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Economics 202-02
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Homework #1 (due by 9:00pm on Thursday, September 7)

Please submit your answers to this homework through the Assignment link at Blackboard. **No credit will be given for answers submitted in class or emailed to the professor**, *regardless of the excuse.* This includes unique excuses like my dog ate my homework or aliens showed up in my dorm and accidently deleted my homework, as well as more traditional excuses like "I lost my Internet". Please note that all submissions are final, again – regardless of the excuse (which includes "I accidentally hit the submit button"). When you go to Blackboard, you should see that you can save your answers, or "Save and Submit". Use the Save and Submit button to submit your answers. If you are unfamiliar with Blackboard, then it would be a good idea to visit the class page at Blackboard and check out the homework assignments as they are posted.

Please note that when Blackboard grades homework answers, more specifically when Blackboard grades answers to any fill-in-the-blank questions – your answer must match exactly with the answer that Blackboard is looking for. Below, you'll find some instructions on how to properly format these answers. Reading this section is strongly recommended.

Homework Questions 1 and 6
Your answers to question #1 and #6 involve your determining the opportunity cost of producing a certain good. Formatting matters with these two answers. For this reason, **understand that your answer can be technically correct but graded as wrong because you didn't follow the directions provided below.** Given that formatting is considered part of your answer, a wrongly formatted answer is still a wrong answer. Note, however, that there will be at least a little flexibility in formatting (as noted in ii below), but it is your responsibility to find out how much flexibility you've got.

Please note the following comments regarding formatting below.

(i) Your answer in questions 1 and 6 may be expressed as a fraction (reduced to its simplest form) or as a decimal rounded to the nearest tenth. Do not write your answer as a compound fraction or mixed number. E.g., if your answer is 6/4, then you should record your answer as 3/2 or 1.5, but do not write your answer as 6/4 or 1 1/2.

(ii) Whole number answers in questions 1 and 6 may be expressed as a whole number or as a decimal rounded to the nearest tenth. E.g., if your answer is 5, then you may record your answer as 5 or 5.0.

Homework #1 Questions

1. Assume that Costa Rica and Mexico both produce coffee and crude oil, as per the PPC provided below.

Costa Rica	A	B	C	D
Quantity of Coffee	0	20	50	60
Quantity of Electronic goods	30	20	5	0

Mexico	W	X	Y	Z
Quantity of Coffee	0	20	40	80
Quantity of Electronic goods	16	12	8	0

a. As Costa Rica moves from pt. B to pt. C, the opportunity cost of producing each additional unit of coffee is _____ units of electronic goods.

b. As Costa Rica moves from pt. C to pt. B, the opportunity cost of producing each additional unit of electronic goods is _____ units of coffee.

c. As Mexico moves from pt. X to pt. Y, the opportunity cost of producing each additional unit of coffee is _____ units of electronic goods.

d. As Mexico moves from pt. Y to pt. X, the opportunity cost of producing each additional unit of electronic goods is _____ units of coffee.

2. Given the tables associated with Question 1 about these two countries, select every correct statement (note: there may be a multiple number of correct statements below).

Note that there is no partial credit on this question – you must get it completely correct, or your answer is incorrect.

(a) Costa Rica has a comparative advantage in producing coffee
(b) Costa Rica has a comparative advantage in producing electronic goods
(c) Mexico has a comparative advantage in producing coffee
(d) Mexico has a comparative advantage in producing electronic goods
(e) Both Mexico and Costa Rica have a comparative advantage in producing coffee
(f) Both Mexico and Costa Rica have a comparative advantage in producing electronic goods
(g) Neither country has a comparative advantage in producing coffee
(h) Neither country has a comparative advantage in producing electronic goods

3. Assume that Country X and Country Y both produce apples and bananas, as per the PPC provided below.

Country X	A	B	C	D
Quantity of Apples	0	20	30	40
Quantity of Bananas	8	4	2	0

Country Y	W	X	Y	Z
Quantity of Apples	0	24	60	72
Quantity of Bananas	24	16	4	0

Given the tables associated with Question 3 above, select every correct statement about the comparative advantage within Countries X and Y.

