

True/False

[Question]

1. The production possibility model can be used to demonstrate the concept of opportunity cost.

Ans: True

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The production possibility model shows all the possible production combinations and also demonstrates the trade-offs involved in moving from one combination to another.

[Question]

2. Production possibility curves are upward-sloping because increased production of one good implies reduced production of other goods.

Ans: False

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Production possibility curves are downward-sloping. The rest of the statement is correct.

[Question]

3. An economy that operates inside its production possibility curve is less efficient than it would be if it were operating on its production possibility curve.

Ans: True

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The production possibility curve represents the most output we can get with a given level of inputs. Operating inside that curve would mean that we can produce more with the given inputs and, as long as we prefer more to less, represents a less efficient point than a point on the production possibility curve.

[Question]

4. If the principle of increasing marginal opportunity cost holds, the opportunity cost of producing each additional unit of a good should fall as production of that good rises.

Ans: False

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: See the definition of the principle of increasing marginal opportunity cost in the text.

[Question]

5. Productive efficiency is not achieved at any point inside the production possibility curve.

Ans: True

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Since it is always possible to reallocate resources at any point inside the production possibility curve in a way that increases output, these points do not represent productive efficiency.

[Question]

6. If a country has a comparative advantage in the production of a good, its resources are better suited to the production of that good than are the resources of other countries.

Ans: True

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: See the definition of comparative advantage in the text.

[Question]

7. Two nations with differing comparative advantages will be able to consume more if they specialize and trade with each other than if they did not specialize or trade with each other.

Ans: True

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Trade shifts production of each good to the country or countries with the lowest opportunity costs. As a consequence, total production rises and hence so does total consumption, allowing each country to consume more than if it did not trade.

[Question]

8. Two nations with differing comparative advantages will be able to consume more if each produces the good for which the opportunity cost is highest and trades for the good for which opportunity cost is lowest.

Ans: False

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Each country should produce that good for which opportunity cost is lowest (for which it has a comparative advantage in producing) and trade for the good for which opportunity cost is highest.

[Question]

9. The law of one price means that prices eventually will be the same in all countries and eventually countries will not have a reason to trade.

Ans: False

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-04

Topic: Globalization and the Law of One Price

Feedback: Although the law of one price means that prices eventually will be the same in all countries, this happens because countries *do* trade. As long as the comparative advantages differ, there is a reason to trade.

Multiple Choice

[Question]

10. Which of the following cannot be determined by using a production possibility table?

A. What combination of outputs can be produced

B. How much less of one output must be produced if more of another output is produced

C. What combination of outputs is best

D. How much output can be produced from a given level of inputs

Ans: C

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: Easy

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: A production possibility table indicates what combinations of goods can be produced, not what combination is best.

[Question]

11. Suppose each of the following rows represents the choice faced by policy makers given the current set of U.S. institutions and technology. What is the opportunity cost of reducing unemployment from 8 percent to 4 percent?

Unemployment	Inflation
10	3
8	4
6	5
5	7
4	10

- A. 4 percentage points of unemployment
- B. 6 percentage points of unemployment
- C. 6 percentage points of inflation
- D. 4 percentage points of inflation

Ans: C

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The opportunity cost is what must be given up. In this case, to reduce unemployment from 8 percent to 4 percent, inflation must rise from 4 percent to 10 percent. The change in the inflation rate is the opportunity cost of lowering unemployment.

[Question]

12. Investment in capital goods is one way to increase the standard of living in the future. Investment in capital goods, however, means that we must forgo consumption today. One of the trade-offs facing an economy is consumption today and consumption in the future. The following table presents such a trade-off. With this information we know that the opportunity cost of which of the following is the greatest?

Current consumption	Future consumption
800	100
750	260
650	340
600	380
550	400

- A. increasing current consumption from 750 to 800
- B. increasing current consumption from 650 to 750
- C. increasing current consumption from 600 to 650
- D. increasing current consumption from 550 to 600

Ans: A

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The opportunity cost of increasing current consumption increases as current consumption rises. The opportunity cost of increasing consumption from 750 to 800 is 160 future

consumption units, but the opportunity cost of increasing current consumption from 550 to 600 is only 20 future consumption units.

