Econ 601: Basic Economic Analysis
Assignment #1- Topic: Supply, Demand, Prices

Problems

1. Plot the following demand and supply schedules on an accompanying graph, answer the questions (a) through (e)

   a. What is the equilibrium price and equilibrium quantity?
   b. How much of a shortage or surplus would occur at $2.50?
   c. How much of a shortage or surplus would occur at $7.50?
   d. What would happen if the government established a price floor of $8.75 on this item?
   e. What would happen if the government established a price ceiling of $8.75 on this item?

Price per item	Quantity Demanded	Quantity Supplied
$1.25	150	0
2.50	140	50
3.75	125	60
5.00	105	70
6.25	80	80
7.50	50	90
8.75	10	100
10.00	0	110

2. Calculate the price elasticity coefficient for demand or supply for each of the following. Identify whether the response is elastic, inelastic, or unitary elastic.

   a. The number of cans demanded of a soft drink increases by 30% after its price decreases by 40%.
   b. The number of available apartments increases by 8% following a 6% increase in rent.
   c. The number of Caesar salads demanded at a restaurant increases from 60 to 80 per week when the price falls from $5.00 to $4.50
   d. At a price of $200, 10,000 treadmills were supplied each month. Since the price increased to $250, 14,000 are supplied each month.
   e. The number of videotaped movies demanded each week from a rental store falls from 500 to 400 following an increase in the rental charge from $2.00 to $2.40.

3. The following table sows how the marginal benefit of shoes of given quality varies with the number Jill purchases each year. As shown, the price of shoes is $29.99 per pair.

Pairs purchased/year	**Marginal Benefit**	**Price**
1	$50	$29.99
2	40	$29.99
3	30	$29.99
4	20	$29.99
5	10	$29.99

a. Assuming that Jill is rational and the price of shoes accurately reflects the marginal cost to her, how many pairs of shoes will Jill buy per year?

b. Suppose the price of shoes rises to $39.99 per year. Assuming that nothing else changes, how many pairs will Jill buy?
c. Suppose that the marginal benefit per pair of shoes is exactly double that of Jill. If the price remains $29.99, how many pairs will he buy?

Multiple Choice Questions

1.Which of the following statements accurately illustrates an example of the "law of demand?"

a. As incomes have risen over time, demand has increased for luxury goods.
b. Recent increases in the domestic price of wine have decreased the demand for domestic wine.
c. In the past month the price of automobiles increased 8% leading to a decrease in quantity demanded of 10%.
d. All of the above statements illustrate the law of demand.

2. Which of the following statements are correct with respect to a DECREASE in the demand for good X?

a. Consumers are willing and able to purchase smaller quantities of good X at each possible price of good X.
b. Consumers purchase a smaller quantity of good X due to an increase in the price of good X.
c. The price of good X increases, ceteris paribus.
d. Decreases in the supply of good X make smaller quantities of good X available.
e. All of the above.

3. Which of the following could NOT cause a shift in the demand curve for Coca Cola, ceteris paribus.

a. It is discovered that drinking Coca Cola water causes cancer.
b. The price of pizza (a Coca Cola complement) decreases.
c. The price of Coca Cola increases.
d. Consumer incomes decrease.

4.Which of the following statements correctly represents a <u>change in demand</u>?"

a. Recent increases in the supply of IBM stock have led to a reduction in the price of IBM stock leading to an increase in demand for IBM stock.
b. Because of recent decreases in the price of home computers, consumers have increased their demand for word processing software.
c. The recent 5% increase in the price of gasoline has led to a 1% decrease in demand for gasoline.
d. All of the above.

5. The Law of Demand specifies that the quantity demanded of Good X is inversely related to the price of Good X.

a. True.
b. False.

6. Suppose generic soda is an inferior good and Pepsi is a normal good. If there is an increase in consumer income:

a . the demand for generic soda will decrease and the demand for Pepsi will increase.
b. the demand for both products will increase.
c. the demand for generic soda will increase and the demand for Pepsi will decrease
d. the demand for both goods will decrease.

7. In 1992, Pizza Pie was willing to offer for sale up to 1,000 pizzas per day at a price of $10.00 per pizza. In 1993 they are willing to offer up to 1,000 pizzas at $9.00 per pizza. One would say that there has been:

a. A decrease in demand.
b. A decrease in supply.
c. An increase in demand
d. An increase in supply.

8. The ICM Corporation was previously willing to supply 2,4000 stereos at a price of $337,47 per unit. This same supplier is now willing to supply 2,000 units at a price of $400 per unit. This change would be describe as a(n):

a. Increase in supply.
b. Decrease in supply.
c. Movement down their demand curve.
d. Movement up along their supply curve.

