

Essential Foundations of Economics, 8e (Bade)

Chapter 3 The Economic Problem

3.1 Production Possibilities

1) The United States produced approximately _____ worth of goods and services in 2011.

- A) \$15 trillion
- B) \$15 billion
- C) \$150 trillion
- D) \$150 billion
- E) \$1,500 trillion

Answer: A

Topic: Production possibilities

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

2) Which of the following is an assumption used when drawing a production possibilities frontier?

- i. Human wants and desires are limited to what is available.
- ii. Only two goods are considered.
- iii. The level of technology is fixed and unchanging.

- A) i only
- B) ii only
- C) i and iii
- D) ii and iii
- E) i, ii, and iii

Answer: D

Topic: Production possibilities frontier

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

3) In the production possibilities model, the vertical axis measures _____ and the horizontal axis measures _____.

- A) the quantity of a good or service; the quantity of another good or service
- B) the price of a good or service; the quantity of the good or service
- C) the price of a good or service; the price of another good or service
- D) the quantity of a good or service; time
- E) people's wants; the quantity of a good or service

Answer: A

Topic: Production possibilities frontier

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 4) The production possibilities frontier illustrates the
- A) maximum combinations of goods and services that can be produced.
 - B) resources the economy possess, but not its level of technology.
 - C) goods and services that people want.
 - D) limits to people's wants.
 - E) amount of each good that people want to buy.

Answer: A

Topic: Production possibilities frontier

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 5) When drawing a production possibilities frontier, which of the following is held constant?
- A) the amount of money in the economy
 - B) the available factors of production and the state of technology
 - C) the prices of goods and services
 - D) the quantity of the goods and services that are produced
 - E) None of the above because nothing is held constant when drawing the production possibilities frontier.

Answer: B

Topic: Production possibilities frontier

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 6) A production possibilities frontier shows
- A) the various combinations of output a nation can produce a certain time, given its available resources and technology.
 - B) the limits to future growth of a nation.
 - C) how money can be allocated among two kinds of goods.
 - D) that if price of one good decreases, the price of the other has to increase.
 - E) that it is impossible to produce inefficiently.

Answer: A

Topic: Production possibilities frontier

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

7) The production possibilities frontier is the

- A) maximum output that can be produced at an opportunity cost of zero.
- B) minimum output that can be produced when resources are used inefficiently.
- C) boundary between the combinations of goods and services that can be produced and the combinations that cannot be produced, given the available factors of production and the state of technology.
- D) boundary between the combinations of goods and services that can be produced and the combinations that cannot be produced when technology is changing.
- E) maximum opportunity cost combinations of goods and services.

Answer: C

Topic: Production possibilities frontier

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

8) The production possibilities frontier is the boundary between the

- A) goods and services that the economy can produce.
- B) attainable and unattainable combinations of goods and services.
- C) wanted and unwanted combinations of goods and services.
- D) rational and irrational choices facing a society.
- E) affordable and unaffordable combinations of production.

Answer: B

Topic: Production possibilities frontier

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

9) Consider a production possibility frontier with jeans on the vertical axis and shoes on the horizontal axis. As the country moves along the frontier closer to the horizontal axis,

- A) more jeans are produced.
- B) the country eventually chooses an unattainable point.
- C) free lunches occur.
- D) more tradeoffs occur.
- E) more shoes are produced.

Answer: E

Topic: Production possibilities frontier

Skill: Level 4: Applying models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

10) While *moving along* a production possibilities frontier, the amount of labor _____, the amount of capital _____, and the level of technology _____.

- A) is fixed; is fixed; varies
- B) varies; is fixed; varies
- C) varies; is fixed; is fixed
- D) is fixed; is fixed; is fixed
- E) varies; varies; varies

Answer: D

Topic: Production possibilities frontier

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

	Airplanes	Cruise ships
Possibility	(number)	(number)
A	100	0
B	80	20
C	50	40
D	0	60

11) The table above gives four production possibilities for airplanes and cruise ships. In possibility A, how many resources are devoted to the production of airplanes?

- A) 0
- B) few
- C) most
- D) all
- E) It is impossible to tell without more information about the prices of airplanes and cruise ships.

Answer: D

Topic: Production possibilities frontier

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

12) The table above gives four production possibilities for airplanes and cruise ships. In possibility A, how many resources are devoted to the production of cruise ships?

- A) 0
- B) few
- C) most
- D) all
- E) It is impossible to tell without more information about the prices of airplanes and cruise ships.

Answer: A

Topic: Production possibilities frontier

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

- 13) Moving from one point to another on a production possibilities frontier implies
- A) increasing the production of both goods.
 - B) decreasing the production of both goods.
 - C) increasing the production of one good and decreasing the production of another.
 - D) holding the production levels of both goods constant.
 - E) changing the amount of factors of production that are employed.

Answer: C

Topic: Production possibilities frontier

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 14) Assume that an association of young workers has lobbied Congress to require that all workers retire once they reach the age of fifty. What impact would this law have on the nation's production possibilities frontier?

- A) no impact at all
- B) The level of unemployment would decrease so the production possibilities frontier would shift outward.
- C) The nation would move to a new position on its production possibilities frontier but the frontier itself would not shift.
- D) The production possibilities frontier would shift inward.
- E) The number of young workers would increase so the production possibilities frontier would shift outward.

Answer: D

Topic: Production possibilities frontier

Skill: Level 4: Applying models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

- 15) A major earthquake occurs in the central part of the United States. What impact would this have on the nation's production possibilities frontier and why?

- A) It would shift outward because unemployment would be reduced.
- B) Nothing would happen because the nation would still have the same capabilities.
- C) A tradeoff would occur to replace the resources and goods destroyed.
- D) It would shift inward because some of the nation's resources, such as capital and labor, would be destroyed.
- E) It would not shift because people would get to work to replace any capital that was destroyed.

Answer: D

Topic: Production possibilities frontier

Skill: Level 4: Applying models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

- 16) When all of the available factors of production are being efficiently employed, the
- A) economy is producing at a point within its *PPF*.
 - B) economy is producing at a point on its *PPF*.
 - C) economy is producing at a point beyond its *PPF*.
 - D) *PPF* disappears.
 - E) opportunity cost of changing production is infinite.

Answer: B

Topic: Attainable points

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 17) In a production possibilities frontier diagram, the attainable production points are shown as
- A) only the points on the production possibilities frontier.
 - B) only the points beyond the production possibilities frontier.
 - C) only the points inside the production possibilities frontier.
 - D) the points inside and the points on the production possibilities frontier.
 - E) *any* of the production points.

Answer: D

Topic: Attainable points

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 18) In the production possibilities frontier model, an unattainable point lies
- A) only on the production possibilities frontier itself.
 - B) only inside the production possibilities frontier.
 - C) only outside the production possibilities frontier.
 - D) both on and outside the production possibilities frontier.
 - E) There are no unattainable points in the production possibilities model.

Answer: C

Topic: Unattainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

19) Production efficiency is represented by _____ a production possibilities frontier.

- A) all points on
- B) all points inside
- C) all points outside
- D) a movement along
- E) only one point on

Answer: A

Topic: Production efficiency

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

20) If an economy cannot produce more of one good without producing less of another good, this implies that which of the following has been achieved?

- A) allocative efficiency
- B) minimum marginal cost
- C) *PPF* efficiency
- D) production efficiency
- E) maximum marginal benefit

Answer: D

Topic: Production efficiency

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

21) Production efficiency occurs

- A) anywhere inside or on the production possibilities frontier.
- B) when the total cost of production is minimized.
- C) at all points on the production possibilities frontier.
- D) at only one point on the production possibilities frontier.
- E) at all points inside the production possibilities frontier.

Answer: C

Topic: Production efficiency

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 22) When production efficiency does NOT occur,
- i. an economy is producing at a point within its *PPF*.
 - ii. there are unemployed resources.
 - iii. allocative efficiency cannot occur.

- A) i only
- B) i and ii
- C) iii only
- D) i and iii
- E) i, ii, and iii

Answer: E

Topic: Production efficiency

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 23) If there is unemployment in an economy, then the
- A) production possibilities frontier will shift inwards.
 - B) economy is operating at an unattainable point.
 - C) production possibilities frontier will shift outwards.
 - D) economy is producing at a point inside the production possibilities frontier.
 - E) production possibilities frontier must be bowed inward.

Answer: D

Topic: Attainable points, unemployment

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 24) If a society moves from a period of time with significant unemployment to a time with full employment, its production possibilities frontier will
- A) shift leftward.
 - B) shift rightward.
 - C) not shift because the society moves from one point on the frontier to a point inside the frontier.
 - D) not shift because the society moves from a point inside the frontier to a point on the frontier.
 - E) not shift because the society moves from one point on the frontier to a point outside the frontier.

Answer: D

Topic: Attainable points, unemployment

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

25) Suppose that an economy is currently producing at a point that lies inside of its production possibilities set. Which of the following would best explain this circumstance?

- A) The economy does not have enough resources to produce at a point closer to the frontier of the production possibilities set.
- B) The prevailing level of technology prevents the economy from producing at a point closer to the frontier of the production possibilities set.
- C) The economy is experiencing a high level of unemployment.
- D) Any of the above statements could explain this situation.
- E) None of the above statements could explain this situation.

Answer: C

Topic: Attainable points, unemployment

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: New

AACSB: Analytical thinking

26) Which of the following correctly describes the relationship between productivity growth, unemployment, and the economy's production possibilities frontier?

- A) An increase in productivity moves the economy from inside the production possibilities set to its frontier.
- B) An increase in productivity shifts the economy from the production possibilities frontier to a point outside the production possibilities set.
- C) An increase in unemployment shifts the economy further inside its production possibilities set.
- D) An increase in unemployment shifts the economy from a point outside the production set back to the production possibilities frontier.
- E) A reduction in unemployment shifts the entire production possibilities frontier outward.

Answer: C

Topic: Attainable points, unemployment

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: New

AACSB: Analytical thinking

27) A point on the production possibilities frontier reflects an

- A) attainable point with full employment of all resources.
- B) attainable point without full employment of all resources.
- C) unattainable point with full employment of all resources.
- D) unattainable point without full employment of all resources.
- E) None of the above answers is correct.

Answer: A

Topic: Attainable points, full employment

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

28) Suppose a country operates on its production possibility frontier when it produces 1,000 books and 1,000 tables. The combination of _____ reflects _____.

- A) 500 books and 1,000 tables; an inefficient but attainable point.
- B) 1,000 books and 500 tables; an efficient point.
- C) 1,000 books and 1,000 tables; a free lunch.
- D) 500 books and 500 tables; an attainable and efficient point.
- E) 1,000 books and 1,500 tables; a free lunch.

Answer: A

Topic: Attainable points, inefficiency

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

29) Consider a production possibility frontier with books and tables. A combination of 1,000 books and 500 tables is on the frontier. Which of the following are true?

- i. Production of 700 books and 400 tables is attainable but inefficient.
- ii. Production of 1,000 books and 600 tables is unattainable.
- iii. Production of 500 books and 1,000 tables is inside the frontier.

- A) i and ii
- B) i, ii and iii
- C) i and iii
- D) ii and iii
- E) i only

Answer: A

Topic: Attainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

Possibility	Bread (number)	Books (number)
A	0	1,000
B	100	900
C	200	700
D	300	400
E	400	0

30) The table above shows a production possibilities frontier for an economy. Which of the following combinations is unattainable?

- A) 0 loaves of bread and 800 books
- B) 100 loaves of bread and 800 books
- C) 200 loaves of bread and 800 books
- D) 300 loaves of bread and 200 books
- E) 0 loaves of bread and 0 books

Answer: C

Topic: Unattainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

31) The table above shows a production possibilities frontier for an economy. If the economy tried to produce a combination of 250 loaves of bread and 800 books,

- A) there is some unemployment.
- B) there is full employment.
- C) the tradeoff between bread and books is inefficient.
- D) it cannot produce this combination because it lacks enough resources or technology.
- E) it is enjoying a free lunch.

Answer: D

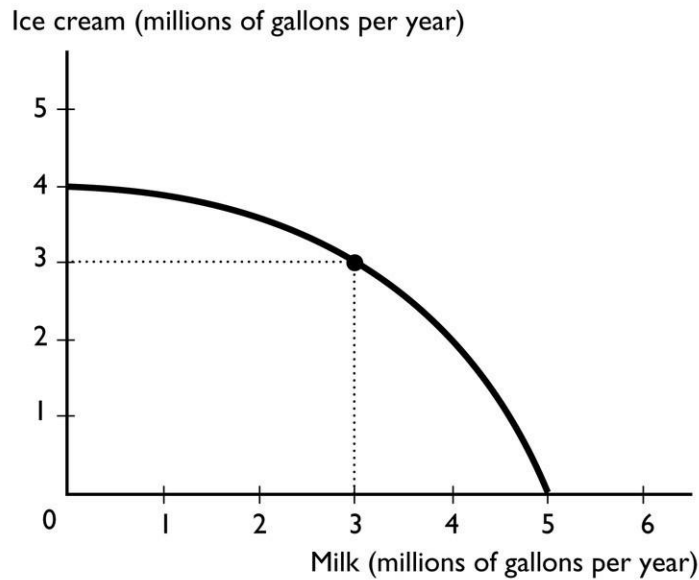
Topic: Unattainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking



32) The figure above shows the production possibilities frontier for a country. A combination of 4 million gallons of milk and 4 million gallons of ice cream is

- A) unattainable.
- B) attainable and production efficient.
- C) attainable and production inefficient.
- D) unattainable and production efficient.
- E) More information is needed to determine if the point is attainable or not.

Answer: A

Topic: Unattainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

33) The figure above shows the production possibilities frontier for a country. A combination of 3 million gallons of milk and 3 million gallons of ice cream is

- A) unattainable.
- B) attainable and production efficient.
- C) attainable and production inefficient.
- D) unattainable and production efficient.
- E) More information is needed to determine if the point is attainable or not.

Answer: B

Topic: Attainable points, full employment

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

34) The figure above shows the production possibilities frontier for a country. A combination of 2 million gallons of milk and 2 million gallons of ice cream is

- A) unattainable.
- B) attainable and production efficient.
- C) attainable and production inefficient.
- D) attainable but more than production efficient.
- E) More information is needed to determine if the point is attainable or not.

Answer: C

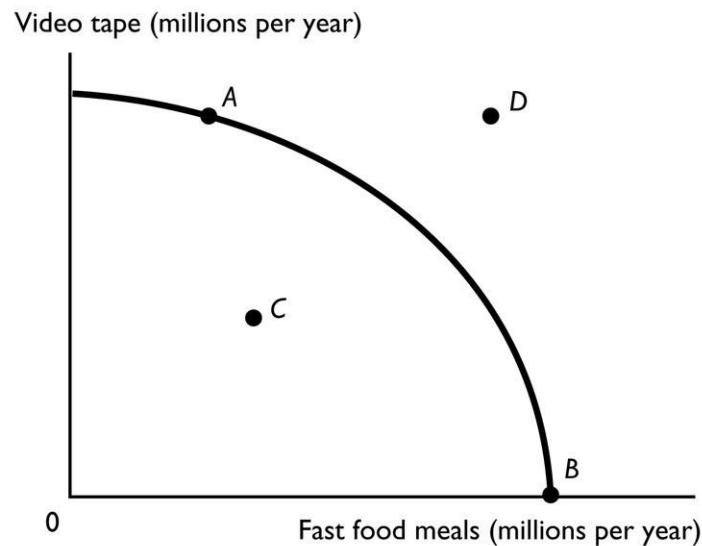
Topic: Attainable points, unemployment

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking



35) Point D in the above PPF figure is

- A) an attainable production combination with unemployed resources.
- B) a tradeoff.
- C) an unattainable production combination.
- D) a production combination that can be attained once resources are fully employed.
- E) More information is needed to determine which of the above answers is correct.

Answer: C

Topic: Unattainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

36) Which point in the figure above is an attainable combination that would have unemployed resources?

- A) point A
- B) point B
- C) point C
- D) point D
- E) point A and point B

Answer: C

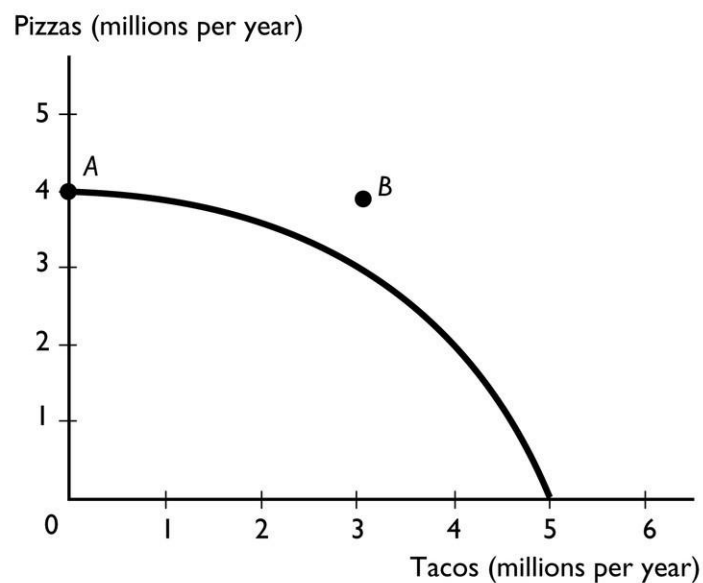
Topic: Attainable points, unemployment

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking



37) The figure above shows a nation's production possibilities frontier. In the figure, point A shows

- A) the maximum quantity of pizza that can be produced.
- B) the minimum quantity of pizza that the society must produce.
- C) an unattainable point.
- D) an attainable point with unemployed resources.
- E) More information is needed to determine which of the above answers is correct.

Answer: A

Topic: Attainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

- 38) The figure above shows a nation's production possibilities frontier. In the figure, point *B* shows
- A) an unattainable point.
 - B) an attainable point.
 - C) a point with a free lunch.
 - D) a point with no trade off.
 - E) a point at which there are unemployed resources.

Answer: A

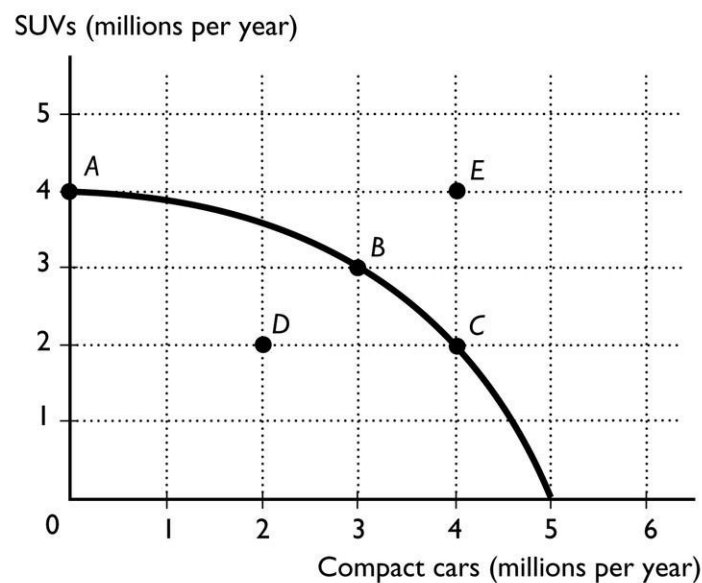
Topic: Unattainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking



- 39) The figure above shows the production possibilities frontier for a country. In order for it to produce at point *E*, the
- A) country would need to acquire more resources and/or more advanced technology.
 - B) production of compact cars would need to decrease.
 - C) production of SUVs would need to decrease.
 - D) country would need to use its resources more efficiently.
 - E) country would need to determine that compact cars and SUVs are equally important to it.

