Lab 3 – Markets: Demand & Supply, Price Ceilings & Floors

Markets:

1. Composed of 2 main entities – consumers and producers
    a.
    b.
2. Markets dictate the equilibrium price and quantity that consumers are willing to pay and producers are willing to accept for goods and services.

Demand (consumer side):

1. Law of Demand –
2. Movement along the demand curve is a change in the quantity demanded. It is caused by a price change
3. A shift of the demand curve is a change in demand. It can be caused by many factors including:
    a.
    b.
    c.
    d.
    e.

Supply (producer side):

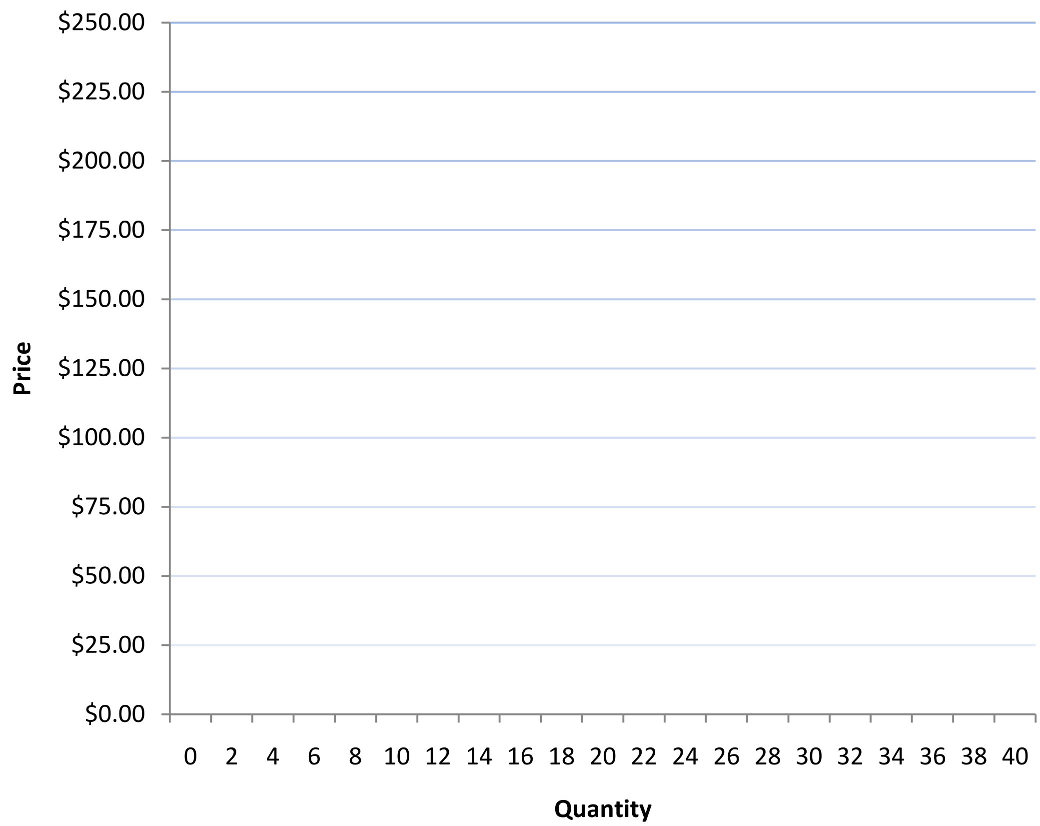
1. Law of Supply –
2. Movement along the supply curve is a change in the quantity supplied. It is caused by a price change
3. A shift in the supply curve is a change in supply. It can be caused by many factors including:
    a.
    b.
    c.
    d.
    e.

Shift of Curve or Movement along Curve?

