Economics 100

Spring 2015

Homework #1

Due Thursday, February 5, 2015

**Directions:** The homework will be collected in a box **before** the lecture. Please place your name on top of the homework (legibly). Make sure you write your name as it appears on your ID so that you can receive the correct grade. Late homework will not be accepted so make plans ahead of time. **Please show your work.** Good luck!

**Please realize that you are essentially creating “your brand” when you submit this homework. Do you want your homework to convey that you are competent, careful, and professional? Or, do you want to convey the image that you are careless, sloppy, and less than professional. For the rest of your life you will be creating your brand: please think about what you are saying about yourself when you do any work for someone else!**

1. On the first day of class we were confronted with the issue of how to allocate a limited number of brownies. Recap that experience and in your description describe at least three different ways we could have allocated the scarce brownies among the members of our class. Then, provide a paragraph describing the impact of this experience on you: did you experience or learn something you had not thought about before, did the experience alter your thoughts on the complexity of allocating goods when there is scarcity? This paragraph should be well expressed and thoughtful.

2. Economists believe that “the cost of getting something is what you give up to get it”. Write a paragraph focusing on this general principle and how it applies to your decision to get an education. Are you aware of this principle or is this a new principle to apply to your decision to get an education? Be thoughtful in your discussion of this idea-no credit for a paragraph that is not analytical and well expressed.

3. For each of the following statements determine whether the statement is a positive or a normative statement. Explain your answer.

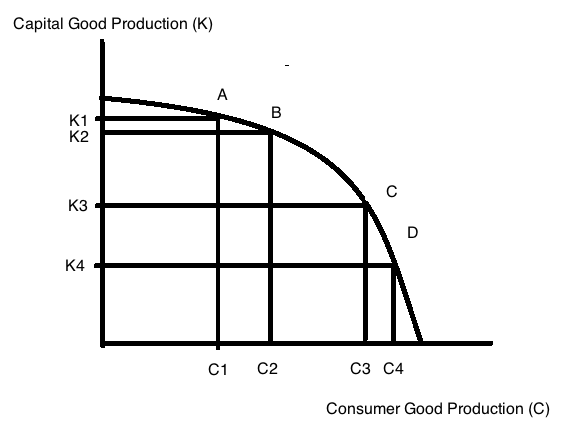
a. Joe is working hard and by the end of the year his savings from his work should be sufficient to pay for a year of college tuition.

b. Susie is working hard and she ought to get more sleep than she is getting in order to function better in her day-to-day activities.

c. Mark is working hard and he ought to get straight A’s given his work effort.

d. Paul is working hard and this work effort seems to be paying off: he has been on the Dean’s List the last four semesters.

4. Suppose you are given the following production possibility frontier (PPF) for the economy of Grantsville. Grantsville produces consumer goods (C) and capital goods (K) from its available resources.



a. Given the above graph, what is the opportunity cost of moving from Point A to Point B? Make sure you identify the type of units that opportunity cost is measured in when you provide your answer.

b. Given the above graph, what is the opportunity cost of moving from Point C to Point A? Make sure you identify the type of units that opportunity cost is measured in when you provide your answer.

c. Given the above graph, does the Law of Increasing Opportunity Cost hold for capital goods? The Law of Increasing Opportunity Cost states that the opportunity cost of getting each additional unit of the good increases as you get more and more of that good. Explain your answer and provide a graph to illustrate this idea.

5. Janine is taking Econ 100 and Psych 202 this semester and has figured out that she has ten hours available each week to devote to the study of economics or psychology. The table below provides information about the amount of study time she allots to each subject and the anticipated final grade she will get in each subject given this allocation of study time.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Possible Study Combination | Number of Hours of Study for Economics | Number of Hours of Study for Psychology | Anticipated Final Grade in Economics | Anticipated Final Grade in Psychology |
| A | 10 | 0 | 98 | 50 |
| B | 8 | 2 | 90 | 60 |
| C | 6 | 4 | 78 | 75 |
| D | 2 | 8 | 65 | 85 |
| E | 0 | 10 | 50 | 90 |

a. In a graph plot out Janine’s production possibility frontier given the above information. Measure her Economics grade on the vertical axis and her Psychology grade on the horizontal axis. Instead of using (0, 0) as the origin, use (50, 50) as the point of intersection for the two axes: do this since even if she studies zero hours for Economics or Psychology she will get a grade of 50 in the classes: not a bad assumption for many classes where the professor expects a student to be able to get approximately 50% of the material by just coming to class and hearing the lectures. Mark combinations A, B, C, D, and E on your graph and then connect these five combinations to make a PPF for Janine’s production of these two goods (the grades in Economics and the Psychology). To make this a more interesting assignment: figure out how to draw the graph using some kind of computer program: for example, Excel (here you will need to enter the data and then convert to a graph), Paint, or Paintbrush (I tend to use Paint or Paintbrush if I am making “sketches” and Excel if I want a “too-scale” drawing). (By doing this with a computer program you will build your skill sets and can add “comfortable with graphic design programs to your resume.)