Answer: A

Topic: Unattainable points

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

40) The figure above shows the production possibilities frontier for a country. If the country is producing at point *D*, then the

- A) resources are being used efficiently.
- B) technology associated with producing SUVs and compact cars is advancing.
- C) resources are not being used efficiently and/or are unemployed.
- D) production of SUVs and compact cars is maximized.
- E) None of the above answers are correct because it is not possible to produce at point *D*.

Answer: C

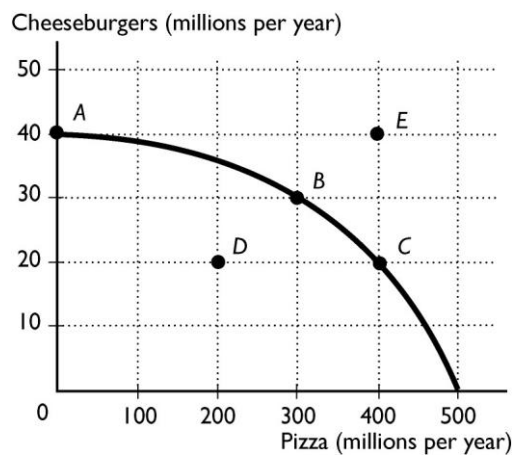
Topic: Attainable points, unemployment

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking



41) The above figure shows the production possibility frontier for an economy. The point or points that are attainable and production efficient are

- A) points *B* and *C*.
- B) points *A*, *B*, and *C*.
- C) point *E*.
- D) points *A*, *B*, *C*, and *D*.
- E) points *A* and *D*.

Answer: B

Topic: Production possibilities frontier

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

42) The above figure shows the production possibility frontier for an economy. The point or points that are attainable are

- A) points *B* and *C*.
- B) points *A*, *B*, and *C*.
- C) point *E*.
- D) points *A*, *B*, *C*, and *D*.
- E) points *A* and *D*.

Answer: D

Topic: Production possibilities frontier

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

43) The above figure shows the production possibility frontier for an economy. The point or points that are not attainable are

- A) points *B* and *C*.
- B) points *A*, *B*, and *C*.
- C) point *E*.
- D) points *A*, *B*, *C*, and *D*.
- E) points *A* and *D*.

Answer: C

Topic: Production possibilities frontier

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

44) In order for Ireland to grow more potatoes, wool production must decrease. This situation is an example of

- A) producing at a point that lies beyond the *PPF*.
- B) zero opportunity cost.
- C) opportunity benefit.
- D) a free lunch.
- E) a tradeoff.

Answer: E

Topic: Tradeoffs

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 45) As we move along the production possibilities frontier,
- A) the production of one good increases as the production of the other good decreases.
 - B) the possibilities of tradeoffs diminish.
 - C) a tradeoff is not possible because nations need all goods.
 - D) more of both goods can be produced.
 - E) less of both goods can be produced.

Answer: A

Topic: Tradeoffs

Skill: Level 4: Applying models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 46) Which of the following statements is correct?
- A) If capital is idle, the economy is producing at its full potential.
 - B) The production possibilities frontier shows that there are no limits to production.
 - C) A tradeoff is a limit that forces an exchange or a substitution of one thing for something else.
 - D) Any point on or within the *PPF* is production efficient.
 - E) None of the above answers is correct.

Answer: C

Topic: Tradeoffs

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 47) When a nation is producing on its production possibilities frontier, if more resources are used to produce one good, then the production of other goods
- A) *must* increase.
 - B) *must* decrease.
 - C) *must* remain the same.
 - D) *must* change but they might increase or decrease.
 - E) *might* increase if the nation can produce more efficiently.

Answer: B

Topic: Tradeoffs

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 48) The negative slope of the production possibilities frontier represents the idea
- A) that free lunches are possible.
 - B) of tradeoffs, that in order to produce more of one good, the nation must produce less of another.
 - C) of unemployment.
 - D) of inefficient production.
 - E) that prices rise as less is produced.

Answer: B

Topic: Tradeoffs

Skill: Level 4: Applying models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 49) A movement from one point on a production possibilities frontier to another represents

- A) a tradeoff.
- B) a free lunch.
- C) full employment of labor but not capital.
- D) unemployment.
- E) an advance in technology.

Answer: A

Topic: Tradeoffs

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 50) The saying "There's no such thing as a free lunch," applies

- A) when there is some unemployment.
- B) on the production possibilities frontier.
- C) to unattainable combinations of goods and services.
- D) when more of one good can be produced without decreasing production of another.
- E) at all points inside the *PPF*.

Answer: B

Topic: Tradeoffs

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

51) A free lunch (the absence of a tradeoff) when the production of a good is increased is possible for the entire economy only if

- A) less of some product is produced.
- B) prices are decreased.
- C) prices are increased.
- D) resources are used inefficiently.
- E) there is a movement along the *PPF*.

Answer: D

Topic: Free lunches

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

52) A movement from a point inside the production possibilities frontier to a point on the production possibilities frontier represents

- A) a tradeoff.
- B) a free lunch.
- C) full employment of labor but not capital.
- D) unemployment of labor but not capital.
- E) an infinite opportunity cost.

Answer: B

Topic: Free lunches

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

53) A reason the production possibilities frontier exists is

- A) unlimited resources and technology.
- B) scarcity of resources.
- C) scarcity of resources and unlimited technology.
- D) unemployment.
- E) that people's wants are unlimited.

Answer: B

Topic: Production possibilities frontier

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 54) The production possibilities frontier is a graph showing the
- A) exact point of greatest efficiency for producing goods and services.
 - B) tradeoff between free lunches.
 - C) maximum combinations of goods and services that can be produced.
 - D) minimum combinations of goods and services that can be produced.
 - E) resources available for the economy's production use.

Answer: C

Topic: Production possibilities frontier

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 55) The production possibilities frontier is a boundary that separates
- A) the combinations of goods that can be produced from the combinations of services.
 - B) attainable combinations of goods and services that can be produced from unattainable ones.
 - C) equitable combinations of goods and services that can be produced from inequitable ones.
 - D) fair combinations of goods and services that can be consumed from unfair ones.
 - E) affordable production points from unaffordable points.

Answer: B

Topic: Production possibilities frontier

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 56) Points inside the *PPF* are all
- A) unattainable and have fully employed resources.
 - B) attainable and have fully employed resources.
 - C) unattainable and have some unemployed resources.
 - D) attainable and have some unemployed resources.
 - E) unaffordable.

Answer: D

Topic: Attainable points, inefficiency

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 57) During a time of high unemployment, a country can increase the production of one good or service
- A) without decreasing the production of something else.
 - B) but must decrease the production of something else.
 - C) and must increase the production of something else.
 - D) by using resources in the production process twice.
 - E) but the opportunity cost is infinite.

Answer: A

Topic: Free lunches

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 58) Moving along the production possibilities frontier itself illustrates

- A) the existence of tradeoffs.
- B) the existence of unemployment of some factors of production.
- C) the benefits of free lunches.
- D) how free lunches can be exploited through trade.
- E) how tradeoffs need not occur if the economy is efficient.

Answer: A

Topic: Tradeoffs

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

- 59) The production possibilities frontier illustrates which of the following economic ideas?

- A) efficiency
- B) tradeoffs
- C) opportunity cost
- D) all of the above
- E) none of the above

Answer: D

Topic: Production possibilities frontier

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: New

AACSB: Reflective thinking

60) Points on the *PPF* are all

- A) unattainable and have fully employed resources.
- B) free lunches.
- C) inefficient.
- D) attainable and have some unemployed resources.
- E) production efficient.

Answer: E

Topic: Production efficiency

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

3.2 Opportunity Cost

1) In a production possibilities frontier graph, the cost of producing more units of a good is measured by the

- A) dollar value of the resources used to produce the good.
- B) amount of the other good or service that must be forgone.
- C) dollar value of the additional output.
- D) area in the arc between the *PPF* and a straight line drawn between the starting point and the ending point.
- E) None of the above answers is correct.

Answer: B

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

2) The opportunity cost of producing one more unit of a good is calculated by dividing the

- A) increase in the quantity of that good by the decrease in the quantity of other good.
- B) total quantity of that good by the total quantity of other good.
- C) decrease in the quantity of the other good by the increase in the quantity of the good whose opportunity cost we're calculating.
- D) total quantity of the other good by the total quantity of the good whose opportunity cost we're calculating.
- E) price of the good whose opportunity cost we are calculating by the number of units of the other good that are forgone.

Answer: C

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

- 3) To find the opportunity cost of producing one more unit of any product while on the production possibilities frontier requires
- A) setting the amounts of the two products equal to each other.
 - B) setting the change in one product equal to the change in the other product.
 - C) dividing the amount of the product forgone by the amount of the product gained.
 - D) subtracting the change in the product whose production increased from the change in the product whose production decreased.
 - E) None of these describe how to find opportunity cost.

Answer: C

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

- 4) To calculate the opportunity cost per unit, you divide the decrease in the quantity of the forgone item by the
- A) decrease in the quantity of the other item.
 - B) increase in the quantity of the other item obtained.
 - C) price of the item obtained.
 - D) price of the item forgone.
 - E) price of the item obtained and then multiply by the price of the item forgone.

Answer: B

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

- 5) On a production possibilities frontier, 500 pounds of apples and 1,200 pounds of bananas can be produced while at another point on the same frontier, 300 pounds of apples and 1,300 pounds of bananas can be produced. Between these points, what is the opportunity cost of producing a pound of bananas?
- A) 2 pounds of bananas
 - B) 200 pounds of apples
 - C) 2 pounds of apples
 - D) 0.5 a pound of apples
 - E) $12/5 = 2.4$ pounds of apples

Answer: C

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

6) On a production possibilities frontier, 500 pounds of apples and 1,200 pounds of bananas can be produced while at another point on the same frontier, 300 pounds of apples and 1,300 pounds of bananas can be produced. Between these points, what is the opportunity cost of producing a pound of apples?

- A) 2 pounds of bananas
- B) 100 pounds of bananas
- C) 2 pounds of apples
- D) 0.5 of a pound of bananas
- E) 5/12 of a pound of bananas

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

7) A country produces only apples and bananas. Moving from point *A* to point *B* along its production possibilities frontier, 5 apples are forgone and 4 bananas are gained. What is the opportunity cost of a banana?

- A) 4 apples
- B) 5/4 of an apple
- C) 4/5 of an apple
- D) 1 banana
- E) None of the above answers is correct.

Answer: B

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

8) A country produces only apples and bananas. Moving from point *A* to point *B* along its production possibilities frontier, 5 apples are gained and 4 bananas are forgone. What is the opportunity cost of an apple?

- A) 4 bananas
- B) 5/4 of a banana
- C) 4/5 of a banana
- D) 1 apple
- E) None of the above answers is correct.

Answer: C

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

	Fish	Fruit
Possibility	(pounds)	(pounds)
A	37	56
B	31	78
C	20	90
D	9	99

9) Robinson Crusoe divides his time between catching fish and gathering fruit. Part of his production possibilities frontier is given in the above table. If Mr. Crusoe is on his *PPF* and he increases the amount of fruit he gathers from 56 to 90 pounds, the opportunity cost is

- A) 37 pounds of fish.
- B) 31 pounds of fish.
- C) 17 pounds of fish.
- D) 34 pounds of fruit.
- E) 90 pounds of fruit.

Answer: C

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

10) Robinson Crusoe divides his time between catching fish and gathering fruit. Part of his production possibilities frontier is given in the above table. Mr. Crusoe, while lonesome, is efficient and always stays on his *PPF*. Mr. Crusoe is consuming 20 pounds of fish. Then he decides to slowly become a vegetarian and decrease his consumption of fish to 9 pounds. This decision means that Mr. Crusoe will

- A) incur an opportunity cost of 9 pounds of fruit.
- B) incur an opportunity cost of 20 pounds of fish.
- C) be able to enjoy a gain of 9 pounds of fruit.
- D) incur an opportunity cost of 99 pounds of fruit.
- E) incur an opportunity cost of 9 pounds of fish.

Answer: C

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

Possibility	Robots	Pizza
<i>A</i>	0	40
<i>B</i>	1	39
<i>C</i>	2	37
<i>D</i>	3	34
<i>E</i>	4	30
<i>F</i>	5	20
<i>G</i>	6	0

11) The table above shows a nation's production possibilities frontier. If the nation wants to produce 4 robots and 34 pizzas,

- A) it will shift the production possibilities frontier.
- B) the opportunity cost is 9 pizzas.
- C) the nation will be producing inefficiently.
- D) it will be unable to do so because the production point is unattainable.
- E) the nation will then be producing at a production efficient point.

Answer: D

Topic: Unattainable points

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

12) The table above shows a nation's production possibilities frontier. If the nation chooses to increase the production of robots from 2 to 3 and it is on its *PPF*, it will have to forgo _____ pizzas.

- A) 37
- B) 34
- C) 3
- D) 35.5
- E) None of the above answers is correct.

Answer: C

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

13) The table above shows a nation's production possibilities frontier. The opportunity cost of a robot between combination *D* and *E* is

- A) 4 pizzas.
- B) 34 pizzas.
- C) 30 pizzas.
- D) 1/4 of a pizza.
- E) undefined because neither point is production efficient.

Answer: A

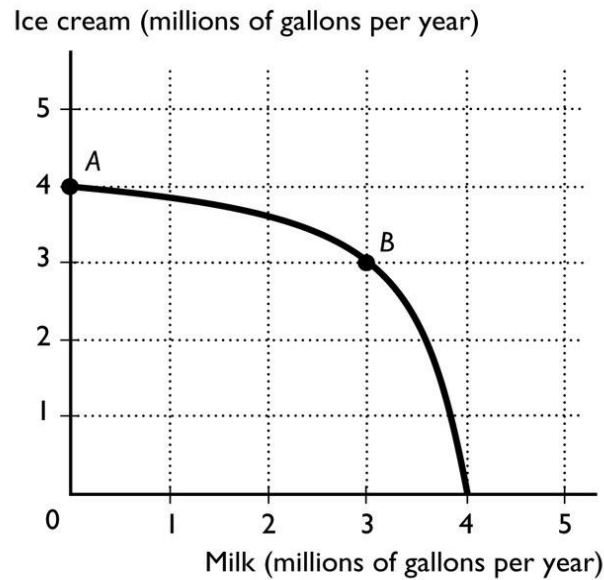
Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking



14) The figure above shows the production possibilities frontier for a country. The opportunity cost of a gallon of milk between combination point A and B is

- A) 4 gallons of ice cream for a gallon of milk.
- B) 3 gallons of ice cream for a gallon of milk.
- C) 1 gallon of ice cream for a gallon of milk.
- D) $\frac{1}{3}$ of a gallon of ice cream for a gallon of milk.
- E) zero because at point A zero milk is being produced.

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

15) The figure above shows the production possibilities frontier for a country. If the economy is operating at point B, then the opportunity cost of another million gallons of milk is

- A) 4 gallons of ice cream for a gallon of milk.
- B) 3 gallons of ice cream for a gallon of milk.
- C) 1 gallon of ice cream for a gallon of milk.
- D) $\frac{1}{3}$ of a gallon of ice cream for a gallon of milk.
- E) zero because after producing another million gallons of milk then zero gallons of ice cream are produced.

Answer: B

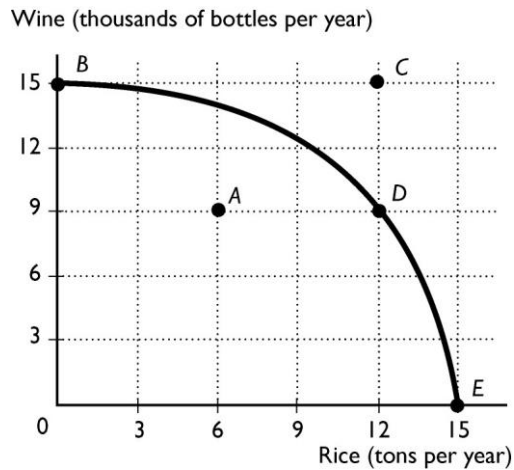
Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking



16) The above figure shows the production possibility frontier for a country. Suppose the country is producing at point A. What is the opportunity cost of increasing the production of rice to 12 tons?

- A) 15 thousand bottles of wine
- B) 6 thousand bottles of wine
- C) 9 thousand bottles of wine
- D) 12 tons of rice
- E) Nothing, it is a free lunch.

Answer: B

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

17) The above figure shows the production possibility frontier for a country. Suppose the country is producing at point D. What is the opportunity cost of increasing the production of rice to 15 tons?

- A) 9 thousand bottles of wine
- B) 6 thousand bottles of wine
- C) 15 thousand bottles of wine
- D) 12 tons of rice
- E) Nothing, it is a free lunch.

Answer: A

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

18) The above figure shows the production possibility frontier for a country. Suppose the country is producing at point *E*. What would be the opportunity cost to increase the production of wine to 9 thousand bottles?

- A) 12 tons of rice
- B) 15 thousand bottles of wine
- C) 9 thousand bottles of wine
- D) 3 tons of rice
- E) Nothing, it is a free lunch.

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

19) The above figure shows the production possibility frontier for a country. Suppose the country is producing at point *D*. What would be the opportunity cost to move to point *C*?

- A) 6 thousand bottles of wine
- B) 15 thousand bottles of wine
- C) 12 tons of rice
- D) Nothing, it is a free lunch.
- E) This movement is not possible without economic growth.

Answer: E

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

20) The above figure shows the production possibility frontier for a country. Suppose the country is producing at point *A*. What would be the opportunity cost to increase the production of rice to 12 tons?

- A) 6 thousand bottles of wine
- B) 15 thousand bottles of wine
- C) 9 thousand bottles of wine
- D) 6 tons of rice
- E) Nothing, it is a free lunch.

Answer: E

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

21) The above figure shows the production possibility frontier for a country. What is the opportunity cost per ton of rice to move from point *B* to point *D*?

- A) 1,000 bottles of wine
- B) 500 bottles of wine
- C) 2 bottles of wine
- D) 1/2 of a bottle of wine
- E) None of the above answers is correct.

