Economics 301  
Spring 2006  
Problem set # 3

Name: ________________________________

1. Perloff, third edition: question 9 page 71

2. Perloff, third edition: question 18 page 71

3. Perloff, third edition: question 1 page 104

4. Perloff, third edition: question 15 page 105
6. Suppose a consumer has an income of $500 and faces prices $p_X = 5$ and $p_Y = 10$.

1. Write the equation of the budget constraint.

2. Draw the budget constraint, placing good $X$ on the horizontal axis. Label $BC$.

3. What is the slope of $BC$?

4. Suppose income decreases to $300. Draw the new budget constraint and label it $RS$.

7. Consider two goods that are perfect substitutes. What is likely to be true about their relative prices? Can you confirm your hypothesis with examples?

8. For each of the utility function below, draw a set of indifference curves showing utility levels $U = 12$, $U = 16$, $U = 24$.

5. (a) $U = XY$
   (b) $U = X + Y$
   (c) $U = X - Y$
   (d) What is true about commodities in (b)
   (e) What about commodities in (c)?