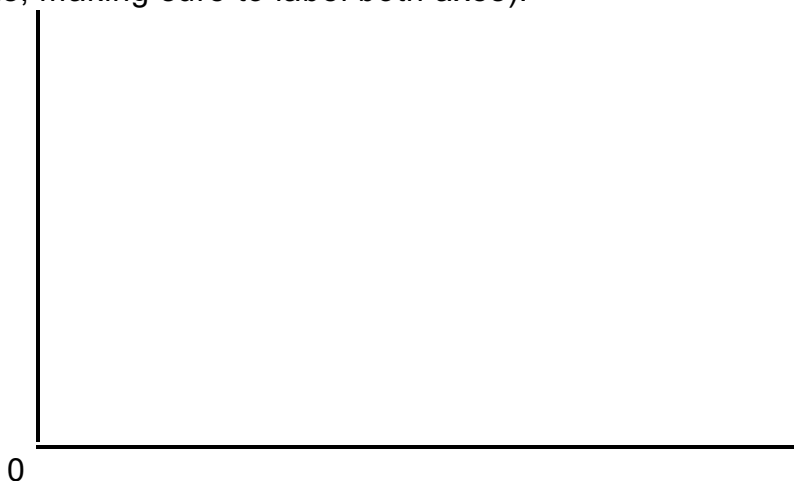


**Economics 452 International Trade Theory and Policy**

1. Home has 1200 units of labor available. It can produce two goods, apples and bananas. The unit labor requirement in apple production is 3, while in banana production it is 2.
  - a. Write the equation for Home's PPF (in labor constraint form with general notation, with numbers plugged in, and in slope-intercept form).

Determine Home's maximum production of apples and bananas.

Graph Home's production possibilities frontier (with bananas on the vertical axis, making sure to label both axes).



- b. What is Home's opportunity cost of apples in terms of bananas and what is its interpretation? Where does it appear in the PPF equation?
    - c. In the absence of trade, what would the price of apples in terms of bananas be and why?

2. Home is as described in problem 1. There is now another country, Foreign, with a labor force of 800. Foreign's unit labor requirement in apple production is 5, while in banana production it is 1.
- a. Write the equation for Foreign's PPF (in all three forms).

Determine Foreign's maximum production of apples and bananas.

Graph Foreign's production possibility frontier.



- b. What is Foreign's opportunity cost of apples in terms of bananas?
- c. Describe the pattern of comparative advantage: which country has comparative advantage in which good and why?

3. Now suppose world relative demand takes the following form: Demand for apples/demand for bananas = price of bananas/price of apples

$$RD = D_A/D_B = P_B/P_A.$$

- a. What is the world relative supply of apples to bananas if each country produces only its comparative advantage good? Construct the world relative supply curve for apples in terms of bananas. Graph the relative demand curve for apples in terms of bananas along with the relative supply curve.



- b. What is the equilibrium relative price of apples in terms of bananas?

Compare it to the price of apples in terms of bananas in each country in the absence of trade.

- c. What does each country produce under free trade? Describe the pattern of trade: identify which country exports apples and which exports bananas.