Answer: B

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

22) The above figure shows the production possibility frontier for a country. What is the opportunity cost per ton of rice to move from point *D* to *E*?

- A) 3,000 bottles of wine
- B) 333 bottles of wine
- C) 3 bottles of wine
- D) 1/3 of a bottle of wine
- E) None of the above answers is correct.

Answer: A

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

23) The above figure shows the production possibility frontier for a country. What is the opportunity cost to move from point *D* to point *E*?

- A) 6 thousand bottles of wine
- B) 15 thousand bottles of wine
- C) 6 tons of rice
- D) 9 thousand bottles of wine
- E) Nothing, it is a free lunch.

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

24) The above figure shows the production possibility frontier for a country. What is the opportunity cost to move from point *D* to point *B*?

- A) 12 tons of rice
- B) 15 thousand bottles of wine
- C) 6 thousand bottles of wine
- D) 9 thousand bottles of wine
- E) Nothing, it is a free lunch.

Answer: A

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

25) Moving from a point inside the production possibilities frontier to a point on the production possibilities frontier, the opportunity cost of producing more of the good on the horizontal axis

- A) increases.
- B) decreases.
- C) is constant.
- D) is 0.
- E) is infinite.

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

26) Consider a production possibility frontier with jeans on the vertical axis and shoes on the horizontal axis. As a country moves along the frontier closer to the vertical axis,

- A) the opportunity cost of producing jeans increases.
- B) the opportunity cost of producing shoes increases.
- C) there are fewer tradeoffs.
- D) inefficient production occurs.
- E) the opportunity cost of producing jeans decreases.

Answer: A

Topic: Opportunity cost

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

27) Suppose that in a *PPF* graph, wheat is on the vertical axis and jets are on the horizontal axis. Moving down along the *PPF*, the

- A) number of jets increases and the opportunity cost of jets increases.
- B) amount of wheat increases and the opportunity cost of wheat increases.
- C) number of jets increases and the opportunity cost of jets decreases.
- D) amount of wheat increases and opportunity cost of wheat decreases.
- E) opportunity cost of jets *and* wheat both increase.

Answer: A

Topic: Opportunity cost

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

28) Why is a production possibilities frontier bowed out (concave)?

- A) The bowed shape reflects constant opportunity cost.
- B) The bowed shape reflects decreasing opportunity cost.
- C) The bowed shape indicates that opportunity cost at first decreases at a decreasing rate, and then begins to decrease at an increasing rate.
- D) The bowed shape indicates that opportunity cost at first increases at a decreasing rate, and then begins to increase at an increasing rate.
- E) The bowed shape reflects increasing opportunity cost.

Answer: E

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

29) The bowed out (concave) shape of the production possibilities curve implies that as production of one good

- A) increases, society must forgo increasing amounts of another good.
- B) increases, society must forgo decreasing amounts of another good.
- C) decreases, production of other goods decreases as well.
- D) increases, production of other goods increases as well.
- E) increases, society can obtain a free lunch.

Answer: A

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

- 30) The idea of increasing opportunity cost is reflected in the
- A) bowed out shape of the production possibilities frontier.
 - B) bowed in shape of the production possibilities frontier.
 - C) linear shape of the production possibilities frontier.
 - D) positive slope of the production possibilities frontier.
 - E) fact that the *PPF* shows there are unattainable production points.

Answer: A

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

- 31) A bowed out production possibilities frontier shows

- A) that resources are equally productive in all uses.
- B) increasing opportunity cost.
- C) that resources are not equally productive in all uses.
- D) Both answers B and C are correct.
- E) Both answers A and B are correct.

Answer: D

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

- 32) The opportunity cost of a good increases as more of it is produced because

- A) there is no such thing as a free lunch.
- B) resources are not equally productive in all activities.
- C) producing more of a good requires additional resources.
- D) the number of forgone alternatives also increases.
- E) people want the good less as more is produced.

Answer: B

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

33) As an economy increasingly specializes in producing one good, the opportunity cost of that good increases. The opportunity cost increases because

- A) resources are not equally productive in all activities.
- B) what must be paid to resources increases.
- C) human wants are virtually unlimited.
- D) not all goods are equally valuable.
- E) as more of a good is produced, the profit from its production must rise.

Answer: A

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

34) As an economy produces more of one of the goods on a bowed out production possibilities frontier, what happens to the opportunity cost of producing the good?

- A) It remains constant.
- B) It decreases.
- C) It increases.
- D) It might increase, decrease, or remain constant depending on how much people value the additional units of the good.
- E) None of these depicts what happens to opportunity cost.

Answer: C

Topic: Increasing opportunity costs

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

35) When a production possibilities frontier is bowed outward, as more of one good is produced, its opportunity cost

- A) increases.
- B) decreases.
- C) remains constant.
- D) might increase, decrease, or remain constant depending on how much people value the additional units of the good.
- E) cannot be predicted.

Answer: A

Topic: Increasing opportunity costs

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

36) A bowed out *PPF* reflects which of the following ideas?

- i. Increasing opportunity cost
- ii. Resources are not equally productive in all activities.
- iii. Prices of goods increase over time.

- A) i only
- B) i and ii
- C) i and iii
- D) ii and iii
- E) i, ii, and iii

Answer: B

Topic: Increasing opportunity costs

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

37) If there is increasing opportunity cost, then when moving downward on a production possibilities frontier, the opportunity cost of the good on the horizontal axis _____ as more of the good is produced.

- A) increases and the *PPF* gets steeper
- B) increases and the *PPF* gets flatter
- C) decreases and the *PPF* gets steeper
- D) decreases and the *PPF* gets flatter
- E) does not change and the *PPF* gets steeper

Answer: A

Topic: Increasing opportunity costs

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

38) A bowed out production possibility frontier shows that the

- A) opportunity cost of a good is constant as more of the good is produced.
- B) opportunity cost of a good decreases as more of the good is produced.
- C) opportunity cost of a good increases as more of the good is produced.
- D) opportunity cost relationship is linear.
- E) opportunity cost of producing another good is negative.

Answer: C

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

39) Why does a nation experience increasing opportunity cost?

- A) As the nation moves from a production point within the *PPF* to one on the *PPF*, opportunity costs increase.
- B) As the nation moves from a production point within the *PPF* to another point also within the *PPF*, opportunity costs increase.
- C) When the amount of resources increases, the opportunity cost of all goods and services increases.
- D) Resources are not equally productive in producing different kinds of goods and services.
- E) Because the nation cannot produce at the unattainable production points that lie beyond the *PPF*.

Answer: D

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

40) The fact of increasing opportunity cost when moving on the *PPF* means that

- A) to increase the production of one product requires larger and larger sacrifices of the other good.
- B) to decrease the production of one product requires smaller and smaller sacrifices of the other good.
- C) to increase the production of one product requires smaller and smaller sacrifices of the other good.
- D) when the government forces a movement from one point on the *PPF* to another point, no production is lost.
- E) the *PPF* will be a negatively sloped straight line.

Answer: A

Topic: Increasing opportunity costs

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

41) Production possibilities frontiers usually curve out and away from the origin. The implication is

- A) that as resources are used to produce one good, fewer resources are available to produce another good.
- B) that the opportunity cost of producing a good goes down as more of that good is produced.
- C) technological change is present.
- D) that the opportunity cost of producing a good stays the same regardless of how much of that good is produced.
- E) some resources are better at producing one good while other resources are better at producing alternative goods.

Answer: E

Topic: Increasing opportunity costs

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: New

AACSB: Reflective thinking

42) If the production possibilities frontier between two goods were a straight line, then the opportunity cost of one good in terms of another would be

- A) constant.
- B) increasing.
- C) decreasing.
- D) zero.
- E) either constant, increasing, or decreasing but more information is needed to determine which.

Answer: A

Topic: Increasing opportunity costs

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

43) If the production possibilities frontier between two goods is a straight line, then the

- A) opportunity cost is not a ratio.
- B) resources are equally productive in both goods.
- C) line does not qualify as a production possibilities frontier because the unattainable production points are too close to the inefficient production points.
- D) Both answers A and C are correct.
- E) Both answers A and B are correct.

Answer: B

Topic: Increasing opportunity costs

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

44) As an economy moves down along a straight line production possibilities frontier, what happens to the opportunity cost of producing the good on the horizontal axis?

- A) It remains constant.
- B) It decreases.
- C) It increases.
- D) Above the midpoint it decreases until it equals 1 at the midpoint and then it increases.
- E) None of these depicts what happens to opportunity cost.

Answer: A

Topic: Opportunity cost

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

45) If the production possibilities frontier between bottled water and water in a jug is a straight line, which of the following statements would be correct?

- A) A large amount of unemployment must exist.
- B) Resources are equally productive at producing either product.
- C) There is no tradeoff between the two goods.
- D) There is no decrease in the production of one good when the production of the other is increased.
- E) Producing more of one good gives the economy a free lunch.

Answer: B

Topic: Opportunity cost

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

	Bread	Books
Possibility	(number)	(number)
A	0	1,000
B	100	900
C	200	700
D	300	400
E	400	0

46) The table above shows the production possibilities for an economy. Drawing a *PPF* with books on the vertical axis and bread on the horizontal axis, a movement from possibility B to possibility C to possibility D shows the opportunity cost of _____ moving down along the *PPF*.

- A) books decreasing
- B) bread decreasing
- C) bread increases
- D) books is constant
- E) books and bread are both increasing

Answer: C

Topic: Increasing opportunity costs

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

47) The table above shows the production possibilities for an economy. The opportunity cost of a loaf of bread is _____ when moving from possibility B to possibility C.

- A) 1/2 of a book
- B) 2 books
- C) 200 books
- D) 100 loaves of bread
- E) 1 loaf of bread

Answer: B

Topic: Increasing opportunity costs

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

Possibility	Capital goods	Consumption goods
A	0	60
B	2	55
C	4	45
D	6	25
E	8	0

48) The table above presents the production possibilities frontier for a nation. Using the information in the table, moving from possibility C to B means that

- A) 4 units of capital goods are given up to get 55 units of consumption goods.
- B) 2 units of capital goods are given up to get 55 additional units of consumption goods.
- C) 4 units of capital goods are given up to get 10 additional units of consumption goods.
- D) 4 units of capital goods are given up to get 45 units of consumption goods.
- E) 2 units of capital goods are given up to get 10 additional units of consumption goods.

Answer: E

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

49) The table above presents the production possibilities frontier for a nation. Using the information in the table, when moving from possibility C to D, the cost of 1 unit of a capital good in terms of the consumption goods forgone is _____ consumption goods per capital good.

- A) 25
- B) 15
- C) 20
- D) 10
- E) an undefined amount of

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

50) The table above presents the production possibilities frontier for a nation. Using the information in the table, when moving from possibility A to B to C to ultimately E, the cost of a unit of capital goods in terms of consumption goods

- A) increases.
- B) decreases.
- C) remains the same.
- D) decreases from possibility A to C, and then increases from possibility C to D.
- E) cannot be calculated.

Answer: A

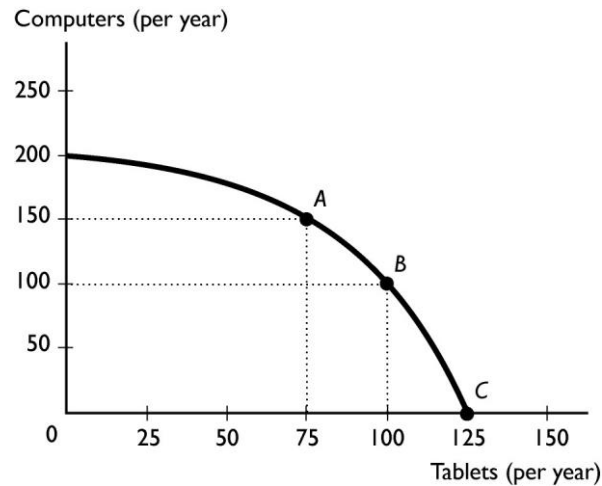
Topic: Increasing opportunity costs

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking



51) The figure above illustrates a small country's production possibilities frontier. Based on the figure, we can tell that the nation's resources are

- A) equally productive in all tasks because the slope is negative.
- B) equally productive in all tasks because the production possibilities frontier is bowed out.
- C) not equally productive in all tasks because the slope is negative.
- D) not equally productive in all tasks because the production possibilities frontier is bowed out.
- E) unlimited because the slope is negative and the *PPF* is bowed out.

Answer: D

Topic: Increasing opportunity costs

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

52) The figure above illustrates a small country's production possibilities frontier. Moving from point A to point B, the per unit opportunity cost of a tablet is _____ per tablet.

- A) 2 computers
- B) $\frac{4}{3}$ of a computer
- C) 100 computers
- D) $\frac{1}{2}$ of a computer
- E) 1 tablet

Answer: A

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

53) The figure above illustrates a small country's production possibilities frontier. Moving from point C to point B, the per unit opportunity cost of computers is _____ per computer.

- A) 4 tablets
- B) 5/4 of a tablet
- C) 4/5 of a tablet
- D) 1/4 of a tablet
- E) 1 computer

Answer: D

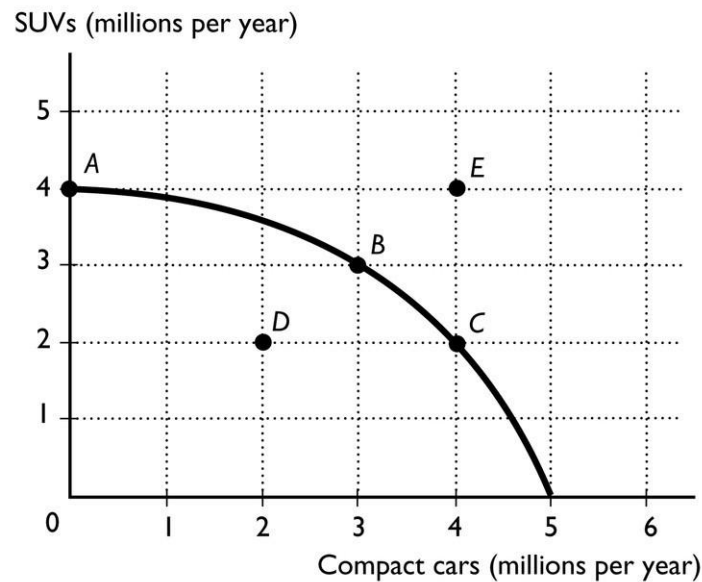
Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking



54) The figure above shows the production possibilities frontier for a country. In order for it to move from producing at point A to producing at point B, the country would need to

- A) decrease SUV production by 1 million.
- B) decrease SUV production by 3 million.
- C) decrease SUV production by 4 million.
- D) decrease compact car production by 3 million.
- E) acquire more resources and/or more advanced technology.

Answer: A

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

55) The figure above shows the production possibilities frontier for a country. In order for it to move from producing at point *A* to producing at point *B*, the country would need to incur an opportunity cost of

- A) 1 million SUVs.
- B) 3 million SUVs.
- C) 4 million SUVs.
- D) 3 million compact cars.
- E) 0 because the gain in compact cars exceeds the loss in SUVs.

Answer: A

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

56) The figure above shows the production possibilities frontier for a country. How does the opportunity cost of compact cars forgone per SUV gained moving from point *C* to point *B* compare with the movement from point *B* to point *A*?

- A) The opportunity cost of moving from point *C* to point *B* is greater than the movement from point *B* to point *A*.
- B) The opportunity cost of moving from point *C* to point *B* is the same as the movement from point *B* to point *A*.
- C) The opportunity cost of moving from point *C* to point *B* is less than the movement from point *B* to point *A*.
- D) The opportunity costs cannot be compared because the units of moving from point *C* to point *B* differ from the units of moving from point *B* to point *A*.
- E) More information is needed to determine how the two opportunity costs compare.

Answer: C

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

57) Once you find the opportunity cost of producing one unit of a good, to find the opportunity cost of producing the other good, you must

- A) take the inverse.
- B) multiply by the total amount produced of the second good.
- C) divide by the total amount produced of the second good.
- D) do nothing because the opportunity cost for the first good is the same as the opportunity cost for the second good.
- E) None of the answers is correct.

Answer: A

Topic: Opportunity cost is a ratio

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

58) While moving on the production possibilities frontier, if the opportunity cost of producing one good is $\frac{1}{2}$, the opportunity cost of producing the other good (in the same range) is

- A) $\frac{1}{2}$.
- B) $\frac{1}{4}$.
- C) 2.
- D) 4.
- E) An amount that cannot be calculated without more information.

Answer: C

Topic: Opportunity cost is a ratio

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

59) The opportunity cost of producing more of one good on a production possibilities frontier is

- A) a dollar amount.
- B) a ratio of quantities.
- C) a ratio of prices.
- D) equal to the area inside the production possibilities frontier.
- E) a theoretical concept which cannot be measured.

Answer: B

Topic: Opportunity cost is a ratio

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

60) The opportunity cost of one more slice of pizza in terms of sodas is the

- A) number of pizza slices we have to give up in order to get one extra soda.
- B) number of sodas we have to give up in order to get one extra pizza slice.
- C) total number of sodas that we have divided by the total number of pizza slices that we have.
- D) total number of pizza slices that we have divided by the total number of sodas that we have.
- E) price of a pizza slice minus the price of a soda.

Answer: B

Topic: Opportunity cost

Skill: Level 1: Definition

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

61) Moving between two points on a *PPF*, a country gains 6 automobiles and forgoes 3 trucks. The opportunity cost of 1 automobile is

- A) 3 trucks.
- B) 6 automobiles - 3 trucks.
- C) 2 trucks.
- D) 1/2 of a truck.
- E) 1 automobile.

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

62) Moving between two points on a *PPF*, a country gains 8 desktop computers and forgoes 4 laptop computers. The opportunity cost of 1 desktop computer is

- A) 4 laptops.
- B) 8 desktops.
- C) 1 desktop.
- D) 2 laptops.
- E) 1/2 of a laptop.

Answer: E

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

63) A country produces only cans of soup and ink pens. If the country produces on its bowed outward *PPF* and increases the production of cans of soup, the opportunity cost of additional

- A) cans of soup is increasing.
- B) cans of soup is decreasing.
- C) cans of soup remains unchanged.
- D) ink pens is increasing.
- E) More information is needed to determine what happens to the opportunity cost.

Answer: A

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

- 64) Moving along a country's *PPF*, a reason opportunity costs increase is that
- A) unemployment decreases as a country produces more and more of one good.
 - B) unemployment increases as a country produces more and more of one good.
 - C) technology declines as a country produces more and more of one good.
 - D) some resources are better suited for producing one good rather than the other.
 - E) technology must advance in order to produce more and more of one good.

