

Second Exam

Write all answers in your blue book and show all work there.
Return your exam in your blue book.

18 pts.

1. You consume only two goods, X and Y.
 - a) On Monday the price of Y increases and income increases just enough so that your utility is the same as before (Sunday). Draw a well-labeled diagram that depicts what happened.
 - b) Can you afford Sunday's mix of X and Y on Monday? Why?
 - c) On Tuesday, your income decreases back to Sunday's level and you consume more Y than on Monday but less than on Sunday. Add this point to your diagram.
 - d) On which day can a substitution effect be observed? Why?
 - e) Is Y a normal or inferior good as depicted above. Why?

10 pts.

2. Two years ago country A entered a war and has suffered many more dead and wounded than anticipated. All costs have been larger than anticipated and benefits have been lower than anticipated. Is it possible that the war may have been a mistake to begin with, but that it still would not be wise to leave now? Address the issue in terms of sunk cost, variable cost and benefit.

18 pts.

- 3) In an underdeveloped country peasants carry baskets from the market to home, a maximum of 3 at a time; one in each hand and one on the back. Each basket holds 3 lbs. of fruit and it takes all day to go to the market and back.
 - a) Draw a well-labeled isoquant map for the two resources, workers and baskets and trace a scale expansion path if it.
 - b) If your family has 9 baskets and 6 workers and $P_{\text{basket}} = 1$ and $P_{\text{worker}} = 2$, draw a well-labeled diagram showing the values (for a day) of the MP_{worker} , MC, TP_{worker} , SRTC and LRTC.

18 pts.

4) Use a well-labeled two-frame diagram to show the effect of an excise tax in a constant cost competitive industry. Be sure to show when economic profit is zero. Discuss the burden of the tax in the short run and the long run.

18 pts.

5 Use a well-labeled diagram to show the effect of a tariff in an industry that has both domestic and foreign supply. Be sure to identify areas of DWL and tax revenue.

18 pts.

6. a) If $Q=LK^2$ use partial derivatives to find an equation for the MRTS.

b) If $Q=LK^2$ calculate a crude measure the MRTS when L increases from 7 to 8 and K starts at 10.

c) Use your part a result to get a value for the MRTS when $L = 7$ and $K = 10$. Why doesn't this result agree with part b exactly?

I have neither given nor received unfair aid on this test nor am I aware of anyone else who has.
