University of Lethbridge - Department of Economics ECON 1010 - Introduction to Microeconomics Instructor: Michael G. Lanyi

Lab #2

Chapter 2 — The Economic Problem

- 1) Which one of the following concepts is *not* illustrated by a production possibilities frontier?
 - A) opportunity cost
 - B) monetary exchange
 - C) attainable and unattainable points
 - D) scarcity
 - E) the tradeoff between producing one good versus another

Answer: B User1:

Use the figure below to answer the following question(s).

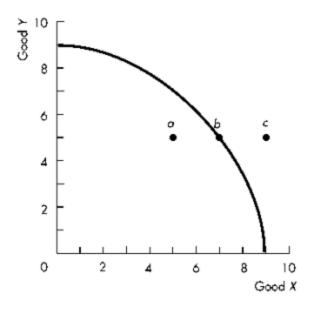


Figure 2.1

- 2) Complete the following sentence. In Figure 2.1,
 - A) movement from c to b would require a technological improvement.
 - B) some resources must be unemployed at point c.
 - C) point *b* is superior to point *a*.
 - D) the concept of decreasing opportunity cost is illustrated.
 - E) movement from *a* to *b* would require a technological improvement.

- 3) If Sam is producing at a point inside his production possibilities frontier, then he
 - A) is fully using all his resources.
 - B) can increase production of both goods with no increase in resources.
 - C) must be doing the best he can with limited resources.
 - D) has a high opportunity cost of moving from this point.
 - E) is unaffected by costs and technology.

Answer: B User1:

- 4) If Sam is producing at a point on his production possibilities frontier, then he
 - A) will be unable to gain from trade.
 - B) can increase the production of one good only by decreasing the production of the other.
 - C) is unaffected by costs and technology, since he is fully using his resources.
 - D) cannot produce any more of either good.
 - E) is not subject to scarcity.

Answer: B User1:

- 5) A production possibilities frontier will be negatively sloped because
 - A) some resources are not fully utilized.
 - B) there is not enough capital in the economy.
 - C) of more consumption.
 - D) of opportunity costs.
 - E) more goods are purchased as price falls.

Answer: D User1:

- 6) The concept of opportunity cost
 - A) is measured by the amount of the monetary costs of an activity.
 - B) implies that because productive resources are scarce, we must give up some of one good in order to acquire more of another.
 - C) implies that a double coincidence of wants must be present for exchange to take place.
 - D) explains that goods are swapped for goods.
 - E) implies that when a person is more efficient in the production of one good, he/she should produce that good and exchange it for some good that he/she is relatively less efficient at producing.

Answer: B User1:

- 7) On a diagram of a production possibilities frontier, opportunity cost is represented by
 - A) a point on the horizontal axis.
 - B) a point on the vertical axis.
 - C) the slope of the production possibilities frontier.
 - D) the *x*-axis intercept.
 - E) a ray through the origin.

- 8) The bowed-out (concave) shape of a production possibilities frontier
 - A) is due to the equal usefulness of resources in all activities.
 - B) reflects the existence of decreasing opportunity cost.
 - C) reflects the existence of increasing opportunity cost.
 - D) is due to capital accumulation.
 - E) is due to technological change.

Answer: C User1: Study Guide

- 9) Production efficiency is achieved when
 - A) more of one good cannot be produced without producing less of another.
 - B) there are no more tradeoffs.
 - C) resources are not equally productive in all activities.
 - D) the production possibilities frontier shifts outward at an even pace.
 - E) all resources are equally productive in all activities.

Answer: A User1:

- 10) If additional units of any good could be produced at a *constant* opportunity cost, the production possibilities frontier would be
 - A) negatively sloped.
 - B) bowed inward (convex).
 - C) linear.
 - D) bowed outward (concave).
 - E) positively sloped.