Answer: D

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

- 65) Increasing opportunity cost exists
- A) in the real world.
 - B) as long as there is high unemployment.
 - C) only in theory but not in real life.
 - D) for a country but not for an individual.
 - E) inside the *PPF* but not on the *PPF*.

Answer: A

Topic: Increasing opportunity costs

Skill: Level 1: Definition

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

3.3 Economic Growth

- 1) Which of the following is the best definition of economic growth?
- A) The investment in capital and consumption goods by an economy
 - B) The opportunity cost of capital
 - C) The opportunity cost of consumption
 - D) Increased development of land and entrepreneurship
 - E) The sustained expansion of production possibilities

Answer: E

Topic: Economic growth

Skill: Level 1: Definition

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

- 2) The sustained expansion of production possibilities is called
- A) economic investment.
 - B) production expansion.
 - C) opportunity cost of growth.
 - D) economic growth.
 - E) production possibilities.

Answer: D

Topic: Economic growth

Skill: Level 1: Definition

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

- 3) Which of the following would most likely cause a country's production possibilities set to shift outward at every point along the frontier?
- A) a decrease in idle capital
 - B) a decrease in unemployment
 - C) a technological advance in only one sector of the economy
 - D) a general technological advance that affects all sectors of the economy
 - E) none of the above

Answer: D

Topic: Economic growth and the PPF

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: New

AACSB: Analytical thinking

4) Consider a *PPF* with consumption goods on the horizontal axis and capital goods on the vertical axis. If the country operates on its *PPF* near its _____ axis, this country _____.

- A) vertical; will experience greater economic growth
- B) vertical; will not face opportunity costs
- C) horizontal; will have a larger chance at economic growth
- D) horizontal; faces larger trade offs
- E) vertical; is operating at an inefficient point

Answer: A

Topic: Economic growth and the *PPF*

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

5) Economic growth depends upon which of the following?

- i. Increasing the quantity of labor
- ii. Lowering the prices of goods and services
- iii. Advancing technology

- A) i only
- B) ii only
- C) iii only
- D) i and iii
- E) i, ii, and iii

Answer: D

Topic: Economic growth

Skill: Level 1: Definition

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

6) Economic growth depends upon which of the following?

- i. Improving the quality of labor
- ii. Technological advancement
- iii. Increasing the amount of capital

- A) i only
- B) ii only
- C) iii only
- D) i and iii
- E) i, ii, and iii

Answer: E

Topic: Economic growth

Skill: Level 1: Definition

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

- 7) As an economy grows,
A) its *PPF* shifts outward.
B) it can eliminate scarcity.
C) the opportunity cost of production will approach 0.
D) the opportunity cost of production will increase.
E) its *PPF* does not shift; instead, the production point moves from inside the *PPF* to be closer to the *PPF*.

Answer: A

Topic: Economic growth and the *PPF*

Skill: Level 1: Definition

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

- 8) The opportunity cost of economic growth is
A) 0, because it means an expansion of production possibilities.
B) the decrease in the current production of productive factors.
C) a slower accumulation of human capital.
D) the decrease in the current production of consumption goods.
E) the increase in the nation's capital stock and/or its technology.

Answer: D

Topic: Economic growth, opportunity cost

Skill: Level 1: Definition

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

- 9) What is the opportunity cost of economic growth?
A) current period consumption goods
B) current period capital goods
C) land
D) both current period consumption and capital goods
E) both current period capital goods and land

Answer: A

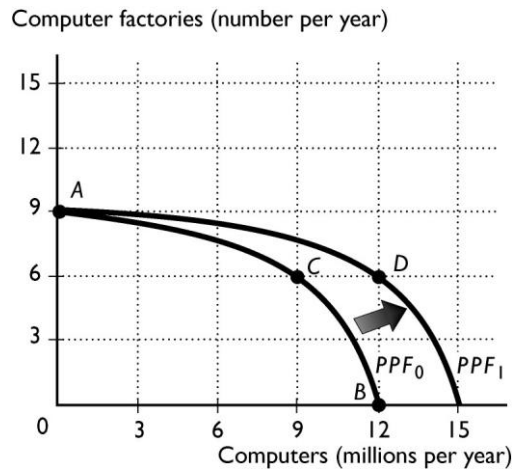
Topic: Economic growth, opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking



10) The above figure shows the *PPF* for a country that produces computers and computer factories. Which of the following would most likely shift the *PPF* from *PPF*₀ in one year to *PPF*₁ in the next?

- A) Nothing, because the *PPF* does not shift.
- B) Increase the production of computers from 9 million (at point C) to 11 million (at point B).
- C) Decrease the production of computers from 11 million (at point B) to 9 million (at point C) and build 9 new computer factories.
- D) Increase consumption of both computers and computer factories.
- E) Decrease production of both computers and computer factories by moving into the interior of the *PPF*.

Answer: C

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

11) The above figure shows the *PPF* for a country that produces computers and computer factories. The nation's production possibilities frontier is *PPF*₀. At which of the following production points would the economy grow most rapidly?

- A) Point A
- B) Point B
- C) Point C
- D) It makes no difference among the three points because they are all production efficient.
- E) More information is needed to answer the question.

Answer: A

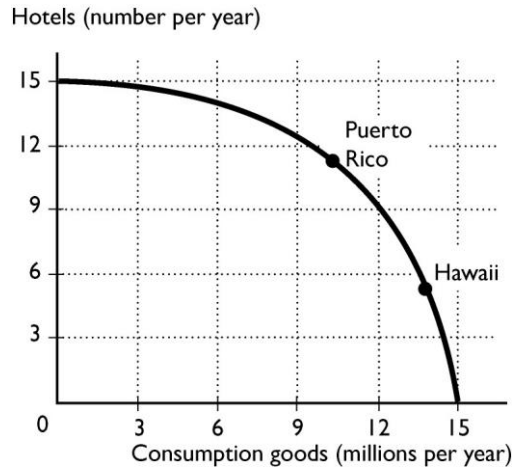
Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking



- 12) Suppose Puerto Rico and Hawaii currently have the same production possibilities so that the above figure is the *PPF* for hotels and consumption goods in the two areas. Hotels are a capital good that, once built, will help produce still more consumption goods. If Puerto Rico produces more hotels than Hawaii,
- A) Hawaii's *PPF* will shift outward further than Puerto Rico's *PPF*.
 - B) Hawaii's *PPF* will shift inward.
 - C) Puerto Rico's *PPF* will not shift.
 - D) Puerto Rico's and Hawaii's *PPF* will shift outward by the same amount.
 - E) Puerto Rico's *PPF* will shift outward further than Hawaii's *PPF*.

Answer: E

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

- 13) Suppose Puerto Rico and Hawaii currently have the same production possibilities so that the above figure is the *PPF* for hotels and consumption goods in the two areas. Hotels are a capital good that, once built, will help produce still more consumption goods. According to the figure, which island will have more rapid economic growth?

- A) Hawaii
- B) Both Hawaii and Puerto Rico will grow at the same speed.
- C) Puerto Rico
- D) Neither Hawaii nor Puerto Rico will grow.
- E) More than one of the above answers is correct.

Answer: C

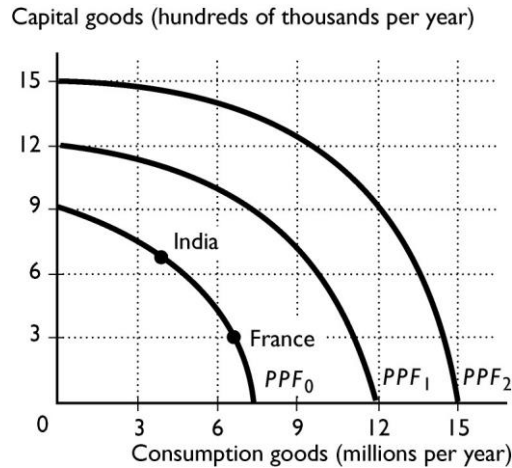
Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking



14) Suppose India and France have the same *PPF*, shown in the figure above. Based on their current production points, which is India's most likely future *PPF*?

- A) *PPF*₂
- B) *PPF*₁
- C) *PPF*₀
- D) either *PPF*₀ or *PPF*₁
- E) None of the above because economic growth will not happen in India.

Answer: A

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

15) Suppose India and France have the same *PPF*, shown in the figure above. Based on their current production points, which is France's most likely future *PPF*?

- A) *PPF*₂
- B) *PPF*₁
- C) *PPF*₀
- D) either *PPF*₀ or *PPF*₁
- E) None of the above because economic growth will not happen in India.

Answer: B

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

16) Suppose India and France have the same *PPF*, shown in the figure above. Based on their current production points, India's most likely future *PPF* is _____ and France's most likely future *PPF* is _____.

- A) PPF_1 ; PPF_1
- B) PPF_2 ; PPF_2
- C) PPF_0 ; PPF_0
- D) PPF_2 ; PPF_1
- E) PPF_1 ; PPF_2

Answer: D

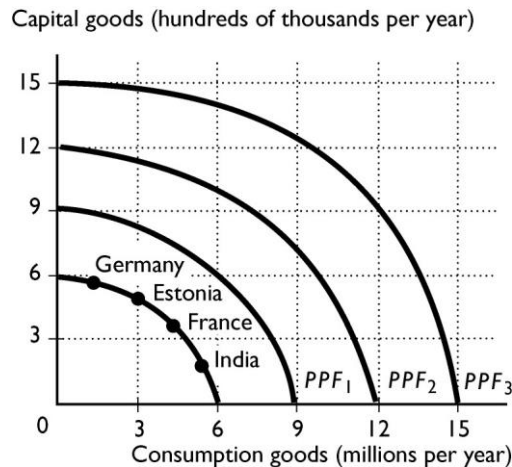
Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking



17) Suppose that Germany, France, Estonia, and India all have the same production possibilities, illustrated in the figure above. Based on the production points in the figure, which country is most likely to expand its *PPF* to PPF_3 ?

- A) India
- B) Germany
- C) Estonia
- D) France and Germany equally
- E) France

Answer: B

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

18) Suppose that Germany, France, Estonia, and India all have the same production possibilities, illustrated in the figure above. Based on the production points in the figure, which country is most likely to expand its *PPF* to *PPF*₁?

- A) France and Germany equally
- B) India
- C) Estonia
- D) France
- E) Germany

Answer: B

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

19) Suppose that Germany, France, Estonia, and India all have the same production possibilities, illustrated in the figure above. Based on the production points in the figure, India is most likely to expand its *PPF* to

- A) *PPF*₃ or *PPF*₂.
- B) *PPF*₃.
- C) *PPF*₁.
- D) *PPF*₁. or *PPF*₂.
- E) *PPF*₂.

Answer: C

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

20) Suppose that Germany, France, Estonia, and India all have the same production possibilities, illustrated in the figure above. Based on the production points in the figure, Germany is most likely to expand its *PPF* to

- A) *PPF*₃ or *PPF*₂.
- B) *PPF*₃.
- C) *PPF*₁.
- D) *PPF*₁. or *PPF*₂.
- E) *PPF*₂.

Answer: B

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

- 21) To increase its economic growth, a nation should
- A) limit the number of people in college because they produce nothing.
 - B) encourage spending on goods and services.
 - C) encourage education because that increases the quality of labor.
 - D) increase current consumption.
 - E) eliminate expenditure on capital goods.

Answer: C

Topic: Economic growth

Skill: Level 2: Using definitions

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

- 22) Other things equal, if Mexico devotes more resources to train its population than Spain,
- A) Mexico will be able to eliminate opportunity cost faster than Spain.
 - B) Mexico will be able to eliminate scarcity faster than Spain.
 - C) Spain will grow faster than Mexico.
 - D) Mexico will have more current consumption than Spain.
 - E) Mexico will grow faster than Spain.

Answer: E

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

- 23) If a nation devotes a larger share of its current production to consumption goods, then
- A) its economic growth will slow down.
 - B) its *PPF* will shift outward.
 - C) its *PPF* will shift inward.
 - D) some productive factors will become unemployed.
 - E) it must produce at a point within its *PPF*.

Answer: A

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

24) Which of the following statements is correct?

- i. As the economy grows, the opportunity costs of economic growth decrease.
- ii. Economic growth has no opportunity cost.
- iii. The opportunity cost of economic growth is current consumption forgone.

- A) i only
- B) ii only
- C) iii only
- D) i and iii
- E) i and ii

Answer: C

Topic: Economic growth

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

25) When a country's production possibilities frontier shifts outward over time, the country is experiencing

- A) no opportunity cost.
- B) economic growth.
- C) higher unemployment of resources.
- D) a decrease in unemployment of resources.
- E) an end to opportunity cost.

Answer: B

Topic: Economic growth

Skill: Level 1: Definition

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

26) The opportunity cost of economic growth is _____ and the benefit of economic growth is _____.

- A) increased current consumption; increased future consumption
- B) increased current consumption; decreased future consumption
- C) decreased current consumption; increased future consumption
- D) decreased current consumption; decreased future consumption
- E) nothing; increased future consumption

Answer: C

Topic: Economic growth

Skill: Level 1: Definition

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

3.4 Specialization and Trade

- 1) If Wendy can produce more of all goods than Tommy in an hour, then
- A) Wendy has an absolute advantage in all goods.
 - B) Wendy does not need to trade with Tommy in order to achieve the gains from trade.
 - C) Wendy has a comparative advantage in all goods.
 - D) Tommy has an absolute advantage in all goods.
 - E) Only Tommy but not Wendy can benefit from trade between the two of them.

Answer: A

Topic: Absolute advantage

Skill: Level 1: Definition

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

- 2) Mac can bake more cookies than Monica per hour. It must be true that
- A) Monica has an absolute advantage in cookie baking.
 - B) Mac has an absolute advantage in baking cookies.
 - C) Mac has a comparative advantage in baking cookies.
 - D) Monica has a comparative advantage in baking cookies.
 - E) Mac cannot benefit by trade between the two of them.

Answer: B

Topic: Absolute advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

- 3) When Mik has an absolute advantage in the production of two goods over Tommy, Mik
- A) is less productive than Tommy.
 - B) is better off if he does not engage in specialization and trade with Tommy.
 - C) is more productive in producing both goods than Tommy.
 - D) always has a comparative advantage over Tommy in the production of both goods.
 - E) cannot gain from trade with Tommy.

Answer: C

Topic: Absolute advantage

Skill: Level 1: Definition

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

4) If John can produce 10 chairs or 20 lamps during a week while Mary can produce 12 chairs or 22 lamps in the same time, who has the absolute advantage in producing each good?

- A) Mary in producing both goods
- B) John in producing both goods
- C) Mary in producing chairs, John in producing lamps
- D) John in producing chairs, Mary in producing lamps
- E) Both Mary and John in both goods

Answer: A

Topic: Absolute advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

5) If Toni has an absolute advantage in both sewing and ironing when compared to Tom, then

- A) they might benefit from trading, but we need more information to determine in which task they should specialize.
- B) neither Toni nor Tom can benefit from trading with each other.
- C) Toni should specialize in sewing, and Tom should specialize in ironing.
- D) Toni cannot benefit from trading with Tom, but Tom can benefit from trading with Toni.
- E) Tom cannot benefit from trading with Toni, but Toni can benefit from trading with Tom.

Answer: A

Topic: Absolute advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

6) If a country has

- A) an absolute advantage in producing a good, it definitely also has a comparative advantage in producing that good.
- B) an absolute advantage in producing a good, it might or might not have a comparative advantage in producing that good.
- C) a comparative advantage in production of a good, it must also have an absolute advantage in producing that good.
- D) an absolute advantage in producing a good, it definitely will not have a comparative advantage in producing that good.
- E) None of the above answers is correct.

Answer: B

Topic: Absolute advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

7) Hank requires 1 hour to cut the grass and 3 hours to clean the house. His sister Holly requires 1 hour to cut the grass and 4 hours to clean the house. Which of the following statements is true?

- A) Hank has a comparative advantage in both cutting the grass and cleaning the house.
- B) Hank and Holly both have a comparative advantage in cutting the grass.
- C) Hank has a lower opportunity cost of cutting the grass.
- D) Hank has an absolute advantage in both cutting the grass and cleaning the house.
- E) Holly has a comparative advantage in cutting the grass.

Answer: E

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

8) The United States can use all its resources to produce 250 DVDs or 500 shoes. China can use all of its resources to produce 30 DVDs or 300 shoes. The opportunity cost of producing a DVD in the United States is

- A) 2 shoes.
- B) 1/2 of a shoe.
- C) 20 shoes.
- D) 500 shoes.
- E) 1 DVD.

Answer: A

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

Mary's production in 1 day		Mark's production in 1 day	
Dresses	8	Dresses	24
Jackets	12	Jackets	16

9) In the table above, how many jackets must Mary forgo for every dress she makes?

- A) 12 jackets
- B) 3/4 of a jacket
- C) 2/3 of a jacket
- D) 1 1/2 jackets
- E) 8 jackets

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

10) In the table above, how many jackets must Mark forgo for every dress he makes?

- A) 1 jacket
- B) 16 jackets
- C) 2/3 of a jacket
- D) 1 1/2 jackets
- E) 24 dresses

Answer: C

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

11) In the above table, for Mary the opportunity cost of producing a dress is _____, and the opportunity cost for Mark of producing a dress is _____.

- A) 1 1/2 jackets; 2/3 of a jacket
- B) 1 1/2 jackets; 2 1/2 jackets
- C) 1 1/4 jackets; 1/2 of a jacket
- D) 1 jacket; 1 jacket
- E) 1 dress; 1 dress

Answer: A

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

12) A country has a comparative advantage in the production of a good if it can

- A) produce more of the good than another country.
- B) produce more of the good most efficiently.
- C) produce the good on and remain on its production possibilities frontier.
- D) tradeoff producing the good for another good.
- E) produce the good at the lowest opportunity cost.

Answer: E

Topic: Comparative advantage

Skill: Level 1: Definition

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

13) Having a comparative advantage means a nation can

- A) benefit from trade.
- B) produce at a higher opportunity cost.
- C) produce more of the good.
- D) produce without incurring an opportunity cost.
- E) produce the good at a point beyond its *PPF*.

Answer: A

Topic: Comparative advantage

Skill: Level 1: Definition

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

14) When a person has a comparative advantage in producing a good or service, the person has

- A) a higher opportunity cost in producing that product than someone else.
- B) a constant opportunity cost in producing that product.
- C) a decreasing opportunity cost in producing that product.
- D) a lower opportunity cost in producing that product than someone else.
- E) an increasing marginal benefit in producing the good.

Answer: D

Topic: Comparative advantage

Skill: Level 1: Definition

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

15) Which of the following best describes comparative advantage?

- A) being able to produce more output than any other country
- B) using the fewest number of resources to produce a given amount of output
- C) having the largest number of resources compared to other countries
- D) forgoing the fewest units of one product to produce a unit of another product
- E) It is the same as absolute advantage.