(a) Country X has a comparative advantage in producing apples and Country Y has a comparative advantage in producing bananas
(b) Country X has a comparative advantage in producing bananas and Country Y has a comparative advantage in producing apples
(c) Country X has a comparative advantage in producing apples, but neither country has a comparative advantage in producing bananas
(d) Country X has a comparative advantage in producing bananas, but neither country has a comparative advantage in producing apples
(e) Country X has a comparative advantage in producing both bananas and apples
(f) Country Y has a comparative advantage in producing both bananas and apples
(g) Neither country has a comparative advantage in producing bananas and apples

Use the PPC tables for Country X and Country Y above to answer the question below.
4. Assume that there is an increase in productivity within Country X that affects banana production. Which of the answers below is a correct statement (note: there may be a multiple number of correct statements below). *Note that there is no partial credit on this question – you must get it completely correct, or your answer is incorrect.*

(a) the opportunity cost of producing apples in Country X will increase
(b) the opportunity cost of producing bananas in Country X will decrease
(c) if the increase in banana productivity is large enough, Country X could end up with a comparative advantage in producing both apples and bananas
(d) if the increase in banana productivity is large enough, Country X could end up with a comparative advantage in producing bananas, but lose their comparative advantage in producing apples
(e) this change in banana productivity will not affect Country X's comparative advantage

5. The PPC model helps us better understand the concept of economic growth within an economy. To answer this question, you'll need to read a Federal Reserve Bank of Dallas article entitled "US Economy: Productivity Growth" by Evan Koenig. The article is provided in the "**Homework #1 material**" folder within "Course Documents" at Blackboard. *Note that there is no partial credit on this question – you must get it completely correct, or your answer is wrong.*

According to this article, what are the three main (underlying) causes of labor productivity growth which are cited in the article:

(a) increases in the amount of capital per worker
(b) increases in the quantity of available public transportation
(c) improvements in technology and the organization of production processes
(d) increases in income
(e) improvements in the quality of the workforce
(f) migration

6. In one period, Country A can either produce 50 units of (automobile) tires, or 100 units of rubber mats. In the same time period, Country B can either produce 100 units of (automobile) tires or 150 units of rubber mats. Given this information, answer both of the following questions below.

(a) The opportunity cost of producing each additional unit of tire in Country A is _____ units of rubber mats.

(b) The opportunity cost of producing each additional unit of rubber mat in Country A is _____ units of tire.

(c) The opportunity cost of producing each additional unit of tire in Country B is _____ units of rubber mats.

(d) The opportunity cost of producing each additional unit of rubber mat in Country B is _____ units of tire

7. Assume that Country Z has a production possibilities curve (PPC) for wheat and rye. That PPC has wheat on the vertical axis and rye on the horizontal axis (note that the location of these two goods on the graph is something to note. Assume further that a series of events takes place.

Predict the effect of each event on the PPC of Country Z by matching the event from the first list to the most likely item on the "Effect on Country Z's PPC" list below. Note that it is possible to for different events to have the same effect (i.e. it's possible to have the same answer for more than one event).

Event:

1. How does an increase in unemployment affect the PPC of Country Z?

2. How does a decrease in the amount of available land within Country Z affect their PPC?

3. How does migration of laborers from Country W into Country Z affect the PPC of Country Z?

4. How does increased demand for wheat within Country Z (during a period of full employment) affect the PPC of Country Z?

5. How does automation (technological change) within wheat affect the PPC of Country Z?

6. How does a decrease in the availability of inputs for both wheat and rye affect the PPC of Country Z?

7. How does an increase in demand for rye, a change that occurs during a period when Country Z is producing at points considered efficient, affect the PPC of Country Z?

8. How does an increase in the capital stock within Country Z affect the PPC of Country Z?

9. How does a decrease in the productivity associated with producing rye affect the PPC of Country Z?

Effect on Country Z's PPC:

A. Movement from a point inside this PPC to a point that's on the PPC

B. Movement from a point that's on this PPC to a point inside the PPC

C. Movement between 2 points, up along the PPC (i.e. toward wheat)

D. Movement between 2 points, down along the PPC (i.e. toward rye).

E. Increase (shift outward) in the PPC that affects both goods

F. Decrease (shift inward) in the PPC that affects both goods

G. Increase (pivot outward) in the PPC that affects only wheat

H. Increase (pivot outward) in the PPC that affects only rye

I. Decrease (pivot inward) in the PPC that affects only wheat

J. Decrease (pivot inward) in the PPC that affects only rye