[Question]

13. With the resources available, you can make the combinations of Ums and Umies (trinkets from a place called Bandarban) shown in the table. The opportunity cost of producing 60 Umies instead of 30 Umies is:

Number of Ums	Number of Umies
60	0
40	30
20	60
0	90

- A. 10 Ums
- B. 20 Ums
- C. 30 Ums
- D. 40 Ums

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Producing an extra 30 Umies means not producing 20 (40 – 20) Ums.

[Question]

14. Evan can grow both roses and carnations in his garden. His production possibility table is shown below. If he is currently producing 110 roses, his opportunity cost of producing 40 more roses is:

Number of roses	Number of carnations
0	155
60	135
110	109
150	78
180	0

- A. 20 carnations
- B. 26 carnations
- C. 31 carnations
- D. 78 carnations

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Producing an extra 40 roses means not producing 31 (109 – 78) carnations.

[Question]

15. Consider the table below, in which each production choice represents a point on a production possibility curve.

Choice	Eggs	Rye
A	10	0
B	8	10
C	6	20
D	4	30
E	2	40
F	0	50

This production possibility table could be graphed as a:

- A. straight line with negative slope.
- B. curved line with negative slope.
- C. straight line with zero slope.
- D. curved line with positive slope.

Ans: A

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

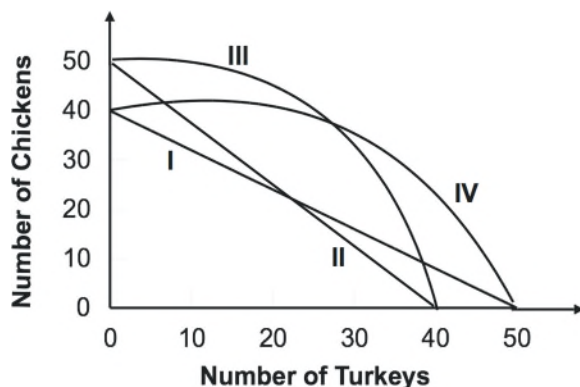
Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Graph each point and find out that the graph of the table is a straight line or realize that the opportunity cost of 10 rye is always 2 eggs. Constant opportunity costs are represented by a straight-line production possibility curve.

[Question]

16. Refer to the graph below.



Suppose that the opportunity cost of producing 10 chickens is always 8 turkeys. Given this, the relevant production possibility curve must be:

- A. I.
- B. II.

C. III.

D. IV.

Ans: B

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-01

Topic: The Production Possibility Model

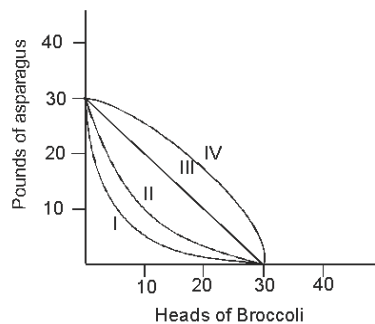
Feedback: This is the only curve along which opportunity cost is constant and equal to 0.8 turkeys per chicken.

[Question]

17. The production possibility table below on the left is for growing broccoli and asparagus in a 320-square-foot garden in one season.

Production Possibility

broccoli	asparagus
30	0
20	18
10	26
0	30



Which curve on the graph on the right corresponds to this table?

A. I

B. II

C. III

D. IV

Ans: D

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Each curve has the same anchor. To determine the correct curve, look at how opportunity cost changes as you choose more broccoli. As you choose more broccoli, the opportunity cost per broccoli increases, meaning the production possibility curve is bowed outward.

[Question]

18. Because you can get more of one good only by giving up some of another good, the shape of a production possibility curve is:

A. upward-sloping.

B. perfectly vertical.

- C. perfectly horizontal.
- D. downward-sloping.

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The negative slope of a production possibility curve represents the opportunity cost concept—you get more of one benefit only if you get less of another benefit.