Answer: D

Topic: Comparative advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

- 16) Which of the following is correct about comparative advantage?
- A) Some countries will have a comparative advantage in everything.
 - B) Having a comparative advantage without an absolute advantage is impossible.
 - C) A comparative advantage in a good means that the country can produce more of the good than any other country.
 - D) A country has a comparative advantage in the production of a good if it can produce the good at lower opportunity cost than any other country.
 - E) None of the above answers is correct.

Answer: D

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

- 17) John can make pizza at a lower opportunity cost than Allen, but Allen can make more pizzas per day than John. Therefore,
- A) John cannot benefit from trade with Allen.
 - B) Allen cannot benefit from trade with John.
 - C) John has a comparative advantage in pizza.
 - D) John has an absolute advantage in pizza.
 - E) Allen has a comparative advantage in pizza.

Answer: C

Topic: Comparative advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

- 18) Alice and Gene work in the mailroom, sorting and delivering mail. In order for them to benefit from specialization and trade, Alice must
- A) be able to both sort and deliver faster than Gene.
 - B) be equally productive in both sorting and delivering.
 - C) have a comparative advantage in both sorting and delivering.
 - D) have a comparative advantage in one task and Gene must have a comparative advantage in the other task.
 - E) be equally productive as Gene in both sorting and delivering.

Answer: D

Topic: Comparative advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

19) When one person's opportunity cost of producing a good is lower than another person's opportunity cost of producing the same good, it is called

- A) an absolute advantage.
- B) a comparative advantage.
- C) specialization.
- D) production possibilities.
- E) a trade off.

Answer: B

Topic: Comparative advantage

Skill: Level 1: Definition

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

20) For country Gamma, the opportunity cost for producing 1 computer is 10 tons of steel. For country Beta, the opportunity cost for producing 1 computer is 6 tons of steel. Which country has the comparative advantage in the production of steel?

- A) Gamma
- B) Beta
- C) Both have the comparative advantage in the production of steel.
- D) Neither country has the comparative advantage in the production of steel.
- E) More information is needed to determine which of the two nations has the comparative advantage.

Answer: A

Topic: Comparative advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

21) For country North, the opportunity cost incurred when 3 tractors are produced is 21 watches. For country South, the opportunity cost incurred when 5 tractors are produced is 100 watches. Which country has the comparative advantage in the production of tractors?

- A) North
- B) South
- C) Both have the comparative advantage in the production of tractors.
- D) Neither country has the comparative advantage in the production of tractors.
- E) More information is needed about which country has the comparative advantage in the production of watches.

Answer: A

Topic: Comparative advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

22) If Country A can produce an extra plane by giving up two boats, and Country B can produce an extra plane by giving up three boats, then

- A) Country A has a comparative advantage over Country B in the production of planes.
- B) Country B has a comparative advantage over Country A in the production of planes.
- C) the two countries have no incentive to trade with one another.
- D) Country A would like to trade with B, but B cannot gain by trading with A.
- E) Country A has an absolute advantage in producing planes and a comparative advantage in producing boats.

Answer: A

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

23) David takes 10 minutes to process a customer, and 20 minutes to stock the shelves. Danny takes 15 minutes to process a customer, and 15 minutes to stock the shelves. Which of the following statements is true?

- A) David has an absolute advantage in performing both tasks.
- B) Danny has an absolute advantage in performing both tasks.
- C) David has a comparative advantage in processing customers but not in stocking shelves.
- D) Danny has a comparative advantage in processing customers but not in stocking shelves.
- E) Danny has a comparative advantage in processing customers and in stocking shelves.

Answer: C

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

24) Rika's opportunity cost of producing 100 t-shirts is 50 jackets. Jeff's opportunity cost of producing 75 t-shirts is 25 jackets. Who should specialize in jackets?

- A) Rika
- B) Jeff
- C) neither
- D) both
- E) More information is needed about their production possibilities frontiers to determine who should specialize in jackets.

Answer: A

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

	Potatoes (pounds)	or	Tomatoes (pounds)
Huey	12	or	8
Steve	6	or	2

25) Huey and Steve can grow potatoes or tomatoes. The table above shows the pounds of potatoes and tomatoes Huey and Steve can grow in a week. Based on the table, Huey's opportunity cost of producing one pound of tomatoes is

- A) 1.5 pounds of potatoes.
- B) 0.66 pound of potatoes.
- C) 0, because he has an absolute advantage in it.
- D) 0, because he has a comparative advantage in it.
- E) 1.0 pound of potatoes.

Answer: A

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

26) Huey and Steve can grow potatoes or tomatoes. The table above shows the pounds of potatoes and tomatoes Huey and Steve can grow in a week. Based on the table, Steve has a comparative advantage in

- A) both potatoes and tomatoes.
- B) neither potatoes nor tomatoes.
- C) potatoes.
- D) tomatoes.
- E) More information is needed about Huey's comparative advantage in order to determine Steve's comparative advantage.

Answer: C

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

27) Huey and Steve can grow potatoes or tomatoes. The table above shows the pounds of potatoes and tomatoes Huey and Steve can grow in a week. Based on the table, which of the following statements is correct?

- A) Steve has an absolute advantage in both potatoes and tomatoes.
- B) Steve has a comparative advantage in both potatoes and tomatoes.
- C) Steve has an absolute advantage in potatoes only.
- D) Huey has an absolute advantage in potatoes only.
- E) Huey has an absolute advantage in both potatoes and tomatoes.

Answer: E

Topic: Absolute advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

- 28) If Tom can wax a car in fewer hours than Jerry, then Tom definitely has
- A) a comparative advantage in car waxing.
 - B) an absolute advantage in car waxing.
 - C) both a comparative and an absolute advantage in car waxing.
 - D) neither a comparative nor an absolute advantage in car waxing.
 - E) an undetermined advantage because we do not know how long it takes Tom and Jerry to wash a car.

Answer: B

Topic: Comparative advantage versus absolute advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: New

AACSB: Analytical thinking

Jack's production possibilities				Jill's production possibilities			
Production point	Food (pounds)		Clothing (pounds)	Production point	Food (pounds)		Clothing (pounds)
A	24	and	0	A	45	and	0
B	16	and	4	B	30	and	5
C	8	and	8	C	15	and	10
D	0	and	12	D	0	and	15

- 29) In the table above, Jack's opportunity cost for 1 pound of food is _____ and his opportunity cost for 1 pound of clothing is _____.

- A) 1 pound of clothing; 4 pounds of food
- B) 1/2 of a pound of clothing; 2 pounds of food
- C) 1/3 of a pound of clothing; 3 pounds of food
- D) 2 pounds of clothing; 2 pounds of food
- E) 1 pound of food; 1 pound of clothing

Answer: B

Topic: Opportunity cost

Skill: Level 4: Applying models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

- 30) In the table above, Jill's opportunity cost for 1 pound of food is _____ and her opportunity cost for 1 pound of clothing is _____.

- A) 1 pound of clothing; 4 pounds of food
- B) 1/2 of a pound of clothing; 2 pounds of food
- C) 1/3 of a pound of clothing; 3 pounds of food
- D) 2 pounds of clothing; 2 pounds of food
- E) 1 pound of food; 1 pound of clothing

Answer: C

Topic: Opportunity cost

Skill: Level 4: Applying models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

31) In the table above, Jack's comparative advantage is producing _____ and Jill's comparative advantage is producing _____.

- A) clothing; food
- B) clothing and food; nothing
- C) nothing; clothing and food
- D) food; clothing
- E) clothing; clothing

Answer: A

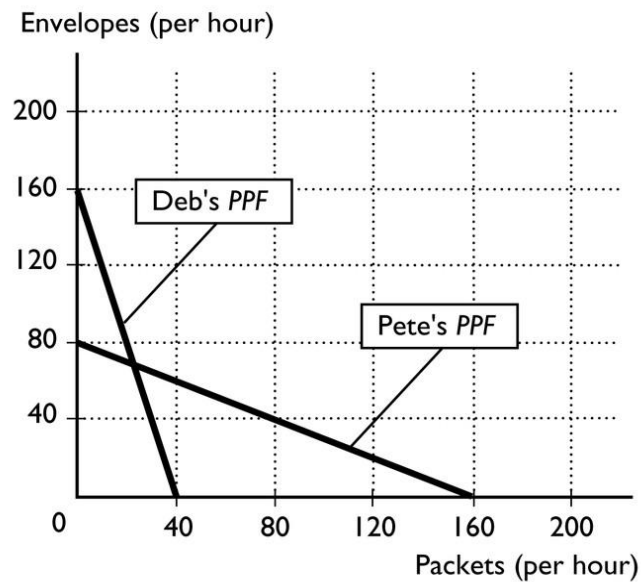
Topic: Comparative advantage

Skill: Level 4: Applying models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking



32) Deb and Pete have volunteered to help their favorite charity mail out fundraiser information. The figure above shows their production possibilities frontiers for assembling packets and stuffing envelopes. If Deb spends all her time assembling packets, how many can she assemble?

- A) 32
- B) 40
- C) 64
- D) 160
- E) 22

Answer: B

Topic: Production possibilities frontier

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

33) Deb and Pete have volunteered to help their favorite charity mail out fundraiser information. The figure above shows their production possibilities frontiers for assembling packets and stuffing envelopes. What is Deb's opportunity cost of assembling 1 packet?

- A) 160 envelopes
- B) 40 envelopes
- C) 4 envelopes
- D) 1/4 of an envelope
- E) 4 packets

Answer: C

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

34) Deb and Pete have volunteered to help their favorite charity mail out fundraiser information. The figure above shows their production possibilities frontiers for assembling packets and stuffing envelopes. Which of the following statements is correct?

- A) Deb has a comparative advantage in assembling packets.
- B) Pete has an absolute advantage in both assembling packets and stuffing envelopes.
- C) Deb has a comparative advantage in stuffing envelopes.
- D) Deb has an absolute advantage in both assembling packets and stuffing envelopes.
- E) Deb has a comparative advantage in both assembling packets and stuffing envelopes.

Answer: C

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

35) Deb and Pete have volunteered to help their favorite charity mail out fundraiser information. The figure above shows their production possibilities frontiers for assembling packets and stuffing envelopes. If Deb and Pete specialize and trade, how many packets will be assembled?

- A) 40
- B) more than 40 and less than 80
- C) 80
- D) 160
- E) more than 80 and less than 160

Answer: D

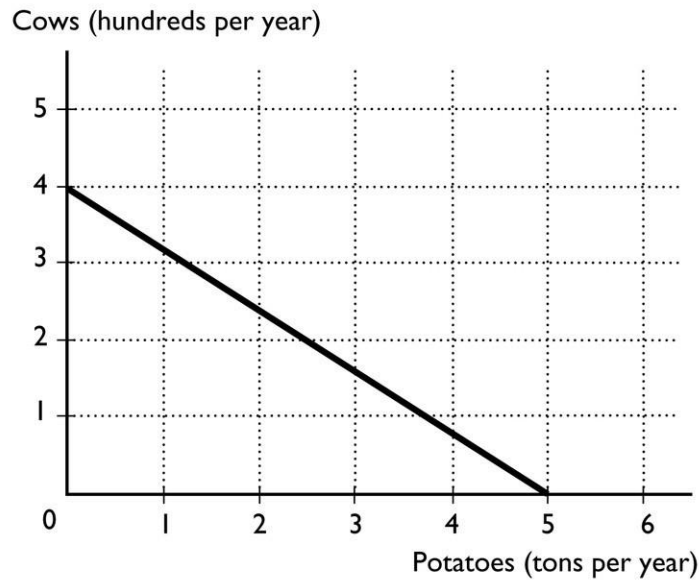
Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking



36) Gabriel operates a ranch in Idaho where he raises cattle and grows potatoes. The figure above illustrates his production possibilities frontier. What is Gabriel's opportunity cost of growing another ton of potatoes?

- A) 400 cows
- B) 80 cows
- C) 100 cows
- D) 0 cows
- E) 1 ton of potatoes

Answer: B

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

37) Gabriel operates a ranch in Idaho where he raises cattle and grows potatoes. The figure above illustrates his production possibilities frontier. What is Gabriel's opportunity cost of raising another 100 cows?

- A) 1.25 tons of potatoes
- B) 5.0 tons of potatoes
- C) 3.0 tons of potatoes
- D) 1.0 ton of potatoes
- E) 100 cows

Answer: A

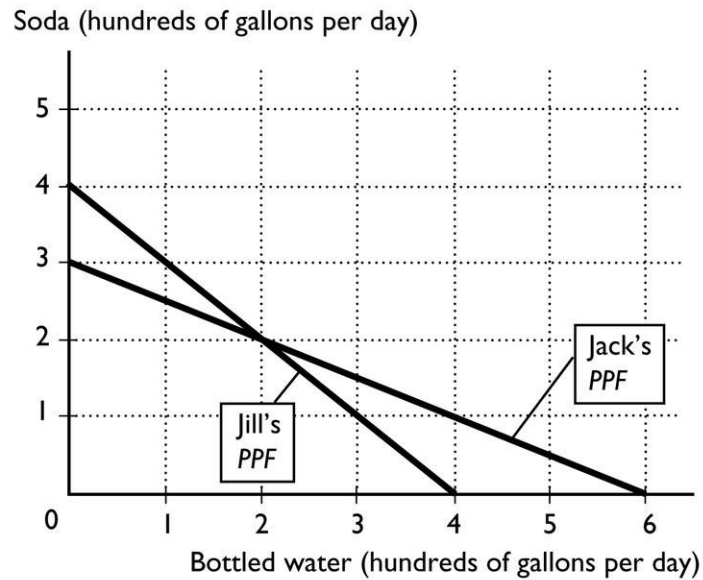
Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking



38) In the above figure, Jack's opportunity cost of producing 1 gallon of soda is _____ of bottled water.

- A) 1 gallon
- B) 1/2 of a gallon
- C) 6 gallons
- D) 1/4 of a gallon
- E) 2 gallons

Answer: E

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

39) In the above figure, Jack's opportunity cost of producing 1 gallon of bottled water is _____ of soda.

- A) 2 gallons
- B) 1/2 of a gallon
- C) 6 gallons
- D) 1/4 of a gallon
- E) 1 gallon

Answer: B

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

40) In the above figure, Jill's opportunity cost of producing 1 gallon of soda is _____ of bottled water.

- A) 2 gallons
- B) 1/2 of a gallon
- C) 4 gallons
- D) 1 gallon
- E) 1/4 of a gallon

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

41) In the above figure, Jill's opportunity cost of producing 1 gallon of bottled water is _____ of soda.

- A) 2 gallons
- B) 1/2 of a gallon
- C) 4 gallons
- D) 1 gallon
- E) 1/4 of a gallon

Answer: D

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

42) Using the figure above, if Jack and Jill specialize and gain from trade, then

- A) Jack produces equal amounts of gallons of water and bottled water.
- B) Jack specializes in the production of bottled water.
- C) Jack and Jill produce beyond their *PPF*.
- D) Jack specializes in the production of soda.
- E) Jack specializes on the production of soda and water.

Answer: B

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

43) On a typical acre of land, Iowa can produce either 300 pounds of beef or 100 pounds of soybeans in a year. On a typical acre of land, Nebraska can produce 150 pounds of beef or 200 pounds of soybeans. Which of the following is correct?

- A) Nebraska should produce soybeans because its opportunity cost of soybeans is lower.
- B) Nebraska should produce soybeans because its opportunity cost of soybeans is higher.
- C) Iowa should produce soybeans because its opportunity cost of soybeans is lower.
- D) Iowa should produce soybeans because its opportunity cost of soybeans is higher.
- E) Nebraska and Iowa should divide each acre evenly between soybean and beef production.

Answer: A

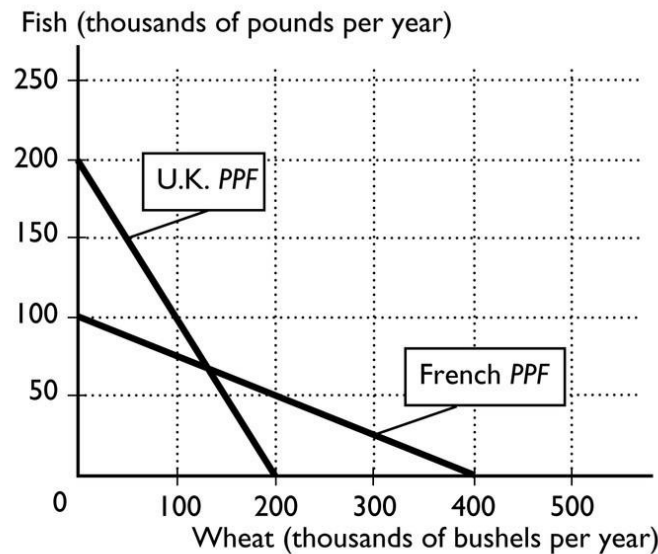
Topic: Achieving the gains from trade

Skill: Level 5: Critical thinking

Section: Checkpoint 3.4

Status: New

AACSB: Analytical thinking



44) The figure above shows the production possibilities frontiers for the United Kingdom and France. What is the opportunity cost of one bushel of wheat in France?

- A) 1/4 of a pound of fish
- B) 4 pounds of fish
- C) 1 pound of fish
- D) 100 pounds of fish
- E) 2 pounds of fish

Answer: A

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

45) The figure above shows the production possibilities frontiers for the United Kingdom and France. What is the opportunity cost of one bushel of wheat for the United Kingdom?

- A) 1/4 of a pound of fish
- B) 1/2 of a pound of fish
- C) 1 pound of fish
- D) 200 pounds of fish
- E) 2 pounds of fish

Answer: C

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

46) The figure above shows the production possibilities frontiers for the United Kingdom and France. If the United Kingdom and France specialize and engage in trade, the United Kingdom will produce _____ and France will produce _____.

- A) wheat; wheat
- B) wheat; fish
- C) fish; wheat
- D) fish; fish
- E) both wheat and fish; both wheat and fish

Answer: C

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

47) The figure above shows the production possibilities frontiers for the United Kingdom and France. If the United Kingdom and France specialize and engage in trade, the United Kingdom will export _____ and France will export _____.

- A) wheat; wheat
- B) wheat; fish
- C) fish; wheat
- D) fish; fish
- E) nothing; nothing

Answer: C

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

48) What is gained when people engage in specialization and trade?

- A) Specialization and trade allow people to consume outside their individual production possibilities frontiers.
- B) Specialization and trade allow people to consume inside their production possibilities frontiers.
- C) Specialization and trade allow people to consume at a point on their production possibilities frontiers.
- D) Specialization and trade allow people to produce outside their individual production possibilities frontiers.
- E) There are no gains from specialization and trade.

Answer: A

Topic: Achieving the gains from trade

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

49) Gains from trade

- A) occur when one party to the trade has an absolute advantage in both goods.
- B) result in being able to consume beyond the trading individuals' production possibilities frontiers.
- C) occur when people do not specialize.
- D) occur when opportunity costs are equal.
- E) always benefit one party but not the other party of any trade.

