Sample Problems : Chapter 2

Ricardian Model

Q1.

MPL Labor Endowments

Beer Wine

Germany 1/10 1/20 800

Japan 1/125 1/500 10000

1. Draw the PPF for Germany and Japan. Please label the maximum beer output and maximum wine output.
2. Which country has absolute advantage in the production of Beer? Wine?
3. Which country has a comparative advantage in the production of Beer? Wine?
4. True or False: Under no trade, the real wage in terms of beer equals 1/10 for both beer and wine workers in Germany.
5. True or False: Under free trade, the lower limit of the free-trade equilibrium price of beer in terms of wine equals ¼.
6. True or False: Under free trade, the world output of beer equals 80.

Assume that the free-trade equilibrium price of beer in terms of wine is 1/3 (i.e. PbeerT/PwineT = 1/3).

1. True or False: Japanese workers’ real wage in terms of wine is 1/375.
2. True or False: Going from closed-economy to free trade, the real wage for wine increases in Japan, but the real wage for beer stays the same.

**Q2**.

Suppose the Home economy has 100 workers, marginal product of labor for apples =4, apples, and marginal product of labor for shirts = 4.

Foreign has 100 workers, marginal product of labor for apples =8, marginal product of labor for shirts = 6.

1. In the no trade equilibrium, what are the relative prices of apples in Home and in Foreign? what are the relative prices of shirts in Home and in Foreign?
2. What range of relative prices could be observed in a trade equilibrium?
3. Draw the production possibility frontier, world price and indifference curves for each country for a trade equilibrium when the relative price in the world market is 7/8. Label the intercepts of the world price line and PPF.

Now suppose, in the no trade equilibrium, consumers in Home demand 175 apples and consumers in Foreign demands 400 apples.

1. Draw Home export supply curve, with relative price of shirts on y axis and quantity of shirts on the x-axis.
2. Add Foreign import demand curve to the diagram so that the world relative price of shirts is between the two countries’ no-trade relative prices.
3. Suppose the number of workers in Home were to double. How would this change shift Home export supply curve?