b. What is Janine’s opportunity cost of changing her study habits from 8 hours of Economics study a week to 2 hours of Economics study a week? Be sure to include some kind of unit of measurement for the answer you provide.

c. Given the above information, is there an optimal allocation of study time to these two subject areas? Explain your answer.

6. Consider two countries: Country X and Country Y. Both countries produce autos and shoes and the following table provides you with information about the maximum amount of autos and shoes that each country can produce if they only produce one of these goods. Both countries have linear production possibility frontiers in these two goods.

|  |  |  |
| --- | --- | --- |
|  | Maximum Amount of Autos that can be Produced in the given time period | Maximum Amount of Pairs of Shoes that can be Produced in the given time period |
| Country X | 20,000 | 50,000 |
| Country Y | 10,000 | 20,000 |

a. Given the above table, which country has the absolute advantage in the production of autos?

b. Given the above table, which country has the absolute advantage in the production of shoes?

c. Draw two graphs: in the first graph represent Country X’s PPF measuring autos on the vertical axis and pairs of shoes on the horizontal axis; in the second graph represent Country Y’s PPF measuring autos on the vertical axis and pairs of shoes on the horizontal axis. Again, you might do this on a computer graphic program (see the last question for names of some of the readily available programs).

d. What is the opportunity cost of the following (in your answer provide units of measurement):

i. One pair of shoes for Country X?

ii. One pair of shoes for Country Y?

iii. One auto for Country X?

iv. One auto for Country Y?

e. Which country has the comparative advantage in the production of autos? Explain your answer. Which country has the comparative advantage in the production of shoes? Explain your answer.

f. Draw the joint PPF for these two countries in a single graph, measuring autos on the vertical axis and pairs of shoes on the horizontal axis. Label clearly the coordinates for any “kink points”.

g. What is the acceptable range of trading prices for 10,000 pairs of shoes? Provide a number line like the one presented in class to illustrate your answer. Include the directional arrows and the Country Perspective in your number line illustration.

h. What is the acceptable range of trading prices for 5,000 autos? Provide a number line like the one presented in class to illustrate your answer. Include the directional arrows and the Country Perspective in your number line illustration.

7. Wheelan writes that “the more generous a health care system is in the benefits it guarantees, the more it is going to cost” (page xxi). This is a positive statement that is supported by the data. It is early in your study of economics, but suppose you were the political leader in your society and had the difficulty of designing and implementing a health care system. How would you determine which procedures would be covered by the health care system and which procedures would not be covered by the health care system? Write a thoughtful answer here: no credit for this one for a glib answer (if you are not sure what “glib” is, look it up!).

8. On page 6, Wheelan writes “Economics starts with one very important assumption: Individuals act to make themselves as well off as possible.” Do you agree or disagree with this statement? Provide a short, concise but thoughtful answer to this question.

9. Wheelan in Chapter One of his book writes about a wide range of topics. Select a single topic or example that you found intriguing: write a brief paragraph identifying the example (you can quote directly from the text, but provide the specific page number and make sure you attribute the statement to Wheelan), and then discuss what you found interesting or unexpected about this example. Again, let me remind you that it is relatively easy for the reader to know when you have written in a hurried, thoughtless manner: so practice those writing skills as well as your critical thinking!

10. One last task for this homework: an important skill set worth developing is the ability to take reading notes on what you are reading. In contrast to highlighting text, taking reading notes encourages you to synthesize and compress the ideas you are reading into a short, but pithy version. Furthermore, deconstructing the underlying organization of the text may also prove insightful. So, in light of this: take the time to outline the key points and organizational structure of Chapter 2 of Wheelan. (Note: in the answer key I will be providing two outlines: a long version and a much shorter version. What was interesting to me is that I was not able to write the short version until I had done the long version (despite having read this chapter multiple times). I also included a short paragraph about my perception of Wheelan’s organizational structure within the paragraph.