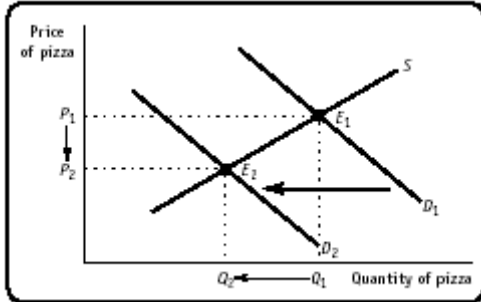
b. Consumers will substitute pizza for hamburgers, resulting in an increased demand for pizzas at any given price. This generates a rightward shift of the demand curve for pizza from D_1 to D_2 , and results in a rise in the equilibrium price and quantity as the equilibrium changes from E_1 to E_2 .



c. Tomato sauce is an input in the production of pizza. Since the cost of an input has fallen, pizza producers will increase the quantity supplied at any given price, a rightward shift of the supply curve from S_1 to S_2 . As a result, the equilibrium price of pizza will fall and the equilibrium quantity will rise as the equilibrium changes from E_1 to E_2 .



d. The demand for an inferior good decreases when the incomes of consumers rise. So a rise in consumer incomes produces a leftward shift of the demand curve from D_1 to D_2 , and results in lower equilibrium price and quantity as the equilibrium changes from E_1 to E_2 .



e. Consumers will delay their purchases of pizza today in anticipation of consuming more pizzas next week. As a result, the demand curve for pizzas today shifts leftward from D_1 to D_2 , and results in a lower equilibrium price and quantity as the equilibrium changes from E_1 to E_2 .

