Practice Questions on Comparative Advantage
Comparative Advantage
Dr. McGahagan -- Microeconomics

The following information applies to questions 1 - 6.

Good X is X-ray machines, and good Y is yogurt.
In Australia, a worker can produce 10 units of good X a week or 70 gallons of good Y a week.
In Burma, a worker can produce 5 X-ray machines a week or 50 gallons of good Y a week.
Wages in Australia are 500 Australian dollars a week; wages in Burma are 1000 Burmese kyats a week.

__1. How does the above relate to the absolute and comparative advantages of Australia and Burma?
   a. Australia had the absolute advantage in both goods; Burma has the comparative advantage in both goods.
   b. Australia has the absolute advantage in both goods and Australia also has the comparative advantage in both.
   c. Australia has the absolute advantage in both goods, but Burma has the comparative advantage in good X.
   d. Australia has the absolute advantage in both goods, but Burma has the comparative advantage in good Y.
   e. Burma has the absolute advantage in both goods, but Australia has the comparative advantage in good X.
   f. Burma has the absolute advantage in both goods, but Australia has the comparative advantage in good Y.

__2. The activity requirements in Burma will be:
   a. 5 for X-ray machines and 50 for yogurt.
   b. 10 for X-ray machines and 70 for yogurt.
   c. 1/5 for X-ray machines and 1/50 for yogurt.
   d. 1/10 for X-ray machines and 1/70 for yogurt.
   e. 250 for X-ray machines and 1/250 for yogurt.

__3. If the wage in Burma is 1000 kyats a week, the minimum possible price of X-ray machines would be:
   a. 20 kyats
   b. 200 kyats
   c. 5000 kyats
   d. 50,000 kyats
   e. $ 500.

__4. If the price of a gallon of yogurt in Burma is 400 kyats, the maximum possible wage in Burma would be:
   a. 8 kyats
   b. 80 kyats
   c. 100 kyats
   d. $ 400
   e. 20,000 kyats.

__5. In the above example, the opportunity cost of an X-ray machine in Australia is ---- and the opportunity cost of an X-ray machine in Burma is ----.
   a. 7 gallons of yogurt; 10 gallons of yogurt.
   b. 500 Australian dollars, 1000 Burmese kyats.
   c. 50 Australian dollars, 200 Burmese kyats.
   d. 10 gallons of yogurt, 7 gallons of yogurt.
   e. half the cost of a Burmese X-ray machine; twice the cost of an Australian X-ray machine.

Question 6. (Graphical; use a separate sheet of paper). Assume that each country has a work force of 42 million. Sketch the (straight line) production possibility frontiers of each.
7. Andorra can produce a maximum of 2500 wool blankets a month OR a maximum of 5000 leather wineskins a month. The workforce in Andorra is 1000 workers. The wage of an Andorran worker is 2000 euros a month. What is the opportunity cost of producing another wool blanket?
   a. 1/2 of a wineskin.
   b. Two wineskins.
   c. 2.5 times the worker's wage of 2000 euros = 5000 euros.
   d. 2000 / 2.5 = 800 euros.

8. Given the data on Andorra from the last problem, what is the activity requirement for blankets in Andorra?
   a. 5000 euros.
   b. 800 euros.
   c. 2.5 wool blankets per month.
   d. 1 / 2.5 = 0.4 months of work per blanket.

9. The price of blankets in Andorra (assuming that labor costs are the only costs of production) will be: --- (fill in the blank with the appropriate number; use the proper units for the price).

10. The relative price of blankets in Andorra will be:---. Again fill in the blank with the appropriate number, and use the proper units for the relative price).

11. Suppose Andorra enters into trade with Spain, which can produce a maximum of 25,000 wool blankets a month OR a maximum of 100,000 wineskins per month with its workforce of 20,000 workers. We can conclude from these numbers that:
   a. Spain can outproduce Andorra in both goods, so has the absolute advantage in both goods.
   b. Spain can outproduce Andorra in both goods, so has the comparative advantage in both goods.
   c. Spain has both the absolute and the comparative advantage in both goods.
   d. The standard of living will be higher in Spain than in Andorra.
   e. Spain has a absolute advantage in neither good.

12. In the Andorra-Spain example of the last question, the pattern of trade expected on the basis of the Ricardian model would be:
   a. Spain will export both goods to Andorra, and Andorra will be unable to export either to Spain.
   b. Andorra will export both goods to Spain, though Spain can export wineskins to Andorra.
   c. Spain will export blankets to Andorra; Andorra will export wineskins to Spain.
   d. Andorra will export blankets to Spain, and Spain will export wineskins to Andorra.
   e. The two countries will not trade with one another since Andorra has a comparative disadvantage in both goods.

13. Explain your answer to questions 11 and 12, using the terms "comparative advantage", "absolute advantage" and "opportunity cost" below:
14. Recall that the maximum production in Andorra was either 2500 blankets or 5000 wineskins. Let blankets be good X and wineskins be good Y. The equation of the production possibility frontier (supposing it is a straight line) will be:
   a. \( Y = 5000 - 2500 X \)
   b. \( Y = 2500 - 5000 X \)
   c. \( Y = 5000 - 2 X \)
   d. \( Y = 5000 - 0.5 X \)
   e. \( Y = 2500 - 0.25 X \)

Given the equation for the Andorran production possibility frontier, are the following production bundles:
   A. Efficient.
   B. Inefficient
   C. Impossible to attain

Again, assume a straight line PPF. Show your calculations.

15. 1250 blankets and 2500 wineskins.

16. 1000 blankets and 3000 wineskins.

17. 500 blankets and 2000 wineskins.

18. 1500 blankets and 1500 wineskins.

How would the Andorran PPF change in response to the following changes? Your options are:
   A. The PPF would not change at all, but Andorra would move to a different point on the PPF
   B. The PPF would shift outwards parallel to itself.
   C. The PPF would shift inwards parallel to itself.
   D. the PPF would rotate, and the slope of the PPF would be steeper (recall that wineskins = Y).
   E. the PPF would rotate, and the slope of the PPF would be flatter (recall that wineskins = Y).


20. Andorran sheep die off due to a sheep-specific disease; Andorran cattle are unaffected.

21. A leather-sewing machine is invented that makes it possible to manufacture wineskins more rapidly.

22. Power looms make it possible to manufacture blankets more rapidly.

23. Andorran consumers decide that they want fewer wool blankets due to global warming.

24. Andorran enters into trade and exports one of the goods to Spain.

25. In which of the above cases would the relative price of wineskins increase?
   A. Question 19.
   B. Question 21.
   C. Question 22.
   D. Question 23.