

PROBLEM SET # 2 Answers
(CHP 3, Case, Fair and Oster)

1. The market demand and supply function for a commodity is given below:

$$Q_D = 120 - 4P$$

$$Q_S = -30 + 6P$$

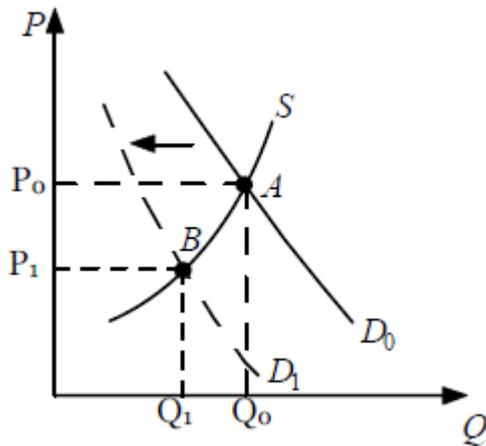
a. Find the equilibrium price and quantity.

$$\underline{120 - 4P = -30 + 6P \quad P^* = 15 \quad Q^* = 60}$$

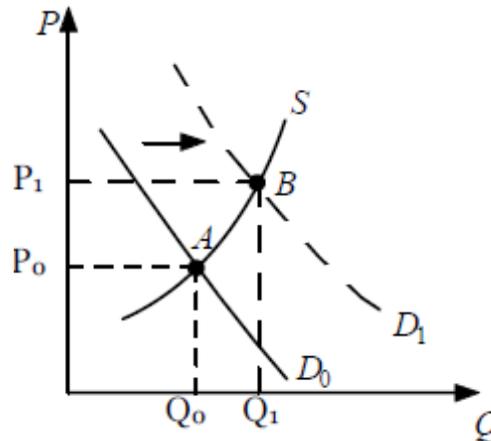
2. For each of the following, draw a diagram that illustrates the likely effect on the market for sausages. Indicate in each case the impact on equilibrium price and equilibrium quantity.

- a. A surgeon general warns that sausages are high-cholesterol food and they cause heart attacks.
- b. The price of egg, a complementary product, decreases.
- c. An increase in the price of spice used in the production of sausages.
- d. Hot-dogs become trendy in the cafes.
- e. A technological improvement occurred in sausage production.

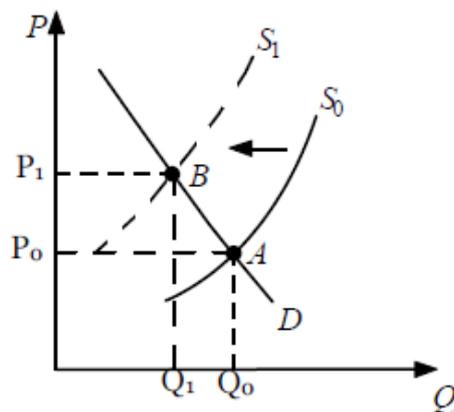
a. Eq. price decreases, eq. quantity decreases



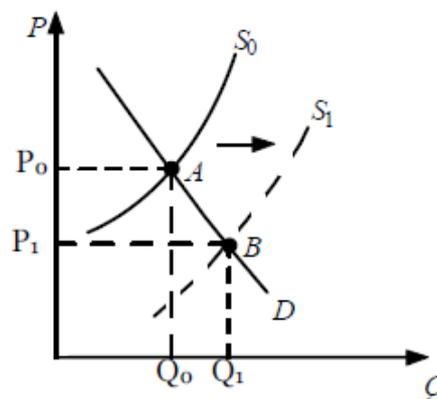
b.,d. Eq. price increases, eq. quantity increases



c. Eq. price increases, eq. quantity decreases



e. Eq. price decreases, eq. quantity increases.



PART B: MULTIPLE CHOICE QUESTIONS

1. A movement along a demand curve from one price-quantity combination to another is called

- a. a change in quantity demanded.**
- b. a change in demand.
- c. a change in supply.
- d. a change in quantity supplied.
- e. a shift in the demand curve.

2. An increase in the price of Coca-Cola, a substitute for Pepsi, will cause
- the quantity demanded of Coca-Cola to increase.
 - the demand for Coca-Cola to increase.
 - the demand for Pepsi to increase.**
 - the quantity demanded of Pepsi to increase.
 - the demand for Coca-Cola to decrease
3. A shift of a demand curve to the right or to the left is called
- a change in quantity demanded.
 - a change in quantity supplied.
 - a movement along a demand curve.
 - a change in supply.
 - a change in demand.**
4. Which of the following is NOT a characteristic of a market in equilibrium?
- Excess supply is zero.
 - All consumers are able to purchase as much as they wish.**
 - Quantity demanded equals quantity supplied.
 - The equilibrium price is stable, i.e., there is no pressure for it to change.
 - Excess demand is zero.
5. Assume the demand for sugar decreases while the supply increases. Which of the following outcomes will occur unambiguously?
- The equilibrium quantity of sugar will fall.
 - The equilibrium price of sugar will fall.**
 - The equilibrium quantity of sugar will rise.
 - The equilibrium price of sugar will rise.
6. What might cause a demand function to shift to the right?
- An increase in the price of a substitute.**
 - An increase in the price of a complement.
 - An increase in the product's own price.
 - A decrease in the price of a substitute.

