Problem Set 3
Due: September 19, 2003.

1. In a two-person, two-good world, could one person have a comparative advantage in both goods? Explain.

2. Martha can fix a meal in 1 hour, and her opportunity cost of one hour is $50. Stewart can fix the same kind of meal in 2 hours, and his opportunity cost of one hour is $20. Will both Martha and Stewart be better off if she pays him $45 per meal to fix her meals? Explain.

3. Suppose that Jerry can produce 2 snowmen or 200 snowballs per day, and George can produce 3 snowmen or 300 snowballs per day. Will it pay for Jerry and George to specialize and trade? Explain.

4. Consider a world that consists of two countries. Country A produces bread and circus using labor and capital. Each unit of bread requires 3 units of labor and 2 units of capital. Each unit of circus, on the other hand, requires one unit of labor and 6 units of capital. The resources of country A consist of 12 units of labor and 24 units of capital.

Economy B also produces bread and circus, but with a different technology. Each unit of bread requires only one unit of labor and one unit of capital, whereas each unit of circus requires 2 units of labor and one unit of capital. Country B’s resources consist of 10 units of labor and 3 units of capital.

(a) Build country A’s production possibilities frontier.
(b) Is the production of 3 units of bread and one unit of circus an efficient production plan for country A?
(c) Build country B’s production possibilities frontier.
(d) Is the production of 1 unit of bread and 2 units of circus an efficient production plan for country B?
(e) Show two different ways in which the world economy can produce 4 units of bread and 4 units of circus.
(f) Draw the production possibilities frontier of the world economy.
(g) If the world economy is producing 5 units of bread and 4 units of circus, what is the production level of each country?
(h) If the world economy is producing 5 units of bread and 4 units of circus, and if the “international community” decided to produce one more unit of circus, which country should produce it? What is the opportunity cost of one unit of circus for the world economy?

Challenge questions:

(a) What can you say about the comparative advantage of each country?
(b) Assume that the price of bread in the international market is $p_B = 1$ and the price of circus is $p_C = 4$. What is the bundle of commodities that is feasible in country A that is worth the most at these prices? What is country B’s feasible bundle that is worth the most?
(c) What would your answer be if $p_B = 1$ and $p_C = 2$?