1. When we shift the demand/supply curve, we have a "change in demand/supply"
    a. Factors for changes in demand - # of demanders, income changes, expectations of future prices, substitutes/compliments, and tastes/preferences
    b. Factors for changes in supply - # of suppliers, technology, expectations of future prices, price of inputs, and price of other goods that can be produced by using inputs owned/used by suppliers
2. When we move along the demand/supply curve, we have a "change in quantity demanded/supplied"
    a. When market price changes, we move along the demand/supply curve
    b. If demand shifts and supply remains constant, we have a change in quantity supplied
    c. If supply shifts and demand remains constant, we have a change in quantity demanded

Market Equilibrium:

1. When supply equals demand. Consumers are willing to pay a price exactly equal to that which suppliers are willing to accept for a good or service
2. Only one equilibrium price and quantity exists for a given supply and demand function
3. Assume NCSU would supply 1 ticket at $25, 2 tickets for $30 per ticket, 3 tickets at $35 per ticket, and so on until 40 tickets at $220 per ticket. Draw the supply curve. Add in the class demand curve from the previous example. What is the equilibrium price and quantity?



Price Ceilings and Price Floors:

1. Price Ceiling –
   a. When the price in a market is lower than the equilibrium price, a shortage results because consumers are willing to consume more than suppliers are willing to supply at that level
   b. Consumers want to consume more than suppliers are willing to supply at the given price
2. Price Floor –
   a. When the price in a market is higher than the equilibrium price, a surplus results because the quantity supplied is greater than the quantity demanded
   b. Suppliers are willing to supply more than consumers want to consume at the given price
3. In both cases, if the policy which set the price was abolished, then market forces will push the price towards to the equilibrium price.

Problems

1. For each of the following situations, tell whether there is either: 1) an increase in quantity demanded, 2) a decrease in quantity demanded, 3) an increase in demand, or 4) a decrease in demand.

    a. An increase in consumer income will result in ______________________ for a normal good.

    b. If there is an increase in the price of Coke relative to Pepsi, then there would be ___________________ for Coke and ___________________ for Pepsi.

    c. If NC says they will raises taxes on imported produce next week, then there would be __________________ for imported produce this week.

    d. If the price of kiwi fruit goes down today, then there would be __________________ for kiwi fruit today.

    e. A price war in the computer industry has decreased the price of PCs. This has led to ___________________ for PCs and ___________________ for computer monitors.

    f. In the early 2000s, it suddenly became "uncool" to listen to boy bands and so this caused ___________________ for the Backstreet Boys concert tickets.

2. For each of the following situations, tell whether there is either: 1) an increase in quantity supplied, 2) a decrease in quantity supplied, 3) an increase in supply, or 4) a decrease in supply.

    a. Advances in robotic technology can result in ________________ of automobiles.

    b. A textile manufacturer can use its inputs to make towels or terry cloth bath robes. If it becomes more profitable to make towels because of an increase in the price of towels, then there would be _______________________ of towels and _________________________ of bath robes.

    c. The increased number of sub shops on Hillsborough Street has _____________________ of subs.

    d. The major oil companies expect the price of gasoline to rise next month. Therefore, there would be ____________________ of gasoline this month.

    e. Poor weather in the Midwest would __________________ of wheat.

    f. A lower price for paper would ___________________ of paper.

3. As we have seen, a ticket lottery for NCSU football tickets leads to a shortage in student tickets. How can you eliminate a shortage of student tickets? Explain.

4. Let's assume that Raleigh has an equilibrium of wages for unskilled workers at $7 per hour.
    a. Draw a supply and demand graph. Label the price and quantity P_0 and Q_0
    b. Show the effect of a $5.15 minimum wage. Label the new price and quantity P_1 and Q_1
    c. Show the effect of a $7.50 minimum wage. Label the new price and quantity P_2 and Q_2

5. The market equilibrium rent per room in a small city is $150. A rent control law is passed that establishes a price ceiling of exactly $150 per room.
    a. Draw a supply and demand graph. Label the price and quantity P_0 and Q_0
    b. What will be the impact of the law on the market for rental housing?
    c. Suppose after rent controls have been passed, a major corporation announces that it will build a new factory employing 10,000 workers. Show how this affects the market for rental housing. [Assume that new housing is not built]