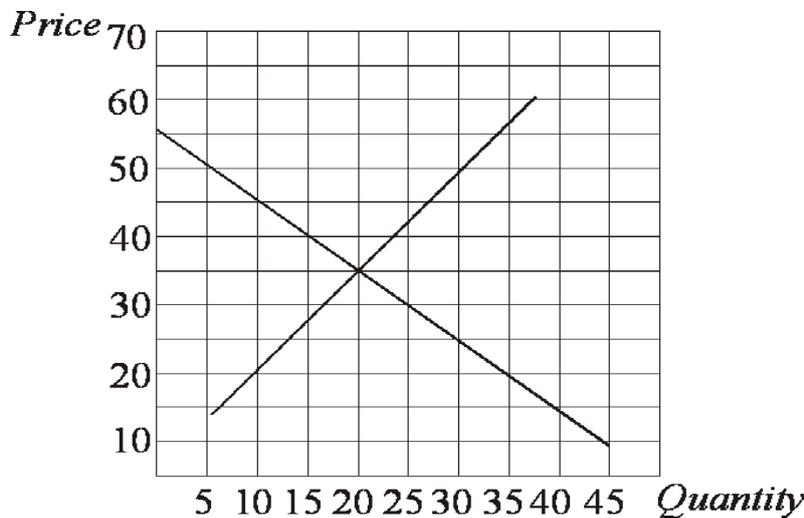
7. Suppose that the supply of Cornell parking spaces is fixed at 5,000, and the annual demand for these parking spaces is given as $Q_D = 5150 - \frac{1}{2}P$. What is the equilibrium annual price for parking at Cornell?

- a. \$9,700
- b. \$1,000
- c. **\$300**
- d. \$100

8. Good X is an inferior good. While the supply curve for Good X is positively sloped, a rise in consumer income will cause which one of the following?

- a. **The demand for Good X to fall and price of good X to fall.**
- b. The demand for Good X to fall and price of good X to rise.
- c. The demand for Good X to rise and price of good X to fall.
- d. The demand for Good X to rise and price of good X to rise.

Answer the following 2 questions according to the figure below:



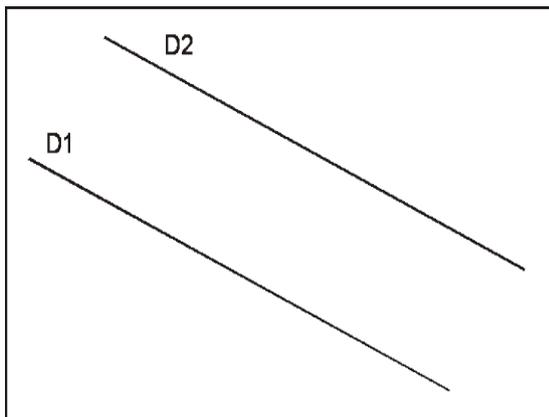
9. At a price of \$20,

- a. there would be an excess supply of 25 units.
- b. there would be an excess supply, but it is impossible to know by how much.
- c. **there would be an excess demand of 25 units.**
- d. the market would be in equilibrium.

10. When this market is in equilibrium,
- a. **price is \$35, and the quantity that will be sold is 20.**
 - b. price is \$25, and the quantity that will be sold is 20.
 - c. price is \$35, and the quantity that will be sold is 15.
 - d. price is \$30, and the quantity that will be sold is 15.

11. If the demand for steak increases as income increases, this means that steak is a(n)
- a. inferior good.
 - b. complementary good.
 - c. substitute good.
 - d. consumer good.
 - e. **normal good.**

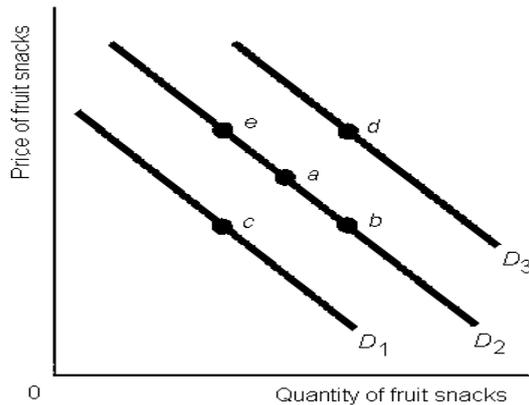
Answer the following 2 questions according to the figure below:



12. Moving from demand curve D1 to demand curve D2 illustrates a(n)
- a. decrease in demand.
 - b. **increase in demand.**
 - c. increase in quantity demanded.
 - d. decrease in quantity demanded.

