

PS 2(a) due Friday July 22 — Solving comparative advantage

Do the following multiple choice question.

Suppose the following numbers describe the economies of the United States and the European Union (EU).

Unit labor requirements		
	US	EU
Wheat	1/12	1/6
Cloth	1/4	1/3
Labor endowments		
	4	5

1. What would be the pre-trade price ratio (P_w/P_c) in US?
 - a. 3/1
 - b. 2/6
 - c. 12/6
 - d. 12/4
2. What would be the pre-trade price ratio (P_w/P_c) in EU?
 - a. 3/6
 - b. 6/3
 - c. 6/5
 - d. 3/5
3. Suppose the price ratio (P_w/P_c) after the two countries open to trade is $2.5/6$ and that the EU's demand for cloth at that price is 6.5, and the EU specializes in cloth. What does the demand in the US for wheat have to be? (Hint: assume the value of EU exports must be equal to the value of EU imports, and likewise for US)
 - a. 20.4
 - b. 25
 - c. 48
 - d. 27.6
4. Now after trade, which correctly characterizes the pre-trade and post-trade real wages?
 - a. in the US a worker now can get 5 cloth instead of 4
 - b. in the US a worker now can get 12 cloth instead of 4
 - c. in the EU a worker now can get 5 cloth instead of 3
 - d. in the EU a worker now can get 7 cloth instead of 1/3

Consider the following numbers that describe the economies of two countries (notice that table is different from the one above):

unit labor requirements		
	rice (R)	sheep (S)
Indonesia	8	16
Australia	4	6
Labor supply	Australia 300	Indonesia 600

5. What would be the pre-trade price ratio (P_r/P_s) in Indonesia?
 - a. 1/2
 - b. 8/4
 - c. 2/1
 - d. 12/4
6. What would be the pre-trade price ratio (P_r/P_s) in Australia?
 - a. 3/6
 - b. 6/4
 - c. 4/6
 - d. 6/16
7. Which country has comparative advantage in rice production?
 - a. Indonesia
 - b. Australia
 - c. neither
 - d. both
8. If worldwide demand for rice is very high, compared with demand for sheep, then it is more likely that the post-trade world price ratio (P_r/P_s) will be:
 - a. 2/3
 - b. 3/2
 - c. 8/16
 - d. 6/4
9. After trade, if the price ratio turns out to be higher than Indonesia's previous pre-trade price ratio and lower than Australia's, then which statement below is false?
 - a. Indonesia will benefit from trade
 - b. Indonesia and Australia will benefit from trade
 - c. Australia will benefit from trade
 - d. Wages for Indonesian workers will fall
10. The evidence on comparative advantage presented

in the textbook is that:

- a. The U.K. exported goods to France in which it had comparative advantage
- b. The U.K. exported goods to the rest of the world relatively more than the U.S., when it was relatively more productive
- c. The U.K. has had an absolute advantage over the U.S. in most goods
- d. The U.K. has been at a comparative disadvantage to the U.S. and so that explains why the U.S. is wealthier

For the next five questions, refer to the following data: Suppose Cuba and Montserrat, two Caribbean island economies, start trading with each other. There are two goods in this economy: sugar cane and mangos. The unit labor requirements of sugar cane for Cuba and Montserrat are, respectively, 6 and 3; the unit labor requirements of mangos for Cuba and Montserrat are, respectively, 8 and 2. The total labor force in Cuba is 1200, and the labor force in Montserrat is 600.

11. The pre-trade prices of sugar compared with mangos (Ps/Pm) will be:
 - a. 6/8 in Cuba and 3/2 in Montserrat
 - b. 8/6 in Cuba and 2/3 in Montserrat
 - c. 3/8 in Cuba and 6/2 in Montserrat
 - d. 6/3 in Cuba and 8/2 in Montserrat
12. If the world price falls between the pre-trade relative prices, then the amount of sugar produced by the two countries will be:
 - a. 300
 - b. 400
 - c. 200
 - d. 1800
13. Cuba has absolute advantage in:
 - a. sugar
 - b. mango
 - c. both
 - d. neither
14. If half of the labor from Montserrat moved to Cuba (one morning they awoke in Cuba and had Cuban productivity, and there was no change in relative demand), then world welfare would unambiguously:
 - a. increase
 - b. decline
 - c. stay the same
 - d. cannot be determined
15. If half of the labor from Montserrat moved to Cuba (one morning they awoke in Cuba and had Cuban productivity), then it would be more likely that the:
 - a. world price of sugar would rise
 - b. world price of sugar would fall
 - c. demand for sugar would shift to the left
 - d. demand for sugar would shift to the right

16. In 1975, wage levels in South Korea were roughly 5% of those in the United States. It is obvious that if the United States had allowed Korean goods to be freely imported into the United States at that time, this would have caused devastation to the standard of living in the United States, because no producer in this country could possibly compete with such low wages. This statement is not really valid because:
 - a. The U.S. probably has a comparative advantage in at least one good despite the lower Korean labor costs
 - b. The U.S. probably has absolute advantage in most goods
 - c. The U.S. is so much bigger than Korea that not everyone in the U.S. could be unemployed
 - d. Korea does not have the shipping capacity to supply the entire U.S. market