

Principles of Microeconomics

Questions for Tutorial Week 3

1. Nadine is considering the “dress well, test well” theory, which argues that one performs better on exams when one dresses nicer than one does when wearing tracksuit pants. If Nadine wants to test this theory over the course of the semester, what is the endogenous factor in her experiment? What are some exogenous factors?

2. Are the following statements normative or positive? Explain your answer in 1-2 sentences.

A. Mars is closer to the sun than earth.

B. Everyone should study Microeconomics.

C. I think everyone needs to work at a bank to see the true value of money.

D. Economics majors earn more on average than politics majors.

3. Suppose that Bianca and Rosa each own a small farm. They both produce apples and milk. Each hour, Bianca can either produce 1 kilo of apples or 1 litre of milk, and Rosa can either produce 4 kilos of apples or 2 litres of milk. Each works 4 hours a day.

A) Fill out the production possibilities frontier (PPF) for Bianca and Rosa.

	Apples	Milk
Bianca	4	4
Rosa	16	8

B) Draw Bianca’s daily PPF, placing kilos of apples on the y-axis and litres of milk on the x-axis. Label both intercepts, the axes and the slope of the PPF.

C) Draw Rosa’s daily PPF, placing kilos of apples on the y-axis and litres of milk on the x-axis. Label both intercepts, the axes and the slope of the PPF.

D) What is the opportunity cost to each of 1 kilo of apples?

E) What is the opportunity cost to each of 1 litre of milk?

F) Who has the comparative advantage in producing apples? Briefly explain.

G) Who has the comparative advantage in producing milk? Briefly explain.

H) Who has the absolute advantage in producing apples? Briefly explain.

I) Who has the absolute advantage in producing milk? Briefly explain.

J) Are there gains from specialisation and trade in this case? If not, explain why not. If so, in which good should each specialise?

K) Suppose that every day, Bianca and Rosa each spend 2 hours producing apples and 2 hours producing milk, so that together they produce 10 kilos of apples and 6 litres of milk. To show that this is not an efficient use of their time, find another way to divide up their time between producing apples and producing milk, so that together they still can produce 6 litres of milk but more than 10 kilos of apples.

4. Suppose that two siblings, Fiona and Henry, are required to help their parents around the house. In particular, each week they are required to spend an hour cleaning rooms and an hour doing laundry. Suppose it takes Fiona 10 minutes to clean a room and 15 minutes to do a basket of laundry, while it takes Henry 5 minutes to clean a room and 10 minutes to do a basket of laundry.

A) Fill out the production possibilities frontier (PPF) for Fiona and Henry.

	Cleaning	Laundry
Fiona	6	4
Henry	12	6

B) Draw Fiona's weekly PPF, placing baskets of laundry on the x-axis and cleaning on the y-axis. Label the intercepts, the axes and the slope of the PPF.

C) Draw Henry's weekly PPF, placing baskets of laundry on the x-axis and cleaning on the y-axis. Label the intercepts, the axes and the slope of the PPF.

D) What is the opportunity cost to each of doing laundry?

E) What is the opportunity cost to each of cleaning?

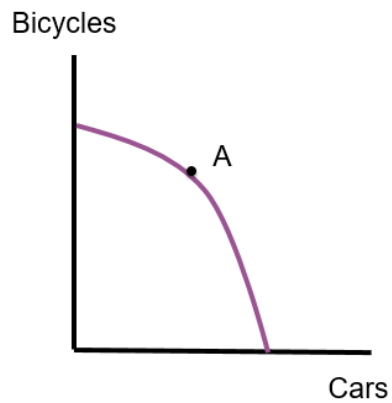
F) Who has the comparative advantage in doing laundry? Why?

G) Who has the comparative advantage in cleaning? Why?

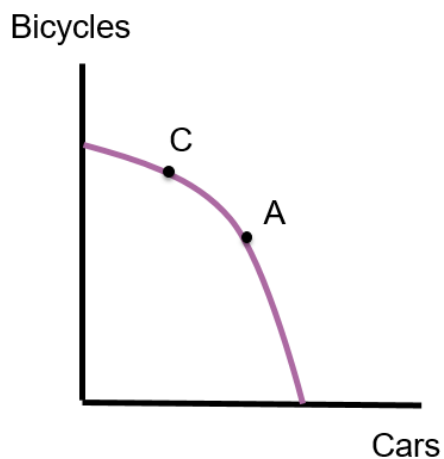
H) Suppose their parents insist that each spend 30 minutes cleaning and 30 minutes doing laundry. Is this an efficient use of Fiona's and Henry's time? Explain.

5. Production Possibilities Quiz

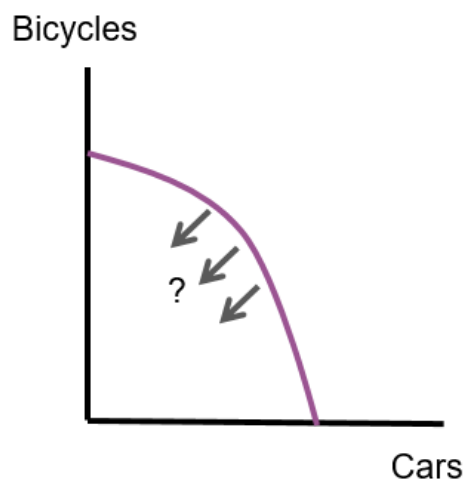
A. (True/False) Point A represents the amounts of cars and bicycles that will be sold.



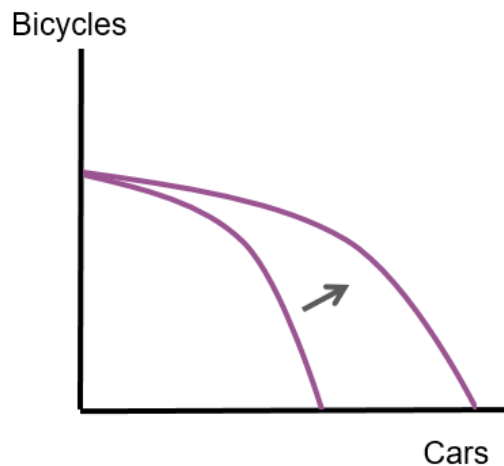
B. (True/False) Movement along the curve from point A to point C shows us the opportunity cost of producing more bicycles.



C. (True/False) If we have high unemployment, then the curve shifts in.



D. (True/False) If an improved process for manufacturing cars is introduced, society will be able to produce more cars and more bicycles.



6. Please watch this clip from “The Big Bang Theory” (you will find it in the Week 3 Tutorial section of Moodle). How does this clip illustrate opportunity cost?

7. You have been given a ticket to see Kanye West in concert tonight. You cannot resell the ticket. Ed Sheeran is performing on the same night & his concert is the only other activity you are considering. An Ed Sheeran ticket costs \$105 & on any given day you would be willing to pay as much as \$200 to see him play. There is no other cost of seeing either performer. What is the opportunity cost of attending the Kanye West concert? Explain your answer in 1-2 sentences.

Note: there is no option to see Kanye West tonight and Ed Sheeran tomorrow.

8. Consider the true costs of traveling from Sydney to Brisbane by train or plane. Suppose:

The train ticket costs: \$100 and takes 24 hours round trip.

The plane costs: \$200 and takes 4 hours round trip.

You value your travel time at \$4 an hour.

A) Should you take the train or the plane?

B) Can you find the \$/hour that makes train and plane travel equally attractive?