Answer: B

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

50) Consider the United States' production of soy beans and running shoes. If the United States has an absolute advantage in the production of both goods compared to China,

- A) both countries can gain from trade.
- B) only the United States can gain from trade.
- C) only China can gain from trade.
- D) each country will be able to produce at a point beyond its PPF.
- E) only the United States will be able to operate beyond its PPF.

Answer: A

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

51) To achieve gains from trade, a country

- A) needs to have an absolute advantage in the production of all goods.
- B) specializes in the producing a good in which it has a lower opportunity cost.
- C) must produce at a point beyond its *PPF*.
- D) should produce at the midpoint of its *PPF*.
- E) needs to have an absolute advantage in the production of at least one good.

Answer: B

Topic: Achieving the gains from trade

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

52) Specialization and trade

- A) does not benefit anyone.
- B) allows nations to produce inside their individual production possibilities frontier.
- C) allows nations to consume combinations of products that are outside their individual production possibilities frontier.
- D) shifts the production possibilities frontier inward.
- E) shifts the production possibilities frontier outward.

Answer: C

Topic: Achieving the gains from trade

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

53) The United States is one of the richest nations in the world,

- A) so it does not need to trade with poor nations in order to achieve any gains from trade.
- B) so it might not have a comparative advantage in producing any goods.
- C) but it can still benefit from specialization and trade.
- D) so it must have a comparative advantage in the production of all goods.
- E) so it must have an absolute advantage in the production of all goods.

Answer: C

Topic: Achieving the gains from trade

Skill: Level 4: Applying models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

54) Specialization and trade make a country better off because with trade, the country can consume at a point

- A) outside its production possibilities frontier.
- B) inside its production possibilities frontier.
- C) on its production possibilities frontier.
- D) on its trading partner's production possibilities frontier.
- E) inside its trading partner's production possibilities frontier.

Answer: A

Topic: Achieving the gains from trade

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

55) By specializing and trading, a country is able to

- A) obtain the absolute advantage in the goods it produces.
- B) consume but not to produce combinations of goods that lie beyond its production possibilities frontier.
- C) produce but not to consume combinations of goods that lie beyond its production possibilities frontier.
- D) *both* produce and consume combinations of goods that lie beyond its production possibilities frontier.
- E) *neither* produce nor consume combinations of goods that lie beyond its production possibilities frontier.

Answer: B

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

56) With no international trade, a country _____ consume at a point outside of its *PPF*; with international trade, a country _____ consume at a point outside of its *PPF*.

- A) cannot; can
- B) can; cannot
- C) can; can
- D) cannot; cannot
- E) None of the above answers is correct because the presence or absence of international trade has nothing to do with where a country consumes in comparison to its *PPF*.

Answer: A

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

- 57) In terms of a nation's production possibilities frontier, what impact does international trade have?
- A) International trade shifts the nation's production possibilities frontier outward.
 - B) International trade shifts the nation's production possibilities frontier inward.
 - C) International trade allows the nation to consume at a point outside its production possibilities frontier.
 - D) International trade shifts the production possibilities frontier outward for the goods that are exported and inward for the goods that are imported.
 - E) International trade shifts the production possibilities frontier outward for the goods that are imported and inward for the goods that are exported.

Answer: C

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

- 58) The gains from trade include:
- i. lower prices from competition
 - ii. greater output from specialization
 - iii. greater variety of goods and services available
- A) i and iii
 - B) ii and iii
 - C) i and ii
 - D) i, ii, and iii
 - E) ii only

Answer: D

Topic: Achieving the gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: New

AACSB: Reflective thinking

- 59) If a nation has an absolute advantage in producing a good, then it
- A) will have a comparative advantage in producing that good.
 - B) will have no need to trade with other nations.
 - C) will always specialize in that good.
 - D) might or might not have a comparative advantage in producing that good.
 - E) will not have a comparative advantage in producing that good.

Answer: D

Topic: Comparative advantage versus absolute advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

60) In one hour John can produce 20 loaves of bread or 8 cakes. In one hour Phyllis can produce 30 loaves of bread or 15 cakes. Which of the following statements is true?

- A) Phyllis has a comparative advantage in producing bread.
- B) John has a comparative advantage in producing cakes.
- C) Phyllis has an absolute advantage in both goods.
- D) John has an absolute advantage in both goods.
- E) Phyllis has a comparative advantage in producing both cakes and bread.

Answer: C

Topic: Absolute advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

61) "Comparative advantage" is defined as a situation in which one person can produce

- A) more of all goods than another person.
- B) more of a good than another person.
- C) a good for a lower dollar cost than another person.
- D) a good for a lower opportunity cost than another person.
- E) all goods for lower opportunity costs than another person.

Answer: D

Topic: Comparative advantage

Skill: Level 1: Definition

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

62) Scott and Cindy both produce only pizza and tacos. In one hour, Scott can produce 20 pizzas or 40 tacos. In one hour, Cindy can produce 30 pizzas or 40 tacos. Scott's opportunity cost of producing 1 taco is

- A) 1/2 of a pizza.
- B) 1 pizza.
- C) 2 pizzas.
- D) 20 pizzas.
- E) 2 tacos.

Answer: A

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

63) Scott and Cindy both produce only pizza and tacos. In one hour, Scott can produce 20 pizzas or 40 tacos. In one hour, Cindy can produce 30 pizzas or 40 tacos. Cindy's opportunity cost of producing 1 taco is

- A) $\frac{3}{4}$ of a pizza.
- B) 1 pizza.
- C) 30 pizzas.
- D) 40 pizzas.
- E) $1\frac{1}{3}$ tacos.

Answer: A

Topic: Opportunity cost

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

64) Scott and Cindy both produce only pizza and tacos. In one hour, Scott can produce 20 pizzas or 40 tacos. In one hour, Cindy can produce 30 pizzas or 40 tacos. Based on these data,

- A) Cindy has a comparative advantage at producing tacos.
- B) Scott has a comparative advantage at producing tacos.
- C) Cindy and Scott have the same comparative advantage in producing tacos.
- D) neither Cindy nor Scott has a comparative advantage in producing tacos.
- E) Cindy and Scott have the same comparative advantage in producing pizzas.

Answer: B

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

65) In one hour John can produce 20 loaves of bread or 16 cakes. In one hour Phyllis can produce 30 loaves of bread or 15 cakes. Which of the following statements is true?

- A) Phyllis has a comparative advantage in producing bread.
- B) John has a comparative advantage in producing cakes.
- C) Phyllis has an absolute advantage in both goods.
- D) John has an absolute advantage in both goods.
- E) Phyllis has a comparative advantage in producing both cakes and bread.

Answer: B

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

66) Comparative advantage is directly related to which of the following concepts?

- A) productivity
- B) efficiency
- C) opportunity cost
- D) competition
- E) fairness

Answer: C

Topic: Comparative advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: New

AACSB: Reflective thinking

67) If workers in Mexico produce fewer goods and services per hour than workers in the United States in all areas of production, then

- A) the United States will benefit from trade with Mexico but Mexico will not.
- B) Mexico will benefit from trade with the United States but the United States will not.
- C) neither Mexico nor the United States will benefit from trade with the other.
- D) both the United States and Mexico will benefit from trade with the other.
- E) it is unknown whether either country can benefit from trade with the other.

Answer: D

Topic: Achieving the gains from trade

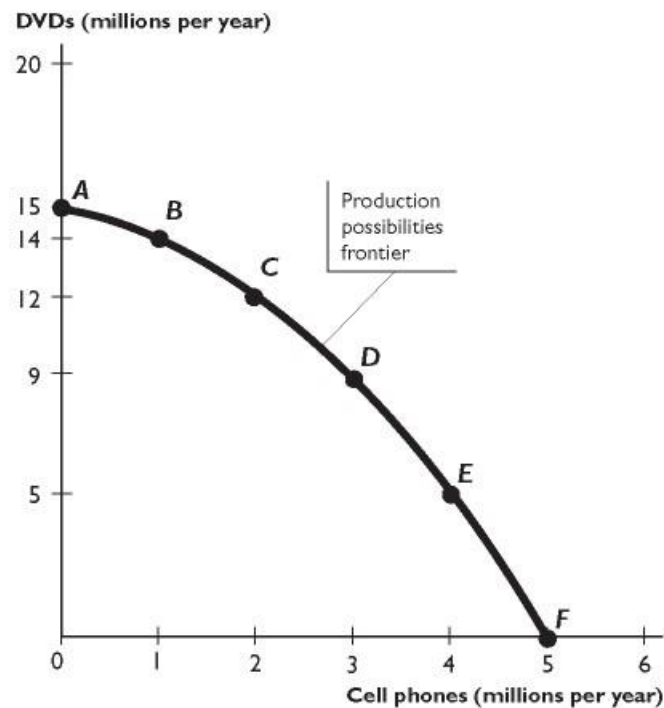
Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: New

AACSB: Reflective thinking

3.5 Chapter Figures



Cell phones (millions)	0	1	2	3	4	5
DVDs (millions)	15	14	12	9	5	0
Possibility	A	B	C	D	E	F

1) The figure above shows a production possibilities frontier. In the figure, which of the following combinations of the two goods cannot be produced with the current resources and technology?

- A) 2 million cell phones and 13 million DVDs
- B) 4 million cell phones and 4 million DVDs
- C) 1 million cell phones and 14 million DVDs
- D) 3 million cell phones and 5 million DVDs
- E) 5 million cell phones and no DVDs

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

2) The figure above shows a production possibilities frontier. In the figure, which of the following combinations of the two goods are efficient?

- A) 2 million cell phones and 13 million DVDs
- B) 5 million cell phones and 15 million DVDs
- C) No cell phones and 15 million DVDs
- D) 4 million cell phones and 4 million DVDs
- E) None of these combinations is efficient.

Answer: C

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

3) The figure above shows a production possibilities frontier. In the figure, the economy faces a tradeoff when _____ cell phones and _____ DVDs. are produced.

- A) 3 million; 9 million
- B) 2 million; 9 million
- C) 3 million; 8 million
- D) 4.5 million; no
- E) 5 million; 15 million

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

4) The figure above shows a production possibilities frontier. In the figure, when the economy moves from point E to point D, what is the opportunity cost of a DVD?

- A) 0.25 cell phones
- B) 0.5 cell phones
- C) 1 cell phone
- D) 4 cell phones
- E) zero

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

5) The figure above shows a production possibilities frontier. In the figure, when the economy moves from point D to point C, the opportunity cost of producing one more DVD _____, and when it moves from point C to D, the opportunity cost of producing one more cell phone _____.

- A) increases; increases
- B) increases; decreases
- C) decreases; decreases
- D) decreases; increases
- E) increases; remains the same

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

6) The figure above shows a production possibilities frontier. In the figure, when the economy moves from point C to point B, what is the opportunity cost of a DVD?

- A) 0.5 cell phones
- B) 2 cell phones
- C) 0.5 million cell phones
- D) 2 million cell phones
- E) zero

Answer: A

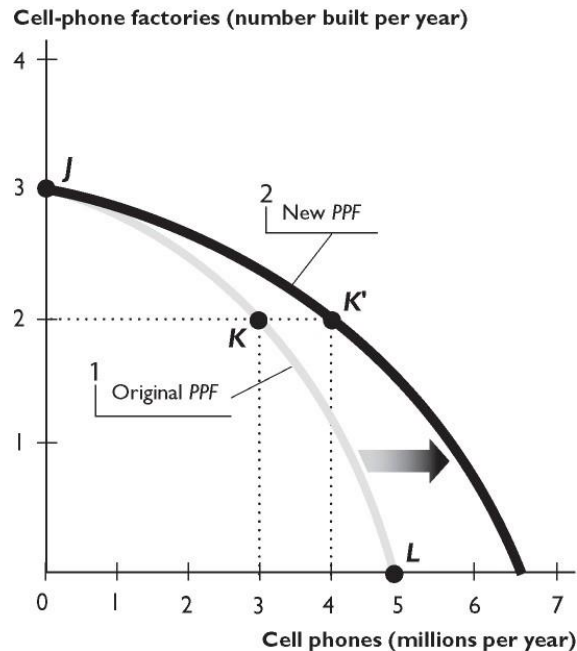
Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking



7) The figure above shows how the *PPF* for cell phones and new cell-phone factories can expand. In the figure, if the economy produced 4 million cell phones using the resources efficiently, the *PPF* would

- A) expand, but not as far as shown in the figure.
- B) not expand.
- C) expand farther than shown in the figure.
- D) expand along the vertical axis and not along the horizontal axis.
- E) expand evenly along both axes.

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

8) The figure above shows how the *PPF* for cell phones and new cell-phone factories can expand. In the figure, if the economy chose the point on this year's *PPF* that is above point K, the next year's *PPF* would

- A) shift outward along the horizontal axis farther than the new *PPF* shown in the figure.
- B) shift outward along the horizontal axis, but not as far as the new *PPF* shown in the figure.
- C) shift outward along the vertical axis, not along the horizontal axis.
- D) shift inward along the horizontal axis.
- E) shift inward along the vertical axis.

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking

9) The figure above shows how the *PPF* for cell phones and new cell-phone factories can expand. In the figure, if the economy chose the point on this year's *PPF* that is below point K, the next year's *PPF* would

- A) shift outward along the horizontal axis farther than the new *PPF* shown in the figure.
- B) shift outward along the horizontal axis, but not as far as the new *PPF* shown in the figure.
- C) shift outward along the vertical axis, not along the horizontal axis.
- D) shift inward along the horizontal axis.
- E) shift inward along the vertical axis.

Answer: B

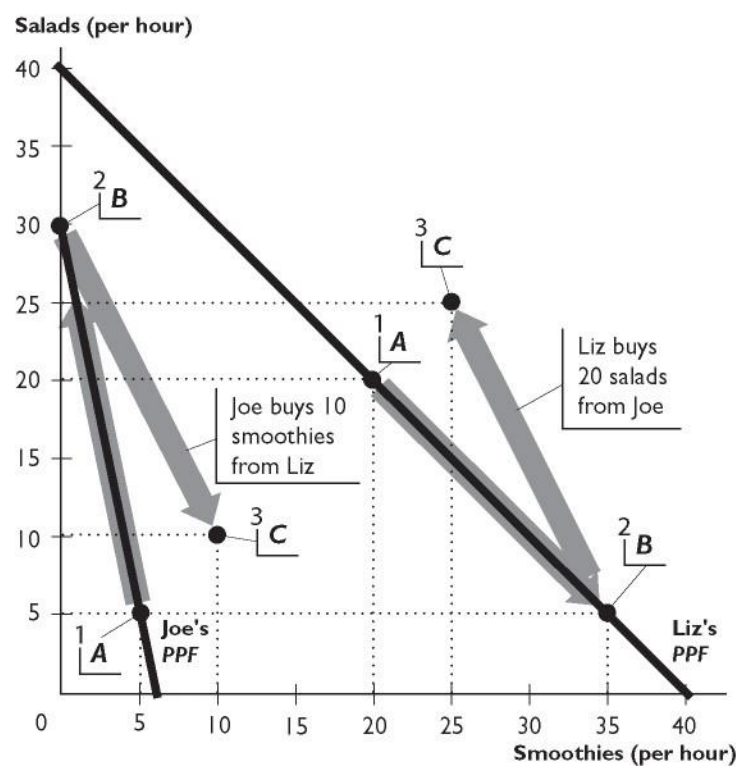
Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.3

Status: Old

AACSB: Analytical thinking



The figure above shows Liz's and Joe's production possibilities for Salads and Smoothies.

10) Liz has a comparative advantage in _____ and an absolute advantage in _____.

- A) smoothies only; both goods
- B) smoothies only; smoothies only
- C) both goods; both goods
- D) salads only; both goods
- E) salads only; salads only

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

- 11) Liz has a comparative advantage in _____ because _____.
- A) smoothies; her opportunity cost of producing smoothies is lower than Joe's
 - B) salads; her opportunity cost of producing salads is lower than Joe's
 - C) smoothies; she can produce more smoothies per hour than Joe can
 - D) salads; she can produce more salads per hour than Joe can
 - E) both goods; she can produce more of both goods per hour than Joe can

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

- 12) Given the information in the figure above, Liz _____ benefit from trade with Joe because _____.
- A) can; each of them has a comparative advantage in one of the goods
 - B) can; each of them has an absolute advantage in one of the goods
 - C) cannot; she has an absolute advantage in both goods
 - D) cannot; she has a comparative advantage in both goods
 - E) can; Joe is more productive in producing one of the goods

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

- 13) Given the information in the figure above, Joe can benefit from trade as far as the price at which he buys Liz's smoothies is
- A) below 5 salads per smoothie.
 - B) not higher than 2 salads per smoothie.
 - C) not lower than 2 salads per smoothie.
 - D) not lower than 1 salad per smoothie.
 - E) not higher than 4 salads per smoothie.

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

14) Using the figure above, suppose with no trade Liz and Joe each produce at point A on their respective *PPFs*. Then, Liz suggests that they specialize and trade. She would produce only smoothies and Joe would produce only salads. Then she would sell 10 smoothies to Joe at a price of 2.5 salads per smoothie. In this scenario,

- A) Liz gains 10 smoothies and 5 salads, and Joe gains 5 smoothies.
- B) Liz gains 5 smoothies, and Joe gains 10 smoothies.
- C) Liz gains 10 smoothies, and Joe loses 5 smoothies.
- D) Liz gains 5 smoothies and 5 salads, and Joe loses 5 salads.
- E) None of the individuals gains from trade.

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

15) Using the figure above, suppose with no trade Liz and Joe each produce at point A on their respective *PPFs*. Then, Joe suggests that they specialize and trade. He would produce only salads and Liz would produce only smoothies. Then, Joe says, he would buy 16 smoothies from Liz at a price of 1.5 salads per smoothie. Liz should

- A) accept Joe's offer since she will gain 4 smoothies and 4 salads.
- B) accept Joe's offer as she will be as well off as with no trade.
- C) not accept Joe's offer as the price he offers is too low for her to gain from trade.
- D) not accept Joe's offer since she would lose 2 smoothies and 2 salads.
- E) accept Joe's offer since she will gain 4 salads.

Answer: A

Topic: The economic problem

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

3.6 Integrative Questions

- 1) As technology advances,
A) all opportunity costs decrease.
B) the *PPF* shifts outward.
C) a country moves toward the midpoint along its *PPF* and can produce more of both goods.
D) all opportunity costs increase.
E) the *PPF* shifts inward because unemployment occurs.

Answer: B

Topic: Integrative

Skill: Level 3: Using models

Section: Integrative

Status: Old

AACSB: Analytical thinking

- 2) If a country is operating at a point of production efficiency,
A) it enjoys a free lunch when increasing production.
B) it produces on its production possibilities frontier.
C) it must specialize in the production of a good.
D) it operates on its trade line.
E) it cannot be producing at its point of comparative advantage.