[Question]

19. Refer to the production possibility curve for Ricardia below.



The graph indicates that with the resources and technology it has available, Ricardia:

- A. can produce either 40 units of rye or 20 units of eggs.
- B. can produce both 40 units of rye and 20 units of eggs.
- C. cannot produce both 20 units of rye and 10 units of eggs.
- D. cannot produce both 20 units of rye and 5 units of eggs.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

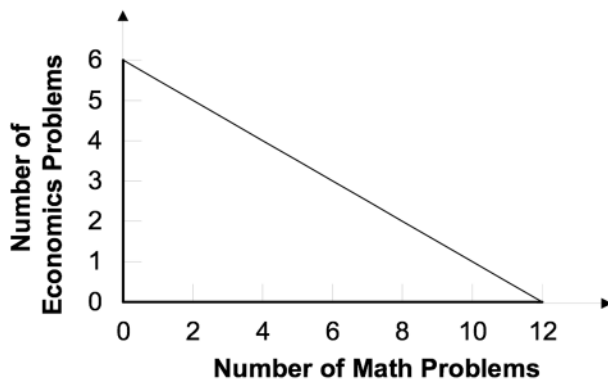
Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: From this graph we can tell that with the given inputs, the following combinations are possible [eggs, rye]: (20, 0), (15, 10), (10, 20), (5, 30), and (0, 40).

[Question]

20. Refer to the graph below.



Laura's production possibility curve for math and economics problems in one night is shown in the graph. Her opportunity cost of finishing six math problems instead of four math problems is:

- A. one economics problem.
- B. two economics problems.
- C. three economics problems.
- D. four economics problems.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

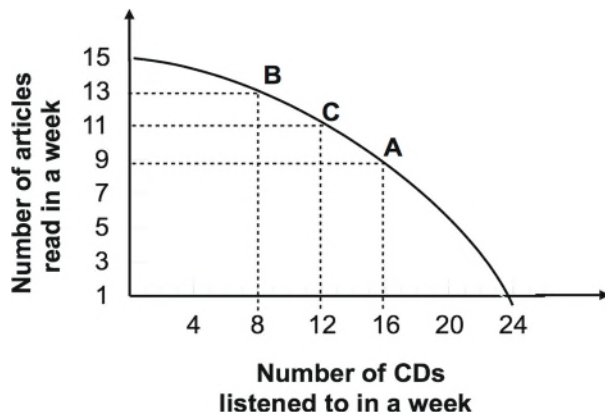
Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Finishing two more math problems means not finishing one ($4 - 3$) economics problem.

[Question]

21. Given the production possibility curve shown, the opportunity cost of listening to each additional CD when moving from point B to point A is on average:



- A. $\frac{1}{2}$ article.
- B. 1 article.
- C. 2 articles.
- D. 3 articles.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

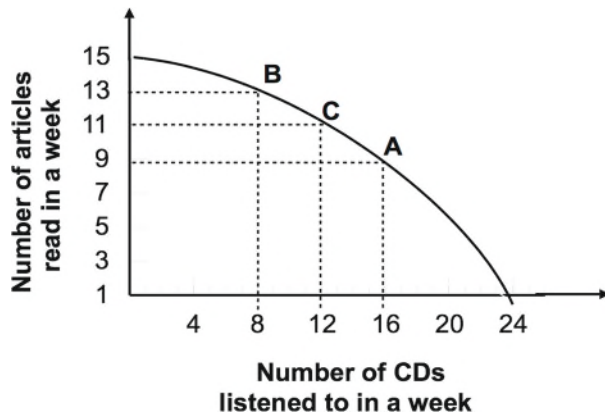
Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Moving from point B to point A means giving up 4 articles for 8 CDs. Thus, the opportunity cost is $\frac{4}{8}$, or $\frac{1}{2}$ article.

[Question]

22. Refer to the graph shown. Given the production possibility curve, the opportunity cost of reading 2 more articles when you are already reading 11 articles is on average:



- A. $\frac{1}{2}$ CD per article.
- B. 2 CDs per article.
- C. $\frac{2}{3}$ CD per article.
- D. 3 CDs per article.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Moving from C to B means giving up 4 CDs for 2 articles, or 2 CDs per article.

[Question]

23. If a production possibility curve representing a trade-off between a grade in English and a grade in math has a negative slope, we know that:

- A. there is a direct relationship between grades in English and grades in math.
- B. there is no relationship between grades in English and grades in math.