13. Moving from demand curve D1 to demand curve D2 could be caused by a(n)
- increase in the price of a complement.
 - decrease in consumers' incomes, if the good is normal good.
 - decrease in the size of the population.
 - increase in the price of a substitute.**

Figure 4.1



14. In the figure above, which change reflects an increase in the price of a substitute for fruit snacks?
- From a to e.
 - From a to b.
 - From a to c.
 - From a to d.**
15. Which of the following is NOT held constant along a supply curve?
- Expected future prices.
 - The number of sellers.
 - The price of the good itself.**
 - Prices of resources used in production.

16. The law of demand states that, other things constant, there is:
- a positive relationship between income and quantity demanded.
 - a negative relationship between income and quantity demanded.
 - a positive relationship between price and quantity demanded.
 - a negative relationship between price and quantity demanded.**

17. Which of the following could not cause an increase in the demand for a commodity?

- a) An increase in income, if the good is a normal good
- b) A decrease in the price of a substitute**
- c) A decrease in the price of a complement
- d) An increase in preferences for the commodity

18. A decrease in quantity demanded is represented by a

- a) Rightward shift of the demand curve
- b) Leftward shift of the demand curve
- c) Movement upward and to the left along the demand curve**
- d) Movement downward and to the right along the demand curve

19. If L and M are complementary goods, an increase in the price of L will result in:

- a) An increase in the sales of L
- b) No change in either the price or sales of M.
- c) A decrease in the sales of M.**
- d) An increase in the sales of M.

20. Excess demand will exist when:

- a) market price is less than the equilibrium price.**
- b) market price is equal to the equilibrium price.
- c) quantity supplied exceeds quantity demanded.
- d) market price exceeds the equilibrium price.

21. In moving along a stable demand curve which of the following is not held constant

- a) The price of the product for which the demand curve is relevant**
- b) Consumer incomes
- c) The prices of complementary goods
- d) The prices of substitute goods

22. Which of the following statements is incorrect?

- a) If demand increases and supply decreases, equilibrium price will rise
- b) If supply increases and demand decreases, equilibrium price will fall
- c) If both demand and supply increases, equilibrium quantity will fall
- d) If supply declines and demand remains constant, equilibrium price will rise

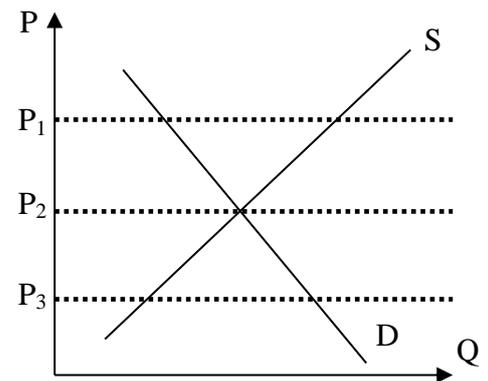
Answer the questions 23 – 24 according to the figure;

23. A price at which there would be a surplus of this product is

- a) P_1
- b) P_2
- c) both P_2 and P_3
- d) P_3

24. The price at which there would be a shortage of this good is

- a) P_1
- b) P_2
- c) both P_2 and P_3
- d) P_3



25. If supply were to increase, we would predict

- a) an increase in both P and Q
- b) a decrease in both P and Q
- c) an increase in P and a decrease in Q
- d) a decrease in P and an increase in Q

26. Suppose that in 1988, 1 million computers were sold at a price of \$3,000 and in 1989, 3 million computers were sold at a price of \$3,200. The most likely explanation for this is that in 1989 the _____ curve shifted to the _____.

- a) supply; left
- b) supply; right
- c) demand; left
- d) demand; right

27. Which of the following influences does NOT shift the supply curve?

- a) A rise in the wages paid workers
- b) Development of new technology
- c) People deciding that they want to buy more of the product
- d) A decrease in the number of suppliers

28. To say that “supply increases” for any reason, means there is a

- a) movement rightward along a supply curve.
- b) movement leftward along a supply curve.
- c) **rightwards shift in the supply curve.**
- d) leftwards shift in the supply curve.

29. The price of a good will tend to fall if

- a) there is surplus at the current price.
- b) the current price is above equilibrium.
- c) the quantity supplied exceeds the quantity demanded at the current price.
- d) **all of the above are true.**

30. A shift of the supply curve for coffee will be caused by

- a) a change in the price of a related good that is a substitute for coffee.
- b) a change in income.
- c) a change in price of coffee.
- d) **None of the above**