

ECON 462 International Trade

KEY

30 points  
MAX

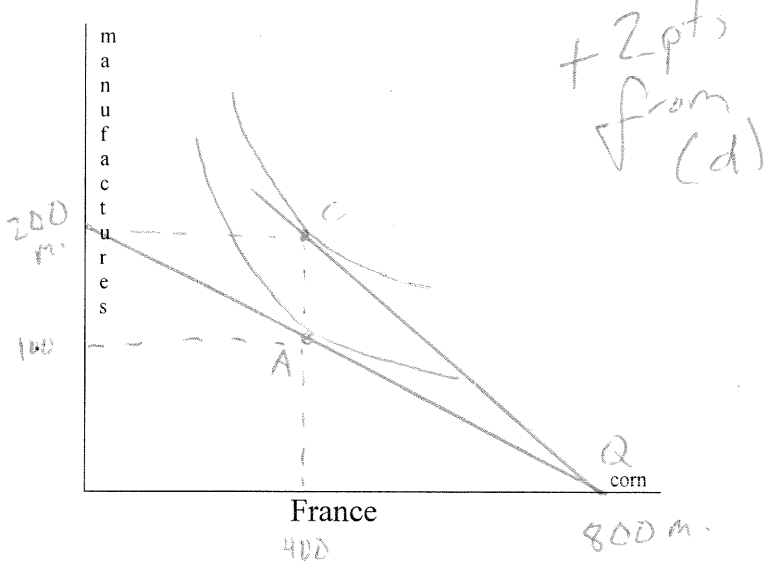
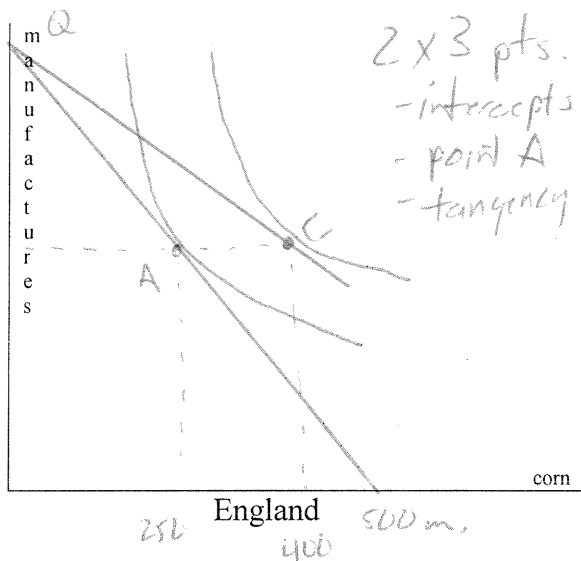
Quiz 1  
Fall 2009

Time: 30 minutes. You may use a calculator if you need.

Assume that England in the early 1800s had 10 million identical workers, and France had 20 million identical workers. Each worker in England could produce a constant 40 units of manufactures or 50 units of corn per year, while each worker in France could produce 10 units of manufactures or 40 units of corn per year. Due to the Napoleonic wars, these countries did not trade.

- a) Putting corn on the horizontal axis, draw and label the PPFs for both England and France. Using indifference curves, show the autarky consumption points, assuming that each country devotes half of its labor force to each good.

5 pts.



- b) Circle the correct answers:

6 pts

- i. Which country has the lower relative price for corn ( $P_c/P_m$ )?      England / France
- ii. Which has the absolute advantage in corn?      England / France
- iii. Which has the absolute advantage in manufactures?      England / France
- iv. Which has the comparative advantage in corn?      England / France
- v. Which has the comparative advantage in manufactures?      England / France
- vi. Which country has the higher real wage rate?      England / France

- c) Suppose that England eliminates its corn laws that prohibit imports, and France reciprocates. If each country fully specializes according to the predictions of the Ricardian theorem, demonstrate that more corn and manufactures would be produced overall.

4 pts.

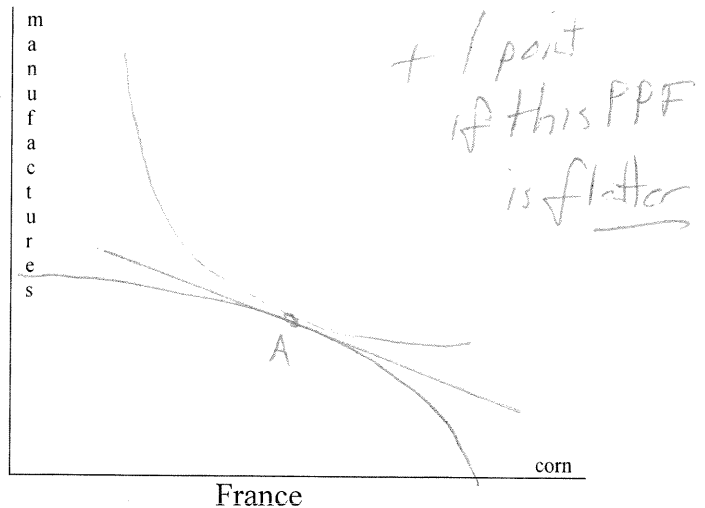
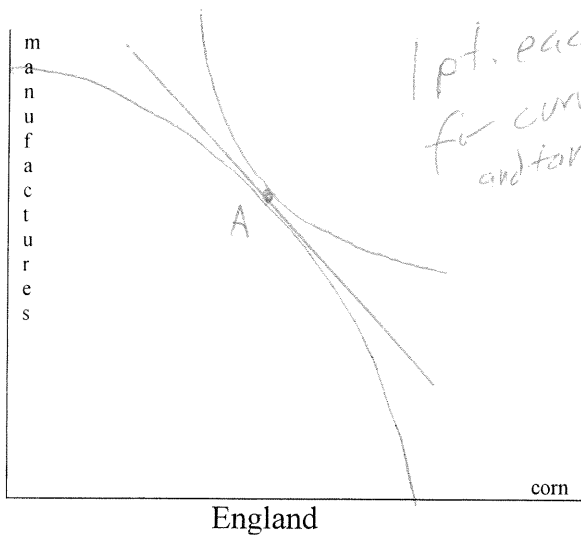
Autarky:      Total corn = 650 million      Total manufactures = 300 million  
 Trade:      Total corn = 800 million      Total manufactures = 400 million

2 pts. - see point

d) Assuming that the countries trade 400 units of corn for 200 units of manufactures, show on the graphs in (a) that each is able to increase its utility from consumption.

Assume instead that production requires specific factor. Corn production requires fertile farmland, while manufacturing requires physical capital such as factories and machinery. Labor is identical, and can be used in either production process, but the marginal product is no longer constant. Both countries have similar amounts of fertile farmland, but France has twice as much labor as England, while England has three times as much physical capital as France.

e) Draw the PPFs in this case, and show the autarky equilibria if preferences are identical across countries. Actual numbers are not required.



f) Circle the correct answers:

- 5 pts.
- Which country has the comparative advantage in corn?
  - Which has the comparative advantage in manufactures?
  - Which is more likely to have more diminishing returns?
  - Which country has the lower relative price for corn ( $P_C/P_M$ )?
  - Which country has the higher real wage rate?

England / France

England / France

England / France

England / France

England / France

g) In this specific-factors model, free trade will result in (circle):

- 4 pts.
- Higher real incomes for landowners in:
  - Higher real incomes for capitalists in:
  - Lower real incomes for landowners in:
  - Lower real incomes for capitalists in:

England / France

England / France

England / France

England / France