Experiment 2

Each of you has been assigned to be either a buyer or a seller. If you are a buyer then the information sheet will tell you how you value the good, and if you are a seller then the information sheet tells you how much your cost of selling the good is. Suppose you are a buyer and that your information sheet states that your value of the unit is $5, then that implies that you are willing to pay at most $5 for a unit of the good. If you can buy a good for less than $5, you will make a profit equal to $5-the price you pay. Likewise if you are a seller and your unit cost is $3, then you will need to sell the good for a price which exceeds $3 in order to make a profit. Suppose you sell the good for $5, then your profit is $5-$3=$2.

Each buyer and seller has a different set of values and costs. At the end I will choose one of the forms at random and you will be paid your cumulative earnings. Remember that the secret to maximizing your profit is to: BUY LOW AND SELL HIGH.

The method that we will use to buy and sell the goods is called a double oral auction. The way it works is that one of you has to start out by proposing a price that you are willing to pay for the good (the bid-price) or a price at which you are willing to sell the good (ask-price). Once a bid-price has been suggested, another bid-price can be made only if it exceeds the current bid-price. Likewise another ask-price can be made only if it is lower than the current ask-price. Suppose for example that the bid-price is $1, and the current ask-price is $8, then a new bid-price must be larger than $1, and a new ask-price must be smaller than $8. If you see a bid or ask-price that you are willing to accept, then you should immediately say ACCEPTED! If a bid or ask-price gets accepted, the good is sold and the buyer and seller should make a note of the sale and their earnings.

GOOD LUCK!
Class Exercise

1. First trading period: For the first trading period the market demand can be described by the equation $q_D = 16 - 2 \cdot p_D$, and the market supply by the equation $q_S = 2 \cdot p_S$.
   a. Draw a picture of the demand and supply curve

   ![Diagram of demand and supply curve]

   b. What is the predicted equilibrium quantity and price?

   c. How does the predicted equilibrium price compare to the average price we observed in this period?

   d. How does the predicted equilibrium quantity compare with the number of trades we observed in this period?
e. What is the elasticity of demand at the predicted equilibrium?

f. What is the elasticity of supply at the predicted equilibrium?

2. Second trading period: In this period a quantity tax of $1 was imposed on all the sellers.
   a. What is the predicted equilibrium quantity and price in the second trading period?

b. What is the predicted ratio of the tax imposed on the buyers relative to that on the sellers $t_B/t_S$?
   Use your answer to 1.e. and 1.f. to provide a verbal explanation for the size of this ratio

c. How does the predicted equilibrium price compare to the average price we observed in this period?

d. How does the predicted equilibrium quantity compare with the number of trades we observed in this period?
3. Third trading period: In this period a quantity tax of $1 was imposed on all the buyers.
   a. What is the predicted equilibrium quantity and price in the third trading period?

   b. How does the predicted equilibrium price compare to the average price we observed in this
      period?

   c. How does the predicted equilibrium quantity compare with the number of trades we observed
      in this period?

4. Do sellers prefer that the tax is imposed on the buyers or on the sellers? Why?