Answer: B

Topic: Integrative

Skill: Level 2: Using definitions

Section: Integrative

Status: Old

AACSB: Reflective thinking

- 3) Relative to Al, Joe has _____ if Joe can produce a good at a lower opportunity cost than Al.
A) a comparative advantage
B) more production efficiency
C) a comparative benefit
D) a marginal benefit
E) a free lunch

Answer: A

Topic: Integrative

Skill: Level 3: Using models

Section: Integrative

Status: Old

AACSB: Reflective thinking

4) Suppose that after specializing according to comparative advantage, a country is trading with another nation that also specializes according to *its* comparative advantage. Which of the following statements are true for the first country?

- i. It enjoys gains from trade.
- ii. It must have an absolute advantage in the production of the good it produces.
- iii. It is producing at a point beyond its *PPF*.

- A) i only
- B) i and ii
- C) i and iii
- D) ii and iii
- E) i, ii, and iii

Answer: A

Topic: Integrative

Skill: Level 3: Using models

Section: Integrative

Status: Old

AACSB: Reflective thinking

Anaconda				Bear			
Production point	Corn (tons)		Shoes (pairs)	Production point	Corn (tons)		Shoes (pairs)
A	0	and	700	A	0	and	1,000
B	1	and	650	B	1	and	900
C	2	and	550	C	2	and	700
D	3	and	350	D	3	and	400
E	4	and	0	E	4	and	0

5) The table above gives the production possibilities frontier for two countries, Anaconda and Bear. This table shows that

- A) when Anaconda and Bear specialize and trade, Anaconda should specialize in the production of shoes.
- B) when Anaconda and Bear specialize and trade, Anaconda should produce at its production point *E*.
- C) Anaconda has an absolute advantage in the production of corn and shoes.
- D) Bear can consume no more than 2 bushels of corn and 700 pairs of shoes.
- E) Bear is unable to gain from trade with Anaconda.

Answer: B

Topic: Integrative

Skill: Level 3: Using models

Section: Integrative

Status: Old

AACSB: Analytical thinking

6) The table above gives the production possibilities frontier for two countries, Anaconda and Bear. The table shows that

- A) Bear achieves production efficiency *only* at its production point A.
- B) Anaconda achieves production efficiency *only* at its production point A.
- C) Anaconda has a comparative advantage in the production of corn.
- D) Bear has an absolute advantage in the production of both goods.
- E) Both answers A and B are correct.

Answer: C

Topic: Integrative

Skill: Level 3: Using models

Section: Integrative

Status: Old

AACSB: Analytical thinking

7) The table above gives the production possibilities frontier for two countries, Anaconda and Bear. The opportunity cost of moving from production point B to production point C for Anaconda equals _____ and for Bear equals _____.

- A) 1 ton of corn; 1 ton of corn
- B) 650 pairs of shoes; 900 pairs of shoes
- C) 550 pairs of shoes; 700 pairs of shoes
- D) 100 pairs of shoes; 200 pairs of shoes
- E) 50 pairs of shoes; 100 pairs of shoes

Answer: D

Topic: Integrative

Skill: Level 3: Using models

Section: Integrative

Status: Old

AACSB: Analytical thinking

8) The table above gives the production possibilities frontier for two countries, Anaconda and Bear. The opportunity cost of moving from _____ is greater for _____.

- A) point A to point B; Anaconda
- B) point B to point A; Bear
- C) point D to point E; Bear
- D) point E to point D; Bear
- E) any point to any other point; Bear

Answer: C

Topic: Integrative

Skill: Level 3: Using models

Section: Integrative

Status: Old

AACSB: Analytical thinking

3.7 Essay: Production Possibilities

1) What does the vertical intercept of a production possibilities frontier represent?

Answer: The vertical intercept is the maximum amount that can be produced if all available resources are dedicated to the production of the good or service measured on the vertical axis.

Topic: Production possibilities frontier

Skill: Level 2: Using definitions

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

2) What economic concepts are represented in the production possibilities model?

Answer: There are a large number of economic concepts illustrated by the production possibilities frontier:

- Scarcity of resources: The production possibilities frontier is a frontier between attainable and unattainable combinations.
- Opportunity cost: The negative slope of the production possibilities frontier indicates that in order to get more of one good, you must produce less of the other (tradeoff).
- Increasing opportunity cost: The bowed out production possibilities frontier represents the changing opportunity costs when resources are specialized.
- Production efficiency: Points on the production possibilities frontier efficiently use all resources while points below the production possibilities frontier represent unemployed or misallocated resources and the possibility of a free lunch.

Topic: Production possibilities frontier

Skill: Level 5: Critical thinking

Section: Checkpoint 3.1

Status: Old

AACSB: Written and oral communication

3) How can a combination of goods be unattainable?

Answer: A combination of goods can be unattainable if producing that combination requires more resources and technology than are available.

Topic: Unattainable points

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

4) A production point beyond the production possibilities frontier represents what?

Answer: A production point beyond the production possibilities frontier is an unattainable combination of products.

Topic: Unattainable points

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

5) "If Mexico is currently operating at a point beyond its production possibilities frontier, then there are unemployed or misallocated resources in Mexico." Is this statement true or false? Briefly explain your answer.

Answer: The statement is false. It is false on two counts. First, production points beyond the production possibilities frontier are unattainable, so it is not possible for Mexico to be producing at such a point. Second, it is points *within* the production possibilities frontier that have unemployed or misallocated resources.

Topic: Unattainable points

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Written and oral communication

6) "If Mexico is currently operating at a point inside its production possibilities frontier, then there are unemployed or misallocated resources in Mexico." Is this statement true or false? Briefly explain your answer.

Answer: The statement is true. Points within the production possibilities frontier are attainable, so it is possible for Mexico to be producing at a point within its frontier. At points within the production possibilities frontier, there are unemployed or misallocated resources.

Topic: Attainable points, unemployment

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

7) Are all points inside the production possibilities frontier unattainable?

Answer: No, all points within the production possibilities frontier are attainable, though there are unemployed resources at these points.

Topic: Attainable points, unemployment

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Reflective thinking

8) In the movie *Cast Away*, Tom Hanks plays a FedEx efficiency expert stranded on a deserted island. While on the island, he divides his time between catching fish, gathering coconuts, painting, and building a raft. Suppose that these were Mr. Hanks' only activities. Did he face an opportunity cost from pursuing any of these activities? Why or why not?

Answer: Yes, Mr. Hanks faces an opportunity cost from all of these endeavors. If he decides to use his time catching fish, he couldn't gather coconuts, paint, or build a raft. Whatever he would have been doing, not opting to catch fish is his opportunity cost of catching fish. Similarly, time spent on building his raft means less time painting, or fewer coconuts for breakfast, or fewer fish for dinner. Tradeoffs such as these are a feature of any economy that is operating on its production possibilities frontier and cannot be avoided.

Topic: Tradeoffs

Skill: Level 3: Using models

Section: Checkpoint 3.1

Status: Old

AACSB: Written and oral communication

9) What does it mean when a "free lunch" is available? Relate your answer to the production possibilities frontier.

Answer: A free lunch means that there is no tradeoff, that is, the production of one good or service can be increased without decreasing the production of another good or service and thereby giving up some of the other good. A free lunch occurs when the economy is producing at a point within the production possibilities frontier because at these points some resource is unemployed. By utilizing the unemployed resource, more goods or services can be produced without giving up any other goods or services.

Topic: Free lunches

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Written and oral communication

10) Describe the differences between tradeoffs and free lunches in terms of a *PPF*.

Answer: A tradeoff is a constraint or limit that forces giving up one thing in exchange for something else. When resources are fully employed, a country operates on its *PPF*. Any movement from one point to another point along the *PPF* requires the country to make a tradeoff between the two goods because one good is given up to get some other good. A free lunch occurs when some resources are not being used or not being used in their most productive way. When a country operates inside its *PPF* and moves toward its *PPF* choosing a different combination of goods, the country enjoys a free lunch. It does not face a tradeoff.

Topic: Tradeoffs and free lunches

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Written and oral communication

11) On a production possibilities frontier diagram, where are production points that have tradeoffs? Where are production points with a free lunch?

Answer: A tradeoff is a situation in which a limit forces one thing to be given up in exchange for something else. Any point on the production possibilities frontier itself is a production point with a tradeoff. Why? Moving along the production possibilities frontier means that more of one good can be obtained only at the (opportunity) cost of giving up some other good, which means that there is a tradeoff. A free lunch is the absence of a tradeoff, that is, when the production of a good or service can be increased without decreasing the production of another good or service. A free lunch occurs at any point within the production possibilities frontier. At these points, resources are being used inefficiently. By utilizing the resource efficiently, more goods or services can be produced without giving up any other goods or services.

Topic: Tradeoffs and free lunches

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Written and oral communication

12) Explain why a movement from a point inside a production possibilities frontier to the production possibilities frontier is described as a free lunch and a movement along a production possibilities frontier is described as a tradeoff.

Answer: The key point to answer this question is the fact that producing more of a good requires more resources. Hence, if all resources are employed efficiently, as is the case when producing on the production possibilities frontier, producing more of one good means reallocating resources away from the production of another good; there is a tradeoff between the two goods. In other words, to produce more of one good, the production of another must be given up. If, however, resources are used inefficiently, as is the case when producing inside the production possibilities frontier, then the production of a good can be increased by using the resources efficiently; hence no tradeoff is required and the additional goods are a free lunch.

Topic: Tradeoffs and free lunches

Skill: Level 4: Applying models

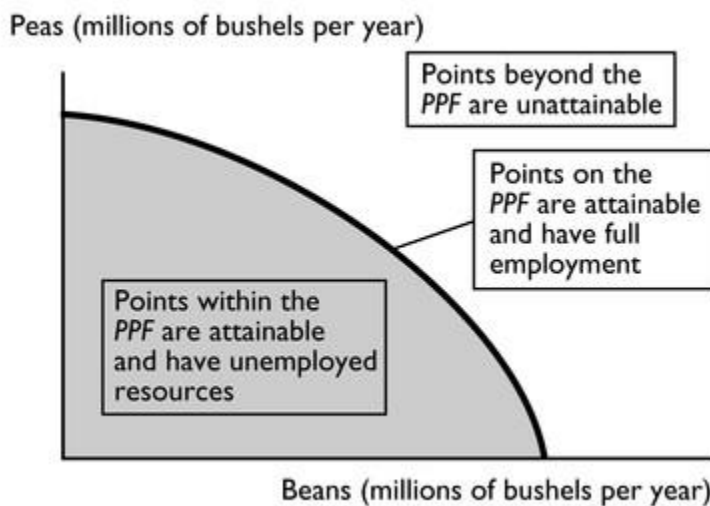
Section: Checkpoint 3.1

Status: Old

AACSB: Written and oral communication

13) Draw a production possibilities frontier between beans and peas. Label the unattainable points, the attainable points with fully employed resources, and the attainable points with unemployed resources.

Answer:



The production possibilities frontier, with the points labeled, is above. Any point beyond the production possibilities frontier is unattainable. Any point on the production possibilities frontier is attainable and resources are fully employed. Finally, any point within the production possibilities frontier is attainable and has unemployed resources.

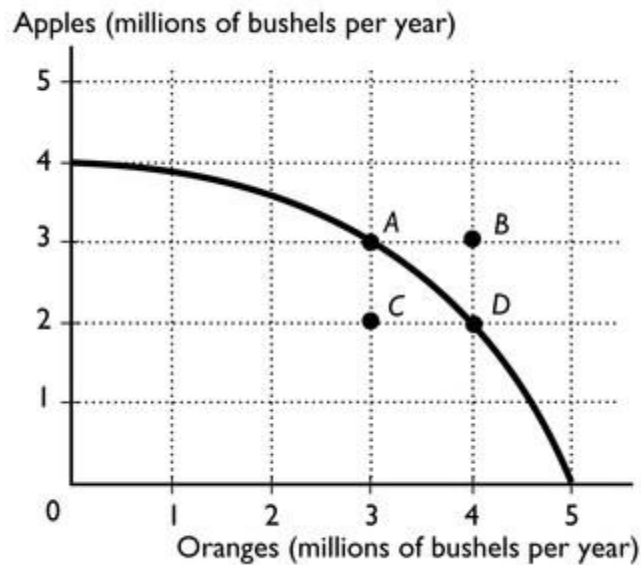
Topic: Production possibilities frontier

Skill: Level 1: Definition

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking



14) The figure above shows a nation's production possibilities frontier for apples and oranges.

- What combination of goods is represented by point *A*?
- What combination of goods is represented by point *B*?
- Which point represents an unattainable combination of goods?
- The movement from point *C* to point *D* results in a free lunch. What is the free lunch?

Answer:

- 3 million bushels of apples and 3 million bushels of oranges
- 3 million bushels of apples and 4 million bushels of oranges
- Point *B* is an unattainable point.
- The movement from point *C* to point *D* results in an increase of 1 million bushels of oranges with no decrease in apples. Therefore the 1 million bushels of oranges are a free lunch.

Topic: Production possibilities frontier

Skill: Level 1: Definition

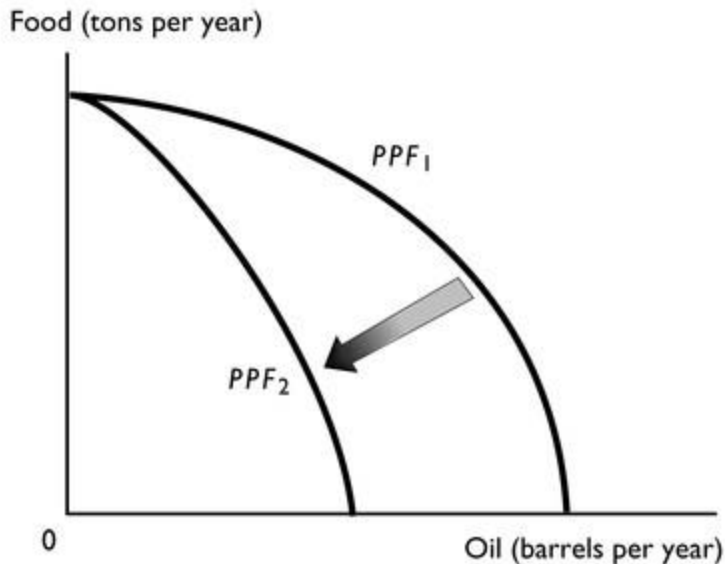
Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

15) Before the first Gulf War, Kuwait had the capacity to produce a certain amount of oil from its oil wells. After the war, it found that capacity greatly diminished because the oil wells were on fire. Draw Kuwait's *PPF* before and after the war, assuming that the only two goods produced are oil and food. Further assume that setting the oil wells on fire did not affect Kuwait's ability to produce food. Explain why the *PPF* before the war is different from the *PPF* after the war.

Answer:



When a *PPF* is drawn, we draw it for a fixed amount of natural resources, along with fixed amounts of the other factors of production such as labor, capital, etc. Fire reduced Kuwait's natural resources temporarily, so the *PPF* after the war shifted inwards. However, because setting the oil wells on fire did not affect Kuwait's ability to produce food, the maximum amount of food production, the point where the *PPF* intersects the vertical axis, did not change.

Topic: Production possibilities frontier

Skill: Level 4: Applying models

Section: Checkpoint 3.1

Status: Old

AACSB: Analytical thinking

3.8 Essay: Opportunity Cost

1) Moving on a bowed out *PPF*, what happens to the opportunity cost of its production as a nation specializes more in one product?

Answer: The bowed out *PPF* indicates that as the amount of the good produced increases, the good's opportunity cost increases.

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Reflective thinking

2) Why is the production possibilities frontier bowed out?

Answer: The production possibilities frontier is bowed out because resources are not equally productive in all uses. The resources used to produce robots are different from the resources used to produce pizzas. Thus, as more of one good is produced, say robots, less productive resources must be used to increase the number of robots produced. Hence the opportunity cost of the additional robots increases, which gives the production possibilities frontier a bowed out shape.

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Written and oral communication

3) Why does the production possibilities frontier have a bowed out shape rather than being a straight line?

Answer: The fact that as the production of one good or service increases, its opportunity cost increases means that the production possibilities frontier will be bowed out. Only if the opportunity cost remained constant as the production of a good increases would the production possibilities frontier be a straight line.

Topic: Increasing opportunity costs

Skill: Level 4: Applying models

Section: Checkpoint 3.2

Status: Old

AACSB: Written and oral communication

4) When economists state that the opportunity cost of a product increases as more of it is produced, what do they mean? For instance, what is the opportunity cost? And, where in a *PPF* diagram does this statement apply and where does it not apply?

Answer: In general, the opportunity cost of increasing the production of one good or service is the forgone production of another good or service. The statement that the opportunity cost of a product increases as more of it is produced applies to production points on the production possibilities frontier. On the production possibilities frontier, resources are fully employed. Hence to increase the production of one good or service, resources must be switched away from the production of another good or service and hence the production of that good or service decreases. And, as more of the first good or service is produced, the opportunity cost of an additional unit becomes larger, so that the opportunity cost increases. However, the assertion that the opportunity cost of a product increases as more of it is produced does not apply to production points within the production possibilities frontier. Production points within the production possibilities frontier are points at which there are resources being used inefficiently. From a production point with inefficiently used resources, to increase the production of a good, some of the resources can be used efficiently and so there is no opportunity cost in terms of forgone other products. Therefore from a point within the production possibilities frontier, the opportunity cost of increasing the production of a good is zero.

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Written and oral communication

5) What is the relationship between the bowed out shape of the production possibilities frontier and the increasing opportunity cost of a good as more of it is produced?

Answer: The production possibilities frontier is bowed out because the opportunity cost of a good increases as more of it is produced. As the first unit of the good measured along the horizontal axis is produced, resources that are extremely well suited for its production can be used. Because of the suitability, not many resources need to be devoted to its production, so the opportunity cost-the decrease in the production of the good measured along the vertical axis-is not large. Hence at this location along the production possibilities frontier, the slope of the production possibilities frontier is shallow. But, as more of the product is produced, resources that are not as well suited must be devoted to its production. Consider one of the last units of this good, just before the production possibilities frontier intersects the horizontal axis. By the time the nation produces this much of the product, to produce one more unit means that resources that are extremely poorly suited in its manufacture must be used. Because these resources are not well suited, a lot of them must be used and, because a lot of them must be used, the opportunity cost in terms of the forgone other good is large. With the large decrease in the production of the good along the vertical axis, the slope of the production possibilities frontier at this location is steep. So, the production possibilities frontier goes from having a shallow slope to a steep one, that is, the production possibilities frontier is bowed outward.

Topic: Increasing opportunity costs

Skill: Level 2: Using definitions

Section: Checkpoint 3.2

Status: Old

AACSB: Written and oral communication

Production point	Milk (gallons)		Shirts (numbers)
A	0	and	100
B	2	and	90
C	4	and	70
D	6	and	40
E	8	and	0

6) A (very, very small) country produces milk and shirts and its production possibilities frontier is in the table above.