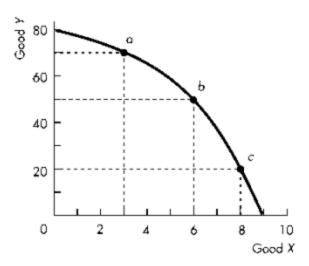


Figure 2.2

- 11) Refer to the production possibilities frontier in Figure 2.2. If 6 units of *X* are currently being produced, then
 - A) 60 units of *Y* can be produced with some resources *not* fully utilized.
 - B) 40 units of *Y* cannot be produced unless production of *X* is decreased.
 - C) 50 units of Y can be produced if all resources are fully utilized.
 - D) 40 units of *Y* cannot be produced unless production of *X* is increased.
 - E) 50 units of *Y* must be produced, regardless of resource utilization.

Answer: C User1:

- 12) Refer to the production possibilities frontier in Figure 2.2. If 3 units of X are currently being produced, the opportunity cost of producing 3 more units
 - A) is 20 units of *Y*.
 - B) cannot be determined from the diagram.
 - C) is 10 units of *Y*.
 - D) is 30 units of Y.
 - E) is 3 units of X.

Answer: A User1:

- 13) Refer to the production possibilities frontier in Figure 2.2. If 70 units of Y are currently being produced, the opportunity cost of increasing production of Y to 80 units is
 - A) 3 units of *X*.
 - B) 80 units of *Y*.
 - C) 1 unit of *X*.
 - D) 10 units of *Y*.
 - E) 2 units of X.

Use the figure below to answer the following question(s).

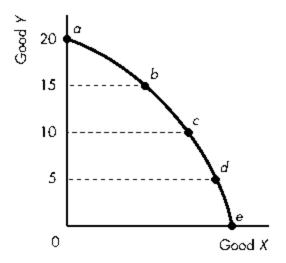


Figure 2.3

- 14) Figure 2.3 illustrates Mary's production possibilities frontier. If Mary wants to move from point b to point c,
 - A) it will be necessary to give up some of good *X* in order to obtain more of good *Y*.
 - B) she can accomplish this without any opportunity cost.
 - C) it will be necessary to increase the accumulation of capital.
 - D) it will be necessary to improve technology.
 - E) it will be necessary to give up some of good *Y* in order to obtain more of good *X*.

Answer: E User1:

- 15) Refer to the production possibilities frontier in Figure 2.3. Which one of the following movements requires the largest opportunity cost of increased *Y*?
 - A) d to c
 - B) b to a
 - C) e to d
 - D) c to b
 - E) The opportunity cost is the same in each case.

Use the table below to answer the following question(s).

Table 2.2 Production Possibilities

Possibility	Units of Butter	Units of Guns
a	8	0
b	6	1
c	0	3

- 16) Refer to Table 2.2. In moving from combination b to combination c, the opportunity cost of producing *one* additional unit of gun is
 - A) 2 units of butter.
 - B) 1/2 unit of butter.
 - C) 1/6 unit of butter.
 - D) 3 units of butter.
 - E) 6 units of butter.

Answer: D
User1:

Use the table below to answer the following question(s).

Consider the following production possibilities for a Student, for the typical week:

Possibility	Beer	Pizza
a	14 cases	0
\boldsymbol{b}	12 cases	6
c	9 cases	11
d	5 cases	14
e	0 cases	15

- 17) Complete the following sentence. The production possiblility frontier in the table above shows
 - A) constant opportunity cost.
 - B) decreasing opportunity cost.
 - C) learning-by-doing.
 - D) under-utilization of resources.
 - E) increasing opportunity cost.

Answer: E User1:

- 18) Complete the following sentence. A marginal cost curve
 - A) shows that as more of a good is produced, opportunity costs of producing another unit decrease.
 - B) is upward sloping.
 - C) is bowed inward so that its slope can become negative.
 - D) is downward sloping.
 - E) can be either upward or downward sloping.

- 19) Complete the following sentence. As you consume more and more of a good,
 - A) the marginal benefit decreases.
 - B) the marginal benefit increases.
 - C) the price of the good falls.
 - D) the marginal benefit increases or decreases depending on where you are on the production possibilities frontier.
 - E) the marginal benefit always equals the marginal cost.