C. there is an inverse relationship between grades in English and grades in math.

D. one can get better grades in English only if one gets better grades in math.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The negative slope of the production possibility curve implies that one can get better grades in English only by sacrificing better grades in math.

[Question]

24. Given a production possibility curve for good X (on the x-axis) and good Y (on the y-axis), the opportunity cost of increasing good X is greatest when the slope of the production possibility curve is:

A. -6.

B. -4.

C. 6.

D. 4.

Ans: A

AACSB: Analytic

Bloom's: Analyze

Difficulty: 03 Hard

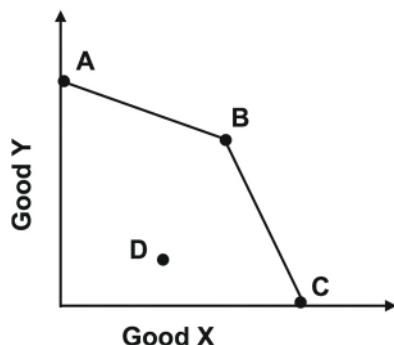
Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: A slope of -6 means that one must give up 6Y to get 1X. A slope of -4 means that one must give up only 4Y to get 1X.

[Question]

25. Refer to the graph shown. In the graph, the opportunity cost of good X in terms of good Y is:



A. higher along segment AB than along segment BC.

B. lower along segment AB than along segment BC.

C. the same everywhere on the two segments.

D. always increasing as we move from A to C.

Ans: B

AACSB: Analytic

Bloom's: Analyze

Difficulty: 03 Hard

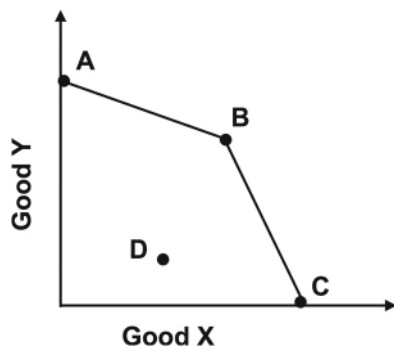
Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The slope of the production possibility curve represents the opportunity cost of producing one good in terms of another. Since this slope is greater along BC than along AB, the opportunity cost of producing X in terms of Y is higher along the former. Note that the slope is constant along both BC and AB and slope changes only when we move from one segment to the other.

[Question]

26. In the graph shown, what change would increase production efficiency?



A. moving from A to D

B. moving from A to B

C. moving from C to D

D. moving from D to B

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Efficiency is increased when a given quantity of inputs is reallocated in such a way as to produce more of each good. Operating inside the production possibility curve is less efficient than an economy operating on its production possibility curve would be.

[Question]

27. England has a relatively cool and cloudy climate that is ill suited for grape growing. It can produce 200 units of wine for every 400 units of cloth. Portugal, in contrast, has a relatively warm and sunny climate that is good for growing grapes. It can produce 200 units of wine for every 100 units of cloth. Which country has the higher opportunity cost of producing cloth?

A. Portugal: 2 units of wine for every unit of cloth

B. England: 2 units of wine for every unit of cloth

- C. Portugal: $\frac{1}{2}$ unit of wine for every unit of cloth
D. England: $\frac{1}{2}$ unit of cloth for every unit of wine

Ans: A

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The opportunity cost for England of producing 1 unit of cloth is $\frac{1}{2}$ unit of wine. The opportunity cost for Portugal of producing 1 unit of cloth is 2 units of wine. Therefore, Portugal has the higher opportunity cost.

[Question]

28. Increasing marginal opportunity cost means that the production possibility curve is:
- A. bowed in so that for every additional unit of one good given up, you get fewer and fewer units of the other good.
 - B. bowed in so that for every additional unit of one good given up, you get more and more units of the other good.
 - C. bowed out so that for every additional unit of a good given up, you get fewer and fewer units of the other good.
 - D. bowed out so that for every additional unit of one good given up, you get more and more units of the other good.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Increasing marginal opportunity cost means that as you continue to give up equal amounts of one good, you obtain less and less of the other good.

[Question]

29. This production possibility table illustrates:

Eggs	Rye
10	0
8	10
6	20
4	30
2	40
0	50

- A. increasing marginal opportunity cost.
- B. decreasing marginal opportunity cost.
- C. constant marginal opportunity cost.
- D. zero opportunity cost.

