

Homework 1 Answers

True/False/Uncertain: For each question, answer T/F/U and briefly explain the answer. (No points for an unsupported answer).

1. Of all the four types of international integration (trade in goods, labor mobility, foreign investment, and trade in ideas), only trade in goods were common prior to the 20th century.

False. Trade in goods and labor mobility were common prior to the 20th century. Foreign investment (especially MNCs) and trade in ideas (intellectual property) has become more common in the 20th century.

2. US trade has grown steadily throughout the 20th century.

False. US trade grew steadily until the Great Depression, when a combination of the Smoot-Hawley tariff and dramatically reduced incomes severely curtailed trade. Trade has grown steadily subsequent to World War II.

3. Hiring a neighborhood kid to mow my lawn would cost \$20. Since I don't have to pay myself I should take 2 hours on Saturday and mow it on my own.

Uncertain. While I don't pay myself cash to mow the lawn, I am giving up 2 hours that I could be doing something else with (consulting, writing problem sets, relaxing and watching a football game.) I should only mow the lawn if the value of my time is less than \$20.

4. Finite resources force people/firms/countries to specialize.

True. Finite resources imply that doing one thing precludes me from doing something else. This is an opportunity cost. If I had infinite resources one activity would not "crowd out" another activity.

5. Wages in the US are \$15/ hour while wages in Mexico are \$3/hour. Goods manufactured using only labor will be 5 times cheaper in Mexico.

False. The goods price depends on both productivity (number of workers needed to produce it) and the wage they are paid. The above statement would only be true if productivity were equal in the US and Mexico. But if productivity were equal, wage rates would not be 5 times higher in the US.

6. Some goods are produced abroad under unsafe working conditions for export to the US. This suggests that US imports of those goods encourages or leads to unsafe working conditions abroad.

False. Unsafe working conditions exist for a number of reasons, including low overall productivity and the inability to "afford" greater safety. In many countries working conditions are considerably worse in sectors that produce goods for local consumption rather than export. Finally, there is good evidence that trade raises overall living standards, which makes it more likely that working conditions will improve.

7. Holding fixed the amount of capital, an increase in labor raises the total and the marginal product of labor.

False. Increasing labor raises the total product, but lowers the marginal product. This is because of diminishing returns to labor -- each unit of labor has less capital to work with and generates less output at the margin.

Short Answer

8. Suppose I can produce a desk for \$400 in the US, but factories produce it for \$100 in Mexico. You are a canny businessperson. How do you take advantage of this price disparity? What happens to trade, output, and prices of desks in each country?

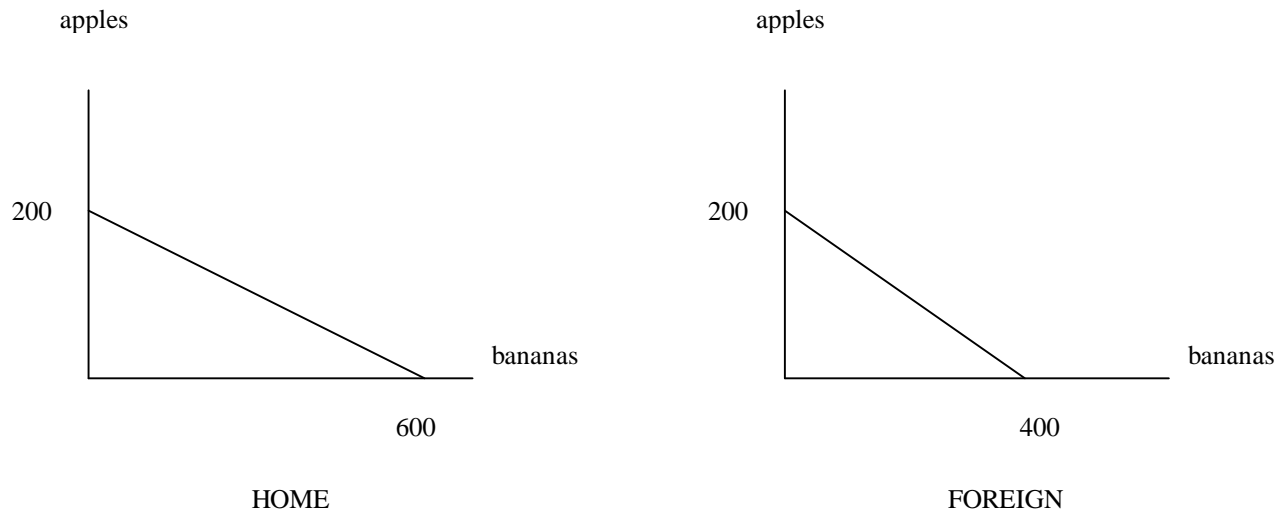
I would buy desks in Mexico and sell them in the US. Eventually this will increase the output of desks in Mexico (someone has to make all the desks I'm buying and exporting to the US) and decrease output in the US (because no one is buying locally produced desks). Prices will fall in the US (I can sell the Mexican desks for as little as \$100), and may rise in Mexico.