Answer: A User1:

Use the figure below to answer the following question(s).

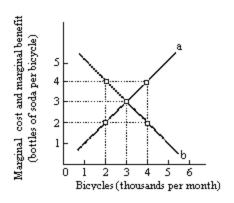


Figure 2.4

- 20) In Figure 2.4, the curve labelled *a* is the _____ curve and the curve labelled *b* is the _____ curve.
 - A) marginal cost; marginal benefit
 - B) marginal benefit; trade line
 - C) marginal cost; trade line
 - D) marginal benefit; marginal cost
 - E) production possibility; trade line

Answer: A User1:

- 21) In Figure 2.4, when 2,000 bicycles are made each month, we can see that
 - A) the marginal benefit from another bicycle is greater than the marginal cost of another bicycle.
 - B) more bicycles should be produced to reach the efficient level of output.
 - C) fewer bicycles should be produced to reach the efficient level of output.
 - D) the economy is very efficient at this level of production of bicycles.
 - E) both A and B.

- 22) Allocative efficiency refers to a situation where
 - A) we cannot produce more of any one good without giving up some other good.
 - B) opportunity costs are equal.
 - C) we cannot produce more of any good without giving up some other good that we value more highly.
 - D) all of the above.
 - E) none of the above.

Answer: C User1:

- 23) Suppose the production possibilities frontier for skirts and pants is a straight line. As the production of skirts increases, the marginal benefit of skirts
 - A) decreases and marginal cost increases.
 - B) decreases and marginal cost decreases.
 - C) decreases and marginal cost is constant.
 - D) increases and marginal cost is constant.
 - E) is constant and marginal cost decreases.

Answer: C User1: Study Guide

- 24) A technological improvement is represented by
 - A) a movement from a point inside the production possibilities frontier to a point on the production possibilities frontier.
 - B) an outward shift of the production possibilities frontier.
 - C) a point inside the production possibilities frontier.
 - D) a point outside the production possibilities frontier.
 - E) a movement along the production possibilities frontier.

Answer: B User1:

- 25) In general, if country A is accumulating capital at a faster rate than country B, then country A
 - A) is using a larger proportion of resources to produce consumption goods.
 - B) will soon have a comparative advantage in the production of most goods.
 - C) will have a production possibilities frontier that is shifting out faster than country *B*'s.
 - D) will have a higher rate of inflation than country *B*.
 - E) will have more unemployment than country *B*.

Answer: C User1:

- 26) Which one of the following is *not* something that will shift out the production possibilities frontier?
 - A) the use of unemployed resources
 - B) improvements in the weather
 - C) the accumulation of new ideas about better ways to produce goods
 - D) the production of less consumption goods
 - E) the accumulation of capital goods

- 27) Individuals *A* and *B* can both produce good *X*. We say that *A* has a comparative advantage in the production of good *X* if
 - A) A can produce less units of X in a given time period than B.
 - B) A has a lower opportunity cost of producing X than B.
 - C) A can produce X using newer technology than B.
 - D) A can produce more units of X in a given time period than B.
 - E) A has a higher opportunity cost of producing X than B.

Answer: B User1:

- 28) A person has an absolute advantage in producing a good when he/she
 - A) can produce more of that good than anyone else, using the same quantity of inputs.
 - B) can produce the good at lower opportunity cost than anyone else.
 - C) has a comparative advantage in producing that good.
 - D) has better technology than anyone else.
 - E) has exclusive rights to sell one good.

Answer: A User1:

Use the information below to answer the following question(s).

Fact 2.2

Agnes can produce either 1 unit of *X* or 1 unit of *Y* in an hour, while Brenda can produce either 2 units of *X* or 4 units of *Y* in an hour.

- 29) Refer to Fact 2.2. Which one of the following statements is true?
 - A) Brenda will not gain from trade.
 - B) Brenda has an absolute advantage over Agnes in the production of both goods.
 - C) Agnes has a comparative advantage in the production of *Y*.
 - D) Brenda has a comparative advantage in the production of *X*.
 - E) Agnes will not gain from trade.

