Answer Key

EC 248 – Fall 2013

Assignment #1

Due: October 7 (Monday) 4pm.
Location: Dropbox across Economics Department Main Office (P3082)

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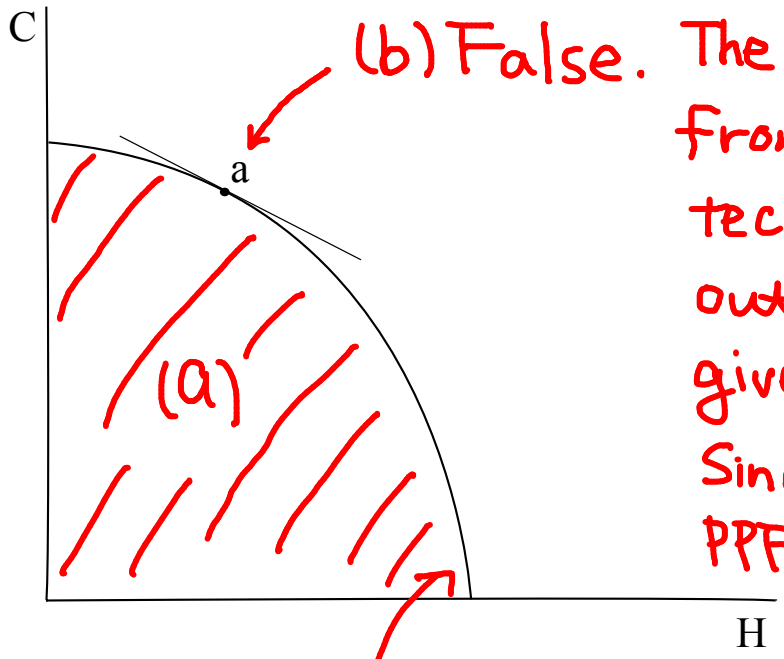
1. Consider Figure 1, which describes John's production possibility frontier of consumption, C, and health capital, H.

   (a) Shade an area that represents all the feasible combinations of C and H.

   (b) At point a, John is wasting some resources. True or False? Explain your answer.

   (c) At point a, the slope of the production possibility frontier is -0.8. What does it mean?



(b) False. The production possibility frontier shows the technically efficient output combinations given limited resources. Since point a is on the PPF, John is not wasting any resources

(a)

includes the boundary

Figure 1: Production Possibility Frontier

(c) It means that, at point a, John must give up 0.8 units of C in order to get one more unit of H.

2. We are concerned with Canada's health care. To start with, we would like to get some basic facts about the most recent situation. Note that you need to clearly state the source information, and year of the data you refer to.

   (a) Find the share of health care expenditures to GDP in Canada.

   (b) Find the public share of the health care expenditures in Canada.

   (c) Consider the distribution of health care spending in Canada. What percentage of the health expenditure goes to hospitals? Physicians? Drugs?

3. This question is from Chapter 2 (page 47-48). Based on the (hypothetical) information in the chart below, relating to rates of surgery in Canada:

   (a) Is there horizontal equity in the utilization of health care in Canada between Toronto and Vancouver? Explain your answer.

   (b) Is there vertical equity in the utilization of health care in Canada between Toronto and Vancouver? Explain your answer.

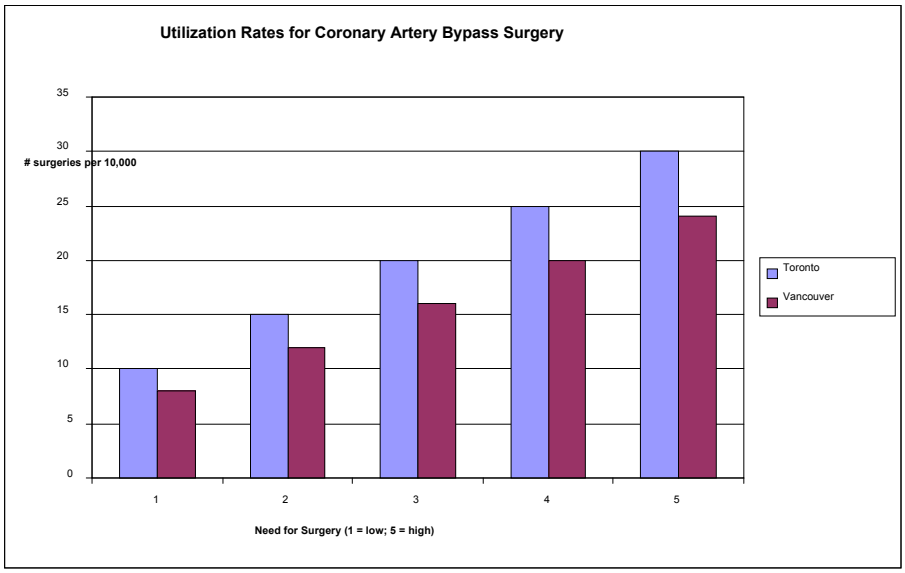


Figure 2: taken from Chapter 2

2) For example, Canadian Institute for Health Information (CIHI) collects many health and health related information in Canada. See National Health Expenditure Highlights 2012 by CIHI posted in MyLearningSpace.