9. The following table describes the technology of production of apples and bananas in countries home and foreign.

country	Home	Foreign
Labor endowment	1200	4000
Labor needed to produce 1 unit of:		
Apples	6	20
Bananas	2	10

For each country

- a. Draw the PPF.



- b. What is the opportunity cost of apples in terms of bananas?

Home: Making an additional apple costs me 3 bananas (I could have made 3 bananas with the labor I used to make 1 more apple)

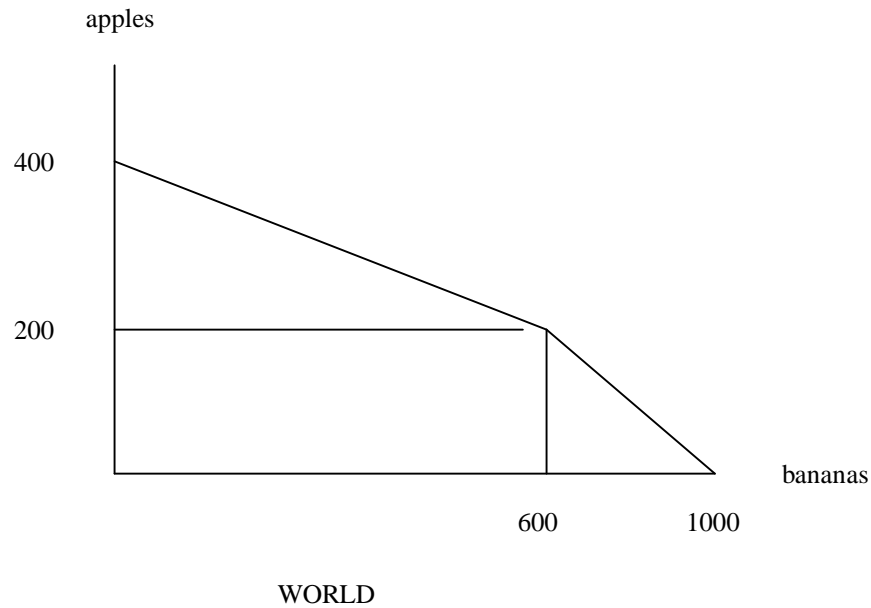
Foreign: making an additional apple costs me 2 bananas.

- c. In the absence of trade, what is the relative price of apples and bananas?

Home: $P_a / P_b = 3$; Foreign: $P_a/P_b = 2$

With trade

d. Draw the world PPF



e. Which country has an absolute advantage in producing apples? Bananas?

Home has an absolute advantage at producing both apples and bananas.

f. Which country should specialize in producing apples? Bananas?

Foreign should produce apples because they can be made at a lower opportunity cost (they give up fewer bananas). Home should make bananas.

g. In which country are wage rates higher? Why?

Wage rates are higher in the home country, because labor is many times more productive.

10. Now let productivity in Foreign increase 5-fold so that 4 units of labor are needed to make one apple and 2 units of labor are needed to make one banana. Repeat a. – f.

The answers to b, c, and f are the same as before – while the absolute productivity levels are different, the relative productivity levels are the same as before.

e. **Foreign now has an absolute advantage in apples; no one has an absolute advantage in bananas.**

f. What happens to wage rates in Foreign?

Wage rates in foreign increase.