Ans: C

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Since one must always give up 2 eggs for 10 more units of rye, opportunity cost is unchanging.

[Question]

30. The principle of increasing marginal opportunity costs states that the initial opportunity costs are:

- A. high but decrease the more you concentrate on the activity.
- B. low but increase the more you concentrate on the activity.
- C. high but increase the more you concentrate on the activity.
- D. low but decrease the more you concentrate on the activity.

Ans: B

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The principle of increasing marginal opportunity cost states that to get more of something, one must give up ever-increasing quantities of something else. This implies that initial opportunity costs are low, but increase the more you concentrate on the activity.

[Question]

31. To graphically demonstrate the principle of increasing marginal opportunity cost, the production possibility curve must be:

- A. flat.
- B. straight.
- C. bowed out.
- D. bowed in.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: When the production possibility curve is bowed out, as you increase production of one good, the slope of the curve becomes steeper. This implies that more and more of the other good must be given up. This follows the principle of increasing marginal opportunity cost.

[Question]

32. If there were decreasing marginal opportunity costs, the production possibility curve would be:

- A. flat.
- B. straight.

C. bowed out.

D. bowed in.

Ans: D

AACSB: Analytic

Bloom's: Analyze

Difficulty: 03 Hard

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: When the production possibility curve is bowed in, as you increase production of one good, the slope of the curve becomes flatter; that is, less and less of the other good must be given up, and so marginal opportunity cost is decreasing.

[Question]

33. Refer to the graph below.



The graph indicates that as more eggs are produced, the marginal opportunity cost of:

A. both eggs and rye increases.

B. eggs increases while the marginal opportunity cost of rye remains constant.

C. eggs increases while the marginal opportunity cost of rye decreases.

D. eggs decreases while the marginal opportunity cost of rye remains constant.

Ans: C

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

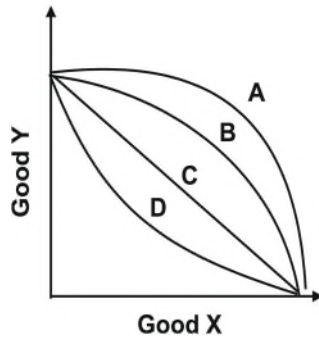
Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: Since the production possibility curve is bowed outward, we know that it demonstrates the principle of increasing opportunity cost. As more eggs are produced, the marginal opportunity cost of eggs increases and the marginal opportunity cost of rye decreases.

[Question]

34. Refer to the graph below.



With which curve does the opportunity cost of an additional unit of good Y decrease as more units of good Y are produced?

- A. A
- B. B
- C. C
- D. D

Ans: D

AACSB: Analytic

Bloom's: Analyze

Difficulty: 03 Hard

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: A production possibility curve that exhibits decreasing marginal opportunity cost must be bowed inward.

[Question]

35. When you produce cars, it is enormously expensive to produce one car, but then the costs per car decrease as more are produced. This would be an example of:

- A. increasing marginal opportunity costs.
- B. decreasing marginal opportunity costs.
- C. constant marginal opportunity costs.
- D. increasing returns to scale.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: If the marginal cost of producing additional cars declines as more cars are produced, the opportunity cost rises at a decreasing rate.

[Question]

36. The principle of increasing marginal opportunity cost does not hold in which of the following cases?

- A. All inputs are equally adaptable to the production of all goods.
- B. Some inputs are more adaptable to the production of certain goods.
- C. Some inputs are less adaptable to the production of certain goods.
- D. Each input is adaptable to the production of a limited number of goods.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: In this case, opportunity costs will not increase as inputs are transferred from the production of one good to the production of another since all inputs are equally effective in the production of all goods.

[Question]

37. The principle of increasing marginal opportunity cost holds in which of the following cases?

- A. All inputs are equally adaptable to the production of all goods.
- B. The production possibility curve is a downward-sloping straight line.
- C. Some inputs are better for producing particular goods.
- D. Each input can be used to produce only one good.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-01

Topic: The Production Possibility Model

Feedback: The principle of increasing marginal opportunity cost is based on the assumption that different resources have varying levels of effectiveness in the production of different goods.