Answer: B User1:

- 30) Given Fact 2.2, the opportunity cost of producing a unit of *X* is
 - A) 1 hour for Agnes and 2 hours for Brenda.
 - B) 1 unit of *Y* for Agnes and 1/2 unit of *Y* for Brenda.
 - C) 1 unit of *Y* for Agnes and 2 units of *Y* for Brenda.
 - D) 1 hour for Agnes and 1/2 hour for Brenda.
 - E) 1 hour for Agnes and 1/4 hour for Brenda.

- 31) Given Fact 2.2, the opportunity cost of producing a unit of Y is
 - A) 1 unit of *X* for Agnes and 1/2 unit of *X* for Brenda.
 - B) 1 unit of *Y* for Agnes and 2 units of *Y* for Brenda.
 - C) 1 hour for Agnes and 2 hours for Brenda.
 - D) 1 unit of Y for Agnes and 1/2 unit of Y for Brenda.
 - E) 1 hour for Agnes and 1/2 hour for Brenda.

Answer: A User1:

- 32) Complete the following sentence. Given Fact 2.2,
 - A) there will be gains from exchange if Agnes specializes in the production of *X* and Brenda in *Y*.
 - B) there will be gains from exchange, no matter what Brenda and Agnes specialize in, as long as they specialize.
 - C) there will be gains from exchange only if Agnes becomes faster at producing *X*.
 - D) there will be gains from exchange only if Agnes specializes in the production of *Y* and Brenda in *X*.
 - E) there will be no gains from exchange because Agnes has an absolute advantage.

Answer: A User1:

- 33) A medical clinic has 10 workers. Each worker can produce a maximum of either 2 units of medical services or 5 units of secretarial services a day. The production possibilities frontier of this firm would have
 - A) constant opportunity cost.
 - B) increasing opportunity cost.
 - C) under-utilization of resources.
 - D) over-utilization of resources.
 - E) learning-by-doing.

Answer: A User1:

- 34) A medical clinic has 10 workers. Each worker can produce a maximum of either 2 units of medical services or 5 units of secretarial services a day. The opportunity cost of one more unit of medical services is
 - A) dependent on the level of services.
 - B) 2.5 units of secretarial services
 - C) 5 units of secretarial services.
 - D) 0.4 units of secretarial services.
 - E) 2 units of secretarial services.

Answer: B

- 35) A medical clinic has 10 workers. Each worker can produce a maximum of either 2 units of medical services or 5 units of secretarial services a day. One day, the firm decides it would like to produce 10 units of medical services and 30 units of secretarial services. This output level is
 - A) costless.
 - B) efficient.
 - C) unattainable.
 - D) inefficient.
 - E) is attainable if the firm reduces the number of its workers.

- 36) A medical clinic has 10 workers. Each worker can produce a maximum of either 2 units of medical services or 5 units of secretarial services a day. One day, the firm decides it would like to produce 16 units of medical services and 5 units of secretarial services. This output level is
 - A) attainable and efficient.
 - B) unattainable.
 - C) efficient.
 - D) costless.
 - E) inefficient.

Answer: E User1:

Use the table below to answer the following question(s).

Table 2.1 The following table gives points on the production possibilities frontier for goods *X* and *Y*.

Point	Production of X	Production of <i>Y</i>
a	0	40
b	4	36
c	8	28
d	12	16
e	16	0

- 37) Refer to Table 2.1. What does point ϵ mean?
 - A) If 8 units of *X* are produced, then at most 28 units of *Y* can be produced.
 - B) There is unemployment at this point.
 - C) If 28 units of *Y* are produced, then more than 8 units of *X* can be produced.
 - D) If 8 units of *X* are produced, then only 36 units of *Y* can be produced.
 - E) If 8 units of *X* are produced, then at least 28 units of *Y* can be produced.

