## Name:

Panther ID:

## Homework \#1 (Part of Solutions)

## Note: All homework must be submitted in hard copy (no email submissions accepted). No late homework will be received.

1. The following figure shows the production possibilities frontier for country A , an agrarian nation that produces two goods, meat and vegetables. Refer to this figure, what is the opportunity cost of one pound of vegetables for country A ?


Answer: the opportunity cost of one pound of vegetables for country A is 0.75 pound of meat.
2. Following table shows the output per week of two jewelers, Serena and Haley. They can either devote their time to making bracelets or making necklaces.

|  | Serena | Haley |
| :--- | :--- | :--- |
| Bracelets | 8 | 9 |
| Necklaces | 16 | 12 |

a) Fill in the following table with the opportunity costs of making bracelets and necklaces for Serena and Haley.

|  | Serena | Haley |
| :--- | :--- | :--- |
| Bracelets |  |  |
| Necklaces |  |  |

b) Who has an absolute advantage in making Bracelets? Explain.

Answer: Haley has an absolute advantage in making Bracelets.
c) Who has the comparative advantage in making Bracelets? Explain.

Answer: Haley has the comparative advantage in making Bracelets.

3, For each of the following scenarios, use a supply and demand diagram to illustrate the effect of the given shock on the equilibrium price and quantity in the specified competitive market. Explain whether there is a shift in the demand curve, the supply curve, or neither.
a) An unexpected temporary heat wave hits the Country A. Show the effect in the ice cream market in Country A

The demand for ice cream goes up, so the demand curve for ice cream shifts to the right. Both the equilibrium price and equilibrium quantity increase.
b) The government introduces a tax on ice cream which is paid by producers. What is the effect in the ice cream market.

The supply for ice cream goes down, so the supply curve for ice cream shifts to the left. The equilibrium price increases and equilibrium quantity decreases.
c) Country A is a major producers of textiles. Workers in country A decide to go on strike. Show the effect on the market for country A'textiles

The supply for country A's textiles goes down, so the supply curve for country A's textiles shifts to the left. The equilibrium price increases and equilibrium quantity decreases.

4, Assume cars and gasoline are complements. When the price of gasoline goes up, what do we expect to happen to the equilibrium price and equilibrium quantity in the market for cars? Explain your answer using a graph.
The demand for cars goes down, so the demand curve for cars shifts to the left. Both the equilibrium price and equilibrium quantity decrease.

5, Suppliers produce two goods, cheese and butter. Assume that there is no cost to switch resources from cheese production to butter production and vice versa. Suppose the demand for butter increases. What do we expect to happen to the equilibrium price and equilibrium quantity in the market for cheese? Explain your answer using a graph.

The supply for cheese goes down, so the supply curve for cheese shifts to the left. The equilibrium price increases and equilibrium quantity decreases.

6, Assume that the demand for coffee is represented by the equation $Q^{D}=600-2 P$ and supply by the equation $Q^{S}=300+4 \mathrm{P}$, where $\mathrm{Q}^{\mathrm{D}}$ and $\mathrm{Q}^{\mathrm{S}}$ are quantity demanded and quantity supplied respectively, and P is price. Using the equilibrium condition $\mathrm{Q}^{\mathrm{S}}=\mathrm{Q}^{\mathrm{D}}$ solve the equation to determine the equilibrium price and quantity.

The equilibrium price equals 50 , the equilibrium quantity equals 500 .