[Question]

38. If you move from a point inside the production possibility curve to a point on the production possibility curve, it follows that efficiency is:

- A. increased because the economy is now on the production possibility curve.
- B. increased only if production of both goods increases.
- C. increased as long as the combined output of both goods increases.
- D. reduced if less of one good is produced.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

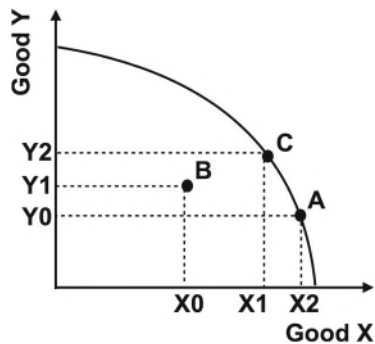
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: According to the text, efficiency is increased when the economy moves from a point inside the production possibility curve to a point on this curve. This is the case because resources are allocated more effectively as a result of this movement.

[Question]

39. Refer to the graph below.



As you move from point A to point B:

- A. production efficiency is increased because we have more of good X.
- B. production efficiency is decreased because we have less of good Y.
- C. production efficiency is decreased because we are no longer on the production possibility curve.
- D. the change in efficiency is unclear.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

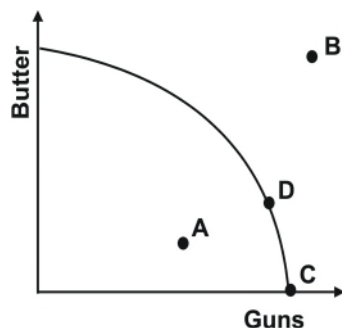
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: According to the text, efficiency is achieved only when the economy is on the production possibility curve. Points inside this frontier are inefficient because more output can always be obtained by reallocating resources.

[Question]

40. Refer to the graph below.



Given the production possibility curve, which point is unattainable?

A. A

B. B

C. C

D. D

Ans: B

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

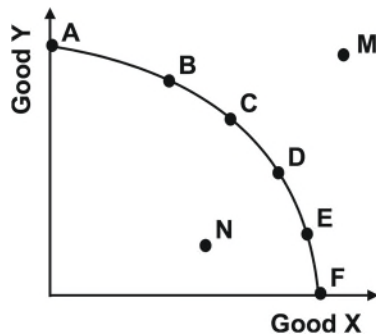
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: A production possibility curve shows the combinations of output than can be obtained from a given quantity of inputs. All points outside the curve are unattainable, and so B is unattainable.

[Question]

41. Refer to the graph below.



Productive efficiency is achieved at what points?

A. A, B, and M

B. C, D, and N

C. A, C, and F

D. M, D, and E

Ans: C

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

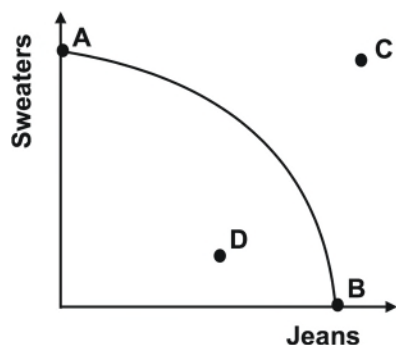
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Productive efficiency is achieved when as much output as possible is obtained from a given amount of resources. Points on the production possibility curve (i.e., A through F) represent points of productive efficiency. Points inside the curve (i.e., N) represent points of productive inefficiency (N). Points outside the curve (i.e., M) are unattainable.

[Question]

42. Refer to the graph below.



Productive inefficiency occurs at what point?

- A. A
- B. B
- C. C
- D. D

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Efficiency is not achieved at D because resources can be reallocated in such a way as to produce more of both goods.

[Question]

43. The term *efficiency* involves achieving a goal as:

- A. quickly as possible.
- B. cheaply as possible.
- C. well as possible.
- D. steadily as possible.

Ans: B

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: See the definition of efficiency in the text.

[Question]

44. In election campaigns, presidents often promise more of everything (that is, more guns and more butter). What would help those elected president fulfill that promise?

- A. The economy becomes more efficient.
- B. The United States limits imports into the country.
- C. Illegal immigration into the United States is severely limited.
- D. A minimum wage bill is passed.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