- The nation is currently producing at point *B*. What is the opportunity cost of two additional gallons of milk? At point *C*? At point *D*? What do your results show?
- Suppose the nation is initially producing 4 gallons of milk and 40 shirts. What is the opportunity cost of 2 additional gallons of milk? Explain your answer.

Answer:

- At point *B*, the opportunity cost of 2 additional gallons of milk is 20 shirts. At point *C*, the opportunity cost of 2 additional gallons of milk is 30 shirts. At point *D*, the opportunity cost of 2 additional gallons of milk is 40 shirts. The opportunity cost of 2 additional gallons of milk increases as more milk is produced.
- Producing 4 gallons of milk and 40 shirts means that the nation is producing at a point within the interior of its production possibilities frontier. Hence the opportunity cost of producing an additional 2 gallons of milk is 0. The opportunity cost is 0 because at a production point in the interior of the production possibilities frontier there are unemployed resources. These unemployed resources can be put to work producing the additional 2 gallons of milk. Because they were not producing anything previously, there is no decrease in the production of shirts and hence no opportunity cost.

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

Production point	Pages typed		Web pages created
A	0	and	4
B	40	and	3
C	70	and	2
D	90	and	1
E	100	and	0

7) Jean can either type her term paper or create Web pages during the limited time she has available. The table above shows her *PPF*.

- Can Jean type 90 pages and create 2 Web pages?
- Use the above numbers to calculate the opportunity cost of a typed page as she increases her time typing and decreases time creating a Web page.

Answer:

- Jean cannot type 90 pages and create 2 Web pages because, as row *D* shows, that combination is beyond her *PPF*.
- The opportunity cost is the ratio of the decrease in the number of Web pages divided by the increase in the number of typed pages. The following table gives the opportunity cost for typed pages.

Movement from	Increase in typed pages	Decrease in Web pages	Opportunity cost
<i>A to B</i>	40	1	1/40
<i>B to C</i>	30	1	1/30
<i>C to D</i>	20	1	1/20
<i>D to E</i>	10	1	1/10

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

Production point	Wheat (bushels)		Soybeans (bushels)
<i>A</i>	1,500	and	0
<i>B</i>	1,000	and	2,250
<i>C</i>	500	and	3,500
<i>D</i>	0	and	4,000

8) The table above gives the production possibilities frontier for a nation that produces wheat and soybeans. Use the information in that table to complete the table below, which has in it the opportunity costs of moving from one production point to another. Do not forget to note the units of the opportunity costs.

Movement from	Opportunity cost	Movement from	Opportunity cost
<i>A to B</i>		<i>D to C</i>	
<i>B to C</i>		<i>C to B</i>	
<i>C to D</i>		<i>B to A</i>	

Answer:

Movement from	Opportunity cost (bushels of soybeans per bushel of wheat)	Movement from	Opportunity cost (bushels of wheat per bushel of soybeans)
<i>A to B</i>	0.22	<i>D to C</i>	1.00
<i>B to C</i>	0.40	<i>C to B</i>	2.50
<i>C to D</i>	1.00	<i>B to A</i>	4.50

The table above gives the opportunity costs. The units of the opportunity costs are in the column headings.

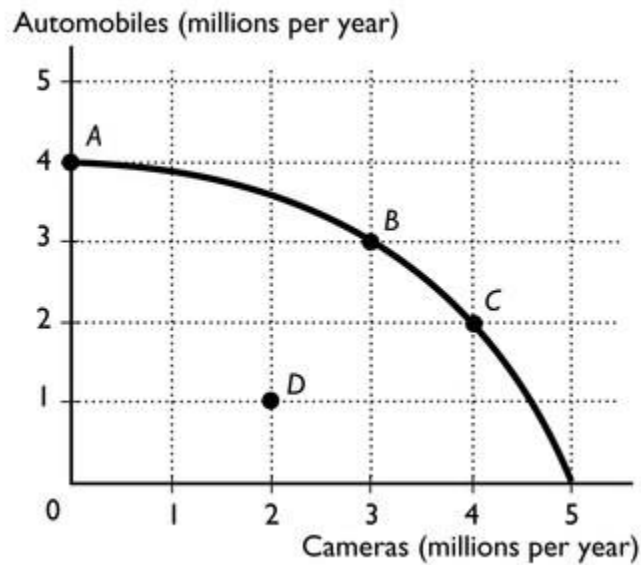
Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking



9) The figure above represents the production possibilities frontier for a country.

- The nation is currently producing at point *B* and wants to move to point *C*. What is the opportunity cost of the move?
- The nation is currently producing at point *B* and wants to move to point *A*. What is the opportunity cost of the move?
- The nation is currently producing at point *D* and wants to move to point *B*. What is the opportunity cost of the move?

Answer:

- By moving from point *B* to point *C*, the production of automobiles decreases by 1 million, from 3 million to 2 million. The 1 million decrease in automobiles is the opportunity cost of the movement.
- By moving from point *B* to point *A*, the production of cameras decreases by 3 million, from 3 million to 0 million. The 3 million decrease in cameras is the opportunity cost of the movement.
- By moving from point *D* to point *B* the nation gains 1 million additional cameras and also gains 2 million additional automobiles. The opportunity cost of this movement is zero, because there are no goods forgone. No goods are forgone because the nation is moving from a point with inefficiently used resources, point *D*, to one at which resources are efficiently utilized, point *B*.

Topic: Opportunity cost

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

Production point	Beef (pounds)		Wheat (bushels)
A	0	and	9
B	2	and	7
C	4	and	4
D	6	and	0

10) The table above presents the production possibilities of Farmer Brown. Use these data to calculate Farmer Brown's opportunity cost of additional beef as Farmer Brown moves from point *A* to *B* to *C* to *D*. Also use the data to calculate Farmer Brown's opportunity cost of additional wheat as Farmer Brown moves from point *D* to *C* to *B* to *A*. Based on these costs, does Farmer Brown use resources that are more productive in one activity than the other or are they equally productive in both uses? Explain your answer.

Answer: The opportunity cost of a pound of beef is 1 bushel of wheat between points *A* and *B*, 1 1/2 bushels of wheat between points *B* and *C*, and 2 bushels of wheat between points *C* and *D*. The opportunity cost of a bushel of wheat is 1/2 pound of beef between points *D* and *C*, 2/3 pound of beef between points *C* and *B*, and 1 pound of beef between points *B* and *A*. Farmer Brown does use resources that are more productive in one activity than the other because the opportunity costs of producing beef and wheat increase as more beef and wheat are produced. If the resources were equally productive in both activities, the opportunity costs would be constant.

Topic: Increasing opportunity costs

Skill: Level 3: Using models

Section: Checkpoint 3.2

Status: Old

AACSB: Analytical thinking

3.9 Essay: Economic Growth

1) How is economic growth shown in a production possibilities frontier graph?

Answer: Economic growth is illustrated as an outward shift of the *PPF*.

Topic: Economic growth

Skill: Level 2: Using definitions

Section: Checkpoint 3.3

Status: Old

AACSB: Reflective thinking

3.10 Essay: Specialization and Trade

1) What is comparative advantage? Give an example.

Answer: Comparative advantage is the ability of a person to produce a good at a lower opportunity cost compared to another person. A lower opportunity cost means that the person gives up less to produce the good compared to another person. For example, one person may need to give up one hour of typing to get dinner made while another person must give up two hours of typing to produce the same dinner.

Topic: Comparative advantage

Skill: Level 1: Definition

Section: Checkpoint 3.4

Status: Old

AACSB: Written and oral communication

2) "When a person has an absolute advantage in producing a good, the person necessarily has a lower opportunity cost of producing it." Is this assertion correct or incorrect?

Answer: The assertion is incorrect. An absolute advantage is when a person can produce more of the good than someone else. A comparative advantage relies on a comparison of opportunity costs, so a person has a comparative advantage in producing a good if the person can produce the good at a lower opportunity cost.

Topic: Comparative advantage versus absolute advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Written and oral communication

3) "When a person is more productive in producing a good or service than another person, the first person has the comparative advantage in producing the good." Is this assertion correct or incorrect?

Explain your answer.

Answer: The assertion is incorrect. The statement describes an absolute advantage, that is, a person has an absolute advantage in the production of a good if the person can produce more of it in a given time period than someone else. Comparative advantage, however, relies on a comparison of opportunity costs. A person has a comparative advantage in producing a good if the person can produce the good at a lower opportunity cost than another person.

Topic: Comparative advantage versus absolute advantage

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Written and oral communication

4) Why is it likely that the United States has an absolute advantage in goods and yet it still ends up importing them from other countries?

Answer: The United States might have an absolute advantage in producing a good but not a comparative advantage. In this case, the opportunity cost of producing the good in the United States is higher than in another country. Thus the United States will import the product from the other country.

Topic: Comparative advantage versus absolute advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Written and oral communication

5) The United States has an absolute advantage in producing sugar over all of the other sugar producing countries. Does this fact mean that we should not import any sugar from the other countries?

Answer: Having an absolute advantage doesn't mean that the United States should engage in the production of sugar. If the opportunity cost of sugar in the United States is higher than in the other countries, then the other countries will have the comparative advantage. The countries with the comparative advantage are the ones that should do the producing. Quite likely these other nations have the comparative advantage and so it would be good policy for the United States to import sugar from these nations.

Topic: Comparative advantage versus absolute advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Written and oral communication

6) Japan can use all of its resources to produce 100 videos or 400 shoes. China can use all of its resources to produce 25 videos or 200 shoes. Which nation has the comparative advantage in shoes and which nation has the comparative advantage in videos?

Answer: In Japan, the opportunity cost of producing a video is 4 shoes and in China it is 8 shoes. Therefore Japan has the comparative advantage in producing videos because its opportunity cost is lower. In Japan, the opportunity cost of producing a shoe is $\frac{1}{4}$ of a video and in China the opportunity cost of producing a shoe is $\frac{1}{8}$ of a video. China has the comparative advantage in producing shoes because its opportunity cost is lower.

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

7) The United States can use all of its resources to produce 50 computers or 4,000 shoes. Suppose that at world market prices, one computer exchanges for 100 shoes. Explain how the United States can gain from trade.

Answer: In the United States, the opportunity cost to produce 1 computer is 80 pairs of shoes. The United States can then sell the computers on the world market for 100 shoes each and thereby be ahead by 20 shoes per computer.

Topic: Comparative advantage

Skill: Level 4: Applying models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

China's production in 1 hour		Pakistan's production in 1 hour	
Cloth	8	Cloth	4
Cheese	16	Cheese	12

8) The table above shows the amounts of cloth and cheese that China and Pakistan can produce in an hour. Which country has the comparative advantage in cloth and which country has the comparative advantage in cheese?

Answer: In China, to produce 8 cloths has an opportunity cost of 16 cheeses, so the opportunity cost of 1 cloth is $(16 \text{ cheese}) / (8 \text{ cloths}) = 2 \text{ cheeses per cloth}$. In Pakistan, to produce 4 cloths has an opportunity cost of 12 cheeses. Hence the opportunity cost of 1 cloth is $(12 \text{ cheeses}) / (4 \text{ cloths})$ or 3 cheeses per cloth. Because China's opportunity cost of a cloth is lower, China has the comparative advantage in producing cloth.

In China, to produce 16 cheeses has an opportunity cost of 8 cloths, so the opportunity cost of 1 cheese is $(8 \text{ cloths}) / (16 \text{ cheeses}) = 1/2 \text{ cloth per cheese}$. In Pakistan, to produce 12 cheeses has an opportunity cost of 4 cloths. Hence the opportunity cost of 1 cheese is $(4 \text{ cloths}) / (12 \text{ cheeses})$ or $1/3 \text{ cloth per cheese}$. Because Pakistan's opportunity cost of a cheese is lower, Pakistan has the comparative advantage in producing cheese.

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

Omar's production in 1 day		John's production in 1 day	
Computers fixed	12	Computers fixed	4
Lines of code	800	Lines of code	200

9) Omar and John can fix computers or write computer programs. The table above shows the number of computers they can fix and the lines of code they can write in a day.

- Who, if anyone, has the absolute advantage?
- Who has the comparative advantage in fixing computers? Why?
- Who has the comparative advantage in writing programs? Why?

Answer:

a. Omar has an absolute advantage in fixing computers and writing code because he can fix 12 per day compared to John who can fix only 4 per day, and can write 800 lines of code per day compared to John who can write only 200 lines a day.

b. John has the comparative advantage in fixing computers. He has the comparative advantage because his opportunity cost of fixing one computer is 50 lines of computer code. Omar does not have a comparative advantage in fixing computers because his opportunity cost of fixing a computer is higher at 66.7 lines of code.

c. Omar has the comparative advantage in writing programs. His opportunity cost of writing one line of code is .015 of a computer fixed. John does not have the comparative advantage in writing programs because his opportunity cost of writing one line of code is 0.02 computers fixed. (Alternatively, to write 1 line of code costs Omar the opportunity to repair 1.5 percent of a computer and costs John the opportunity to repair 2.0 percent of a computer.)

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

Nation A's production in 1 day		Nation B's production in 1 day	
Computers	100	Computers	120
Software	140	Software	150

10) Two nations can produce computers and software in the amounts given in the table above. Does either nation have an absolute advantage in producing the products? Which nation has a comparative advantage in computers? Which nation has a comparative advantage in software? Explain your answers.

Answer: Nation B has an absolute advantage in producing both goods because it can produce more of both in one day than can Nation A. Nation B has the comparative advantage in computer production and Nation A has the comparative advantage in software. The nation with the lowest opportunity cost of producing a good has the comparative advantage in that good. In Nation A, to produce 100 computers has the opportunity cost of 140 units of software forgone, so the opportunity cost of 1 computer equals $(140 \text{ units of software}) / (100 \text{ computers}) = 1.4$ units of software per computer. In Nation B, similar calculations show that the opportunity cost for a computer is 1.25 units of software per computer. Nation B's opportunity cost is lower, so Nation B has the comparative advantage in computers. For software, in Nation A the opportunity cost of a unit of software is $(100 \text{ computers}) / (140 \text{ units of software}) = 0.71$ computers per unit of software while in Nation B the opportunity cost is $(120 \text{ computers}) / (150 \text{ units of software}) = 0.80$ computers per unit of software. Nation A's opportunity cost is lower, so Nation A has the comparative advantage in software.

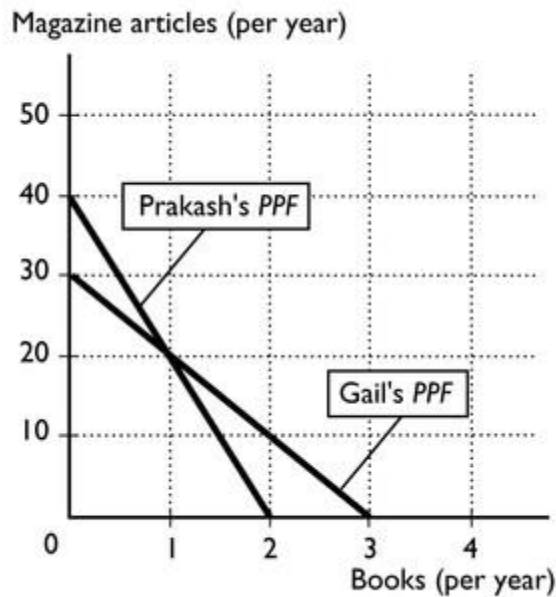
Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking



11) The figure above shows Prakash's and Gail's production possibilities frontiers for writing books and magazine articles.

- What is Prakash's opportunity cost of a book? What is Gail's opportunity cost? Who has the comparative advantage in writing books?
- Who has the comparative advantage in writing magazine articles?
- According to their comparative advantages, who should write books and who should write magazine articles?

Answer:

- In a year, Prakash can write 2 books or 40 magazine articles. Hence the opportunity cost of 1 book is $(40 \text{ magazine articles}) \div (2 \text{ books}) = 20$ magazine articles per book. In a year, Gail can write 3 books or 30 magazine articles. Hence the opportunity cost of 1 book is $(30 \text{ magazine articles}) \div (3 \text{ books}) = 10$ magazine articles per book. Gail's opportunity cost of writing books is lower than Prakash's, so Gail has the comparative advantage in writing books.
- Prakash has the comparative advantage in writing magazine articles.
- Gail has the comparative advantage in writing books, so she should write books. Prakash has the comparative advantage in writing magazine articles, so he should write magazine articles.

Topic: Comparative advantage

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking

12) "When countries specialize in producing the good in which they have a comparative advantage and then trade with each other, only the country with the absolute advantage gains." Is the previous statement correct or incorrect? Briefly explain your answer.

Answer: The statement is incorrect. Absolute advantage, which is essentially the ability to produce more of a good than another country, has nothing to do with the gains from trade. All nations gain from free international trade regardless of whether they possess an absolute advantage or not.

Topic: Gains from trade

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Written and oral communication

13) "Because the United States is the largest economy in the world and can produce anything it needs domestically, there are no gains from trade for the United States." Is the previous statement correct or incorrect?

Answer: The statement is incorrect. The United States, like any other nation, gains from trade when it specializes according to comparative advantage.

Topic: Gains from trade

Skill: Level 2: Using definitions

Section: Checkpoint 3.4

Status: Old

AACSB: Reflective thinking

14) How can a nation that is at an absolute *disadvantage* gain from trade?

Answer: Being at an absolute disadvantage means that the nation can produce less than its trading partner, but it says nothing about the relative costs of producing the goods. International trade is based on comparative advantage, which means that the low-cost producer specializes in the production of a good and exports it to the other nation that has the higher cost of production. A nation that has an absolute disadvantage still has a lower opportunity cost of production for one of the goods and hence has the comparative advantage in the production of that good. Therefore this country will gain from trade, as will all its trading partners.

Topic: Gains from trade

Skill: Level 4: Applying models

Section: Checkpoint 3.4

Status: Old

AACSB: Written and oral communication

15) Why do nations engage in international trade?

Answer: Nations engage in international trade because they gain from trade. International trade results in a more efficient use of resources and thereby increases world output. As a result, it increases the amount of goods and services available for consumption in all nations and thereby makes all countries better off.

Topic: Gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Written and oral communication

16) Explain why specialization and trade increases a country's overall level of consumption.

Answer: A country specializes in the activities in which it has the lowest opportunity cost. By trading, it can obtain goods and services at a lower opportunity cost than it would cost to produce the goods and services domestically. Hence the nation acquires goods and services at a lower cost than before and so the nation's consumption increases. In fact, trade allows the nation to consume at a point beyond its production possibilities frontier.

Topic: Gains from trade

Skill: Level 3: Using models

Section: Checkpoint 3.4

Status: Old

AACSB: Analytical thinking