Economics 2000 Exercise: Comparative Advantage

Michael J. Murray, Ph.D.

Department of Economics

Directions: In class, we learned about the law of comparative advantage, a model which can be used to model international trade. Answer the following questions using the information provided below. All units of measure (of barrels of oil or autos) are reported in millions per year.

Production Possibilities Schedule for Canada and Mexico

Canada		Mexico	
Oil	Automobiles	Oil	Automobiles
400	0	200	0
320	48	160	40
240	96	120	80
160	144	80	120
80	192	40	160
0	240	0	200

1. Draw the production possibilities curves for Canada and Mexico (on separate graphs). Which country or countries exhibits constant opportunity cost, if any?

2. Suppose Canada chooses to produce at point (240, 96) and Mexico at point (120, 80). What is the total amount of autos and the total amount of oil produced by the two countries?

3. Which country has the absolute advantage in oil production? In autos?

4. Which country has the comparative advantage in oil production? Which country has a comparative advantage in auto production?

5. If each country specializes (complete specialization) based on comparative advantage, which country will specialize in oil and which one will specialize in autos? What is the total amount of autos and oil produced by the two countries?

6. After complete specialization, both countries agree to this trade: 160 m. barrels of oil for 120 m. autos. What is the post-trade distribution of autos and oil, i.e. how much autos and oil will Canada and Mexico have at the end? Illustrate the post-trade results on the graphs from Question 1.