Homework # 6

<u>This is for practice only</u>. You do not have to turn this homework in, but you should be familiar with the answers in preparation for the final exam. We will go over the answers in class on **Thursday, April 19**. Try to work out the answers on your own first.

1. Suppose that nine people will vote on the amount of money to spend on a certain activity. Each person's preferences are as follows. He or she has one spending level that is most preferred; furthermore, any spending closer to the most preferred level is preferred to spending further from it. The table below shows the number of people who hold each most-preferred spending level.

Number of Voters	Most preferred spending level
4	$10
2	$15
1	$30
2	$40

If the majority rule voting outcome is consistent with the median voter theorem, what level of spending will be selected by a vote among these 9 voters?

2. Consider a market with 5 buyers and 5 sellers. Each buyer wants to buy a single unit of a good and each seller has a single unit to sell. Suppose that buyer B1 values a unit of the good at 29, buyer B2 at 46, buyer B3 at 33, buyer B4 at 42 and buyer B5 at 36. Suppose that seller S1's cost is 39, seller S2's cost is 41, and sellers S3, S4 and S5 each have a cost of 36.

   a. Draw a graph illustrating the demand and supply "curves" for this good. What is the equilibrium price and quantity sold?
   b. Do all buyers and sellers get to buy and sell one unit? Explain why or why not.
   c. Now suppose that due to a rise in fuel prices, the cost to each seller of bringing a unit of the good to market rises by 4. The buyers' valuations do not change. Draw the new supply curve together with the old demand curve. What is the new equilibrium price and quantity sold?