# Econ_101_Spring 2007_IVY Tech College <br> Homework_02: Solutions 

Chapte_02

1. Figure 2-A shows the supply and demand curves for CD players. Complete the following statements.
a. At the market equilibrium (shown by point ___), the price of CD players is $\qquad$ and the quantity of CD players is $\qquad$ _.
w, \$150, 100
b. At a price of $\$ 100$, there would be a $\qquad$ of CD players, so we would expect the price to $\qquad$ (fill in with "increase" or "decrease").

## shortage, increase

c. At a price exceeding the equilibrium price, there would be a $\qquad$ of CD players, so we would expect the price to $\qquad$ (fill in with "increase" or "decrease").
surplus, decrease
2. The following table shows the quantities of corn supplied and demanded at different prices.

| Price <br> per Ton | Quantity <br> Supplied | Quantity <br> Demanded | Surplus (+) or <br> Shortage ( - ) |
| :--- | :---: | :--- | :--- |
| $\$ 80$ | 600 | 1,200 | shortage |
| $\$ 90$ | 800 | 1,100 | shortage |
| $\$ 100$ | 1,000 | 1,000 | neither |
| $\$ 110$ | 1,200 | 800 | surplus |

a. Complete the table. (bold entries above)
b. Draw the demand curve and the supply curve. (see below)
c. What is the equilibrium price of corn? $\mathbf{\$ 1 0 0}$

3. Consider the market for personal computers. Suppose that the demand is stable: the demand curve doesn't change. Predict the effects of the following changes on the equilibrium price of computers. Illustrate your answer with a supply and demand diagram.
a. The cost of memory chips (one component of a computer) decreases.

Supply increases, so price falls and quantity rises. (Qa, Pa below)
b. The government imposes a $\$ 100$ tax on personal computers.

Supply decreases (this has the same effect as a rise in costs), so price rises and quantity falls. (Qb, Pb below)

4. Draw a supply-demand diagram to illustrate the effect of an increase in income on the market for restaurant meals.

Demand rises; price and quantity rise.
5. Suppose that the tuition charged by public universities increases. Draw a supply-demand diagram to illustrate the effects of the tuition hike on the market for private college education.

Demand for private college increases (as the price of a substitute has risen); price and quantity rise.

6. Suppose the government imposes a tax of $\$ 1$ per pound of fish and collects the tax from fish producers. Draw a supply-demand diagram to illustrate the effects of the tax.

Supply decreases; price rises and quantity falls.
10. Suppose a freeze in Florida wipes out $20 \%$ of the orange crop. How will this affect the equilibrium price of California oranges? Defend your answer with a graph.
Florida and California oranges are substitutes. The supply decrease for Florida oranges means that their price will rise. This will cause an increase in demand for California oranges. (Note that the impact in the Florida market is a movement along the demand curve whereas the impact on the California market is a shift in the demand curve.)