Answer: A User1:

- 38) Refer to Table 2.1. The opportunity cost of increasing the production of *X* from 8 to 12 units is
 - A) 4 units of *X*.
 - B) 4 units of Y.
 - C) 16 units of *Y*.
 - D) 8 units of *Y*.
 - E) 12 units of *Y*.

Answer: E
User1:

- 39) Refer to Table 2.1. The opportunity cost of increasing the production of Y from 16 to 36 units is
 - A) 12 units of *X*.
 - B) 4 units of *X*.
 - C) 20 units of *Y*.
 - D) 16 units of *X*.
 - E) 8 units of *X*.

- 40) From the data in Table 2.1, the production of 7 units of *X* and 28 units of *Y* is
 - A) impossible given the available resources.
 - B) a possibility we cannot determine from the table.
 - C) on the *PPF* between points c and d.
 - D) on the *PPF* between points b and c.
 - E) possible but leaves some resources less than fully utilized.

Answer: E User1:

- 41) Refer to Table 2.1. As we increase the production of X,
 - A) the amount of *Y* that is given up for each additional unit of *X* decreases.
 - B) the amount of *X* increases at an increasing rate.
 - C) the output of *Y* increases.
 - D) the opportunity cost of each new unit of X increases.
 - E) unemployment increases.

Answer: D User1:

- 42) From the data in Table 2.1 we can infer that
 - A) the opportunity cost of producing an additional unit of *Y* increases as the production of *Y* increases.
 - B) the opportunity cost of producing an additional unit of *Y* decreases as the production of *Y* increases.
 - C) the economy illustrated has a comparative advantage in the production of *X*.
 - D) the economy illustrated has a comparative advantage in the production of *Y*.
 - E) none of the above.

Answer: A User1:

- 43) From the data in Table 2.1, the production of 10 units of *X* and 28 units of *Y* is
 - A) something whose possibility we cannot infer from the table.
 - B) possible but leaves some resources less than fully utilized.
 - C) impossible given the available resources.
 - D) possible if we reduce the amount of capital goods.
 - E) on the production possibilities frontier between points c and d.

Use the figure below to answer the following question(s).



Figure 2.5

- 44) Refer to the production possibilities frontier in Figure 2.5. The production possibilities frontier will shift out more rapidly if current production is at
 - A) a.
 - B) b.
 - C) c.
 - D) d.
 - E) e.

Answer: A

User1:

- 45) Refer to the production possibilities frontier in Figure 2.5. Which point indicates that resources are not fully utilized?
 - A) a.
 - B) b.
 - C) c.
 - D) *d*.
 - E) e.

Answer: D

User1:

- 46) Refer to the production possibilities frontier in Figure 2.5. Which point is unattainable?
 - A) a.
 - B) b.
 - C) c.
 - D) d.
 - E) e.

Answer: E

User1:

Use the table below to answer the following question(s).

Table 2.5 Production for one week by Sheila and Bruce

Sheila		Bruce		
$\operatorname{Good} X$	Good Y	$\operatorname{Good} X$	Good Y	
8	0	20	0	
6	1	15	2	
4	2	10	4	
2	3	5	6	
0	4	0	8	

- 47) Consider Table 2.5. All of the following are true except:
 - A) Bruce has a comparative advantage in the production of X.
 - B) Sheila has an absolute advantage in the production of X.
 - C) Sheila has an absolute advantage in the production of Y.
 - D) Sheila has a comparative advantage in the production of X.
 - E) There are no potential gains from trade.

Answer: A User1:

- 48) Given the information in Table 2.5, can Sheila and Bruce gain by specialization?
 - A) It depends on the wages each earns.
 - B) only if they are married to each other
 - C) no, not under the given circumstances
 - D) yes, unconditionally
 - E) yes, but only if Bruce gets paid more than Sheila

Answer: D User1:

- 49) Given the information in Table 2.5, which one of the following is true?
 - A) Sheila should specialize in good X.
 - B) The opportunity cost to Bruce of an additional unit of X is 0.4 units of Y.
 - C) Bruce should specialize in good X.
 - D) A and B.
 - E) B and C.