

H-O Problems

(I)

Consider two countries (England and India) that can produce two goods (cloth and trains) using two factors (labor and capital). The technology to produce each good is the same in either country and allows for substitution among inputs. Cloth production is labor intensive while train production is capital intensive. England is relatively capital abundant, and India is relatively labor abundant. **Use diagrams and equations/ explanations to justify your answer.**

- (a) What is the relationship between autarky relative prices in the two countries (p_c/p_T)?
- (b) What is the pattern of trade that results from free trade between these two countries?
- (c) Show how wages and the rental price of capital change in England when the country goes from autarky to free trade with India. Will English capitalists (i.e. the owners of capital) be in favor of free trade with India?
- (d) Show how wages and the rental price of capital change in India when the country goes from autarky to free trade with England. Will Indian capitalists (i.e. the owners of capital) be in favor of free trade with England?
- (e) What will happen to the capital labor ratio (K/L) in the cloth and train sectors England after opening to trade?
- (f) What will happen to the capital labor ratio (K/L) in the cloth and train sectors in India after opening to trade?
- (g) Suppose the two countries were trading freely for several years, do you expect to observe the same wages in England and India?

(II)

Consider the two country model in example in (I) . Suppose India and England are trading freely but because of a natural disaster England's endowments of L and K are reduced in half. What are the effects of this change on :

- (a) the pattern of trade
- (b) the free trade commodity prices
- (c) India's welfare level (use your answer to (b) and a diagram)

Use diagrams and equations/ explanations to justify your answer.