(a) The share of health care expenditure to GDP in Canada is 11.6% in 2012 (projected), and 11.7% in 2011.

(b) The public share of the health care expenditures in Canada is 70.5% in 2010.

(c) Hospital spending accounts for 29.1%, spending on physicians accounts for 14.2%, and spending on drugs accounts for 15.9%.

3) (a) False. If horizontal equity is applied, everyone with the same needs should receive the care. However, in this graph, people in Toronto receive the surgery than people in Vancouver at each need caterogy.

(b) True. Under vertical equity, those with different needs should treated differently. In this graph, the more surgeries are given to those with higher needs in both Toronto and Vancouver.

4. Suppose that there are only two individuals, Alpha and Beta. Each consumes apples and bananas. Figure 2 shows the corresponding Edgeworth box, where apples are on the horizontal axis and bananas are on the vertical axis. Furthermore, Alpha has 10 apples and 15 bananas, and Beta has 5 apples and 3 bananas, indicated at point E. Both like apples and bananas. Answer each of the following questions.

   (a) Suppose that Alpha has a constant marginal rate of substitution between apples and bananas of 2. Draw Alpha's indifference curve, going through point E. Use BLUE line.

   (b) Suppose that Beta has also a constant marginal rate of substitution between apples and bananas of 1/2. Draw Beta's indifference curve, going through point E. Use RED line.

   (c) Based on (a) and (b), what do you conclude about the allocation at point E?

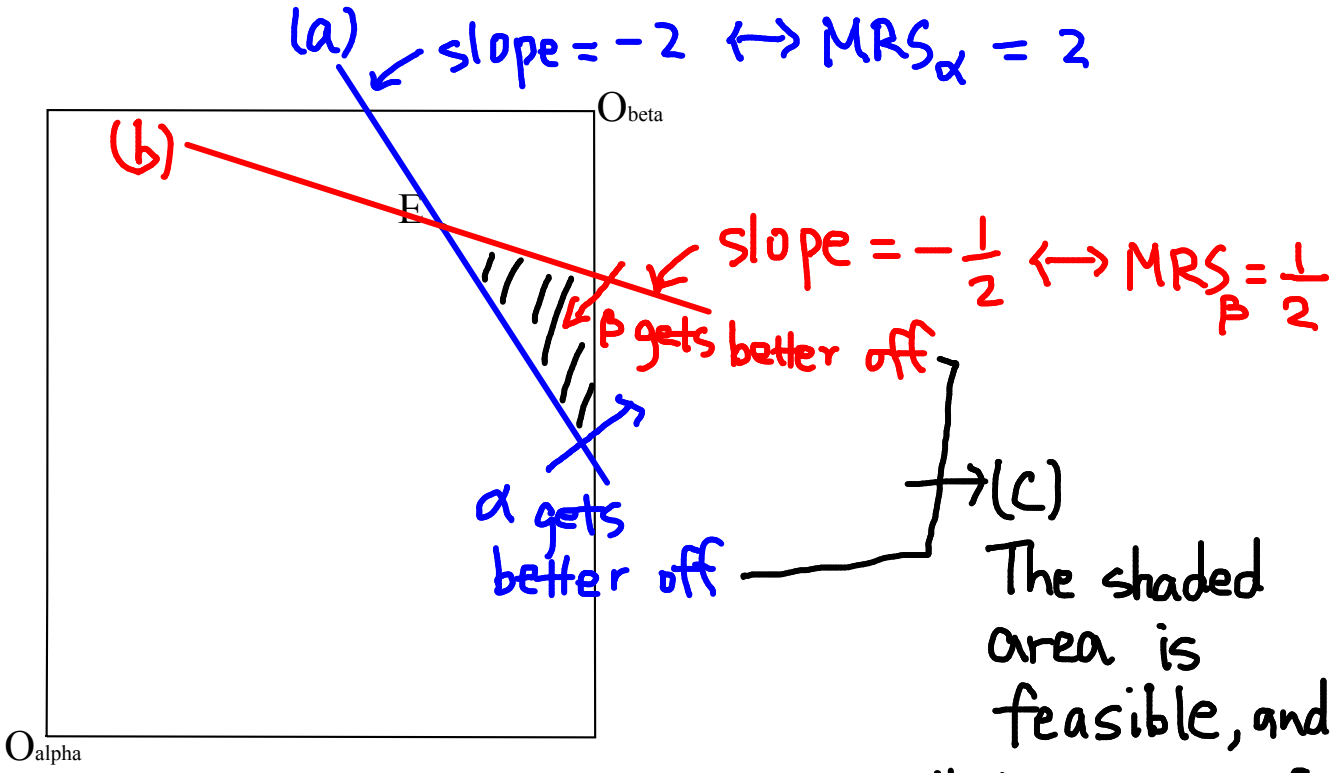


Figure 3: Edgeworth Box