

Homework 1: Opportunity Costs, Supply & Demand

ECON 102 – Microeconomics
Professor Schenk
Due: November 1, 2011

1. Go to www.politicalcompass.org/test and fill out the form. Which quadrant (square) do you belong? Did this surprise you? Include a copy of the results.
2. On Tuesday, October 25th the class met for the first time. What were your alternative options instead of attending class? Assume you were able to skip class that night without incurring a penalty, what was your total opportunity cost expressed in dollars? Please note, even though activities do not have an explicit monetary value, try to assign a dollar amount by estimating how much you would pay to do the activity (e.g., spend time with family).
3. Recent Census estimates show the median income for an individual with a high school diploma is \$21,079. Meanwhile, the tuition for full-time Grand View students is \$18,944 (Reference: <http://www.census.gov/population/socdemo/education/cps2006/tab08-1r.xls>).
 - a. What is the accounting cost of a high school graduate attending Grand View for a year?
 - b. What is the opportunity cost of a high school graduate attending Grand View for a year?
4. The median earnings for Bachelor's recipients is \$40,166, compared to \$21,079 for high school graduates. College students typically forgo current income to attend college in order to earn higher income in the future. This concept is called *intertemporal trade-off*. Below is a table showing current income and income later in life. The table represents a hypothetical trade-off between earning more now (and spending less time in college) and future income.

<u>Current Income</u>	<u>Future Income</u>
\$10,000	\$80,000
\$20,000	\$75,000
\$30,000	\$65,000
\$40,000	\$50,000
\$50,000	\$30,000

- a. Draw a production possibilities frontier with current income on the x -axis.
- b. What is the marginal opportunity cost of moving from \$10,000 in current income to \$20,000? Similarly, what is the marginal opportunity cost of moving from \$40,000 to \$50,000 in current income?
- c. Does the table exhibit increase, constant, or decreasing marginal opportunity cost? How do you know?

5. Suppose there are two countries, United States and Uganda, and two types of goods, textiles and computers. Below is the production schedule for each country:

United States		Uganda	
<u>Computers</u>	<u>Textiles</u>	<u>Computers</u>	<u>Textiles</u>
0	4,000	0	5,000
1	3,000	1	2,500
2	2,000	2	0
3	1,000	3	--
4	0	4	--

- a. Draw the production possibilities frontier for both countries with computers on the x-axis.
 - b. Draw the combined PPF.
 - c. What country, if any, has the comparative advantage for producing computers? Why would that country have that comparative advantage?
 - d. Label the point where trade will occur. Mark it with "T".
 - e. Should both countries engage in trade? Why or why not?
6. Assume the demand curve from Question 6 shifts. On the same graph from the previous question, plot the following points:

United States		Canada	
<u>Computers</u>	<u>Textiles</u>	<u>Computers</u>	<u>Textiles</u>
0	4,000	0	2,000
1	3,000	1	1,000
2	2,000	2	0
3	1,000	3	--
4	0	4	--

- a. Draw the production possibilities frontier for both countries with computers on the x-axis.
- b. What country, if any, has the comparative advantage for producing computers? Why would that country have that comparative advantage?
- c. Should both countries engage in trade? Why or why not?

You're Done!