In-Class Exercise

1. Some practical things that we use every day may have little value in exchange. For example, you can buy a bottle of fresh water in Hawaii at a very cheap price. On the other hand, some "useless" things may have high value in the exchange, such as diamonds. The price of a small diamond in Hawaii is much higher than the price of a bottle of water. Explain why diamond is more expensive than water in Hawaii in economics terms.

2. It costs an airline $50,000 to fly a plane seating 100 passengers from London to New York. (So the cost of operating the plane is $500 per seat). The airline usually charges $750 per ticket. Let's say that, on one particular day, the airline has only been able to book 50 passengers for the London-NY flight. Half of the seats are therefore empty (assume that the airline is bound by law not to cancel flights due to booking concerns). At the last minute, a group of 50 students comes up to the check-in desk and says to the sales associate, "We'd really like to get on this flight, but can only pay $250 per ticket." Putting aside concerns about fairness for the moment, what would you recommend to the airline? Should it sell the remaining tickets for $250 a piece? Explain your answer.

3. Victor earns $150 in January. Draw his budget line for movies ($5 each) and meals out ($10 per restaurant visit). In February, the price of a meal jumps to $15. Draw Victor's new budget line. In March, Victor receives a $30 raise. Draw his budget constraint for March. (Assume that movie and meal prices have not changed since February).

4. Using diagrams show what changes in price and quantity would be expected under the following scenarios. Also, state whether each scenario results in movement along the demand/supply curve movement of the demand/supply curve.

a. Thanks to a frost, orange crop yields fall this year. Use the supply and demand graph to show what happens in the market for orange juice.

b. Researchers discover that apple juice has many previously unknown health benefits. What effect might this development have on the orange juice market? Use the graph to illustrate your answer.

c. A new technology on pasteurization cuts the production cost for orange juice companies. Use the graph to show how this new technology impacts the orange juice market.

5. The supply and demand functions for movie tickets are given by the following equations: $Q_D = 20-P$ and $Q_S = 2P-10$.

       a). Graph the supply and demand curves

       b). Find the equilibrium price and quantity

       c). Find the consumer and producer surpluses

The creation of Netflix has caused consumer demand for movie tickets to decrease. Demand for tickets is now $Q_D = 17-P$.

       a). What is the new equilibrium price and quantity?

       b). Graph the new supply and demand curves.

       c). What are the new consumer and producer surpluses?

       d). Are movie theaters now worse off? How about consumers?

6. Karen's demand for peaches is $P = 4 - Q/2$. If the price of peaches increases from \$1 to \$2, what would be her change in consumer surplus? Sketch the graph and calculate the consumer surplus.