9. Assume a simultaneous change where: 1) consumers expect the future price of soda to increase, and 2) the supply of coffee (a substitute for soda) has just decreased. With these changes, one would expect to observe in the current soda market:

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

10. Ceteris paribus, an increase in the price of a good resulting from a shortage will:

a. decrease the supply of the good.
b. Decrease the quantity supplied of the good.
c. Decrease the demand for the good.
d. Decrease the quantity demanded of the good.

11. The quantity of shrimp purchased by consumers has increased by 12% over the past year in spite of the fact that the price has increased by 5%. A r4easonable explanation for this is that the demand for shrimp was also increasing over this period.

a. True.
b. False.

12. Droughts that destroy wheat crops in other countries would cause an increase in the demand for U.S. wheat resulting in higher wheat prices and an **increase** in the **supply of wheat**.

a. True.
b. False.

13. According to the Michigan Farmer's Almanac, "The drought of 1991 severely reduced the corn crop of Michigan farmers." Based on this information you would expect:

a. the market equilibrium price of Michigan corn to decrease.
b. the supply of Michigan corn to increase.
c. the demand for Michigan corn to decrease.
d. the equilibrium quantity of corn traded in Michigan to decrease.

14.The introduction of Digital Audio Tapes will revolutionize the recording industry. Compact discs and Digital Audio Tapes are substitutes. What affect will this have on the compact disc market?

a. Equilibrium price and quantity will both increase.
b. Equilibrium price and quantity will both decrease.
c. Equilibrium price will increase, equilibrium price will decrease.
d. Equilibrium price will decrease, equilibrium price will increase.

15. Assume farmers in Michigan can grow either corn or wheat. Ceteris paribus, a decrease in the profitability of growing corn would be expected to:

a. cause an upward movement along the market supply curve for corn.
b. increase the market supply of wheat-lowering farmer's reservation prices for supplying wheat.
c. decrease both the market and market supply for corn.
d. decrease the demand for wheat leading to an upward movement along the supply market curve for wheat.

16. The quantity of whole milk sold annually in the United States has decreased significantly while the price of whole milk remained relatively constant. The decrease in sales in conjunction with virtually no change in price implies that there has been:

a. an increase in demand.
b. an increase in supply.
c. a decrease in demand.
d. a decrease in supply.

17. Assume that the elasticity of demand for VCRs is 1.50 and 100 million are sold per year. Given only this information, one could estimate that a 20% increase in the price of VCRs (caused by higher taxes on firms) would lead to:

a. increased revenues from VCR sales and a reduction in sales of 30%.
b. decreased revenues from VCR sales and a reduction in sales of 30%.
c. increased revenues from VCR sales and a reduction in sales of 150%.
d. decreased revenues from VCR sales and a reduction in sales of 150%.

18. Which of the following cases illustrates a situation where demand is most price <u>inelastic</u>?

a. Wages rates for clerical workers increase by 20% and the number of workers hired decreases by 40%.
b. Gasoline prices rise from $1.00 per gallon to $1.25 per gallon and total sales revenue increases from $5,000/month to $6,000/month.
c. Prices for theater tickets fall by 10% and the number of tickets sold increases by 15%.
d. Gasoline prices fall from $1.25 per gallon to $1.09 per gallon and total sales revenues increase from $10,000 per month to $19,000 per month.

19. Which of the following statements regarding the expected effects of a price control in a competitive market is true?

a. A nonbonding price floor will generate a shortage since price is held below the equilibrium price.
b. A price floor below the equilibrium price will generate a quantity exchanged that is equal to the equilibrium quantity.
c. A price ceiling below the equilibrium price will generate an increase in supply since there is a shortage in the market.
d. A price floor above the equilibrium price will generate a larger quantity exchanged than equilibrium quantity since sellers will supply more at a lower price.

20. Assume that the government decides to increase excise taxes on cigarettes, partly to increase revenues and partly to reduce cigarette consumption. If the price elasticity of demand for cigarettes is $E_p=0.5$, by how much would the price of cigarettes have to increase to generate a 30% decrease in the quantity of cigarettes demanded?

a. 5%
b. 15%
c. 45%
d. 60%

21.Assume that there is a binding import quota placed on European cars slated to be imported in to the US. The impact on the market for US-made cars would be a(n):

a. increase in demand and increase in supply.
b. Increase in demand and increase quantity supplied
c. movement up the demand curve and up the supply curve.
d. movement up the demand curve and down the supply curve.

22. If sugar is sold in perfectly competitive markets, the **removal** of a binding quota on imported sugar would have the smallest impact on sugar prices if:

a. the demand for sugar is highly inelastic.
b. the demand for sugar is highly elastic.
c. the supply of sugar with no quota is highly elastic.
d. the supply of sugar with no quota is highly inelastic.