## Economics 102

Fall 2007
Homework \#1

1. Cheri earns $\$ 10$ an hour as a tour guide for her university. She is scheduled to work for eight hours on Friday, but is considering calling in sick so that she can go see her favorite a cappella group perform. A ticket to the show will cost her $\$ 30$, plus $\$ 5$ for transportation costs. What is Cheri's opportunity cost if she decides to see the show?
2. Which of the following statements are normative, and which are positive?
a) The federal government should change the income tax structure so that the people with the highest income levels will have to pay a higher percentage of their income.
b) Tariffs ultimately hurt consumers by increasing domestic prices.
c) Labor unions should try to prevent outsourcing of manufacturing jobs overseas to protect the manufacturing industry in the United States.
3. Examine the following production possibilities frontiers for the United States and Japan.

a) What are the slopes of the two lines?
b) Your friend Casey makes the following claim. "Since Japan has an absolute advantage in the production of both cars and TV sets, there is no reason for them to trade with the United States, since they cannot possibly benefit from trade." Assess the validity of this claim. Do you agree or disagree? Why or why not?
4. The following describes the market for iPods.

Demand: $\mathrm{P}=1000-20 \mathrm{Q}$
Supply: $\mathrm{Q}=.2 \mathrm{P}$
a) Determine the equilibrium quantity.
b) Determine the equilibrium price.
c) Graph the supply \& demand functions. Remember to graph price on the vertical axis and to graph quantity on the horizontal axis. Label the equilibrium quantity and price on your graph.
5. Write the equations of the following lines in the form $y=m x+b$. Also graph the lines (be sure to label the y-intercept).
a) The line connecting the points $(3,8)$ and $(5,12)$
b) The line connecting the points $(6,10)$ and $(8,10)$
c) The line passing through the point $(4,8)$ with a slope of 3 .
d) The line with a y-intercept of 5 , and passing through the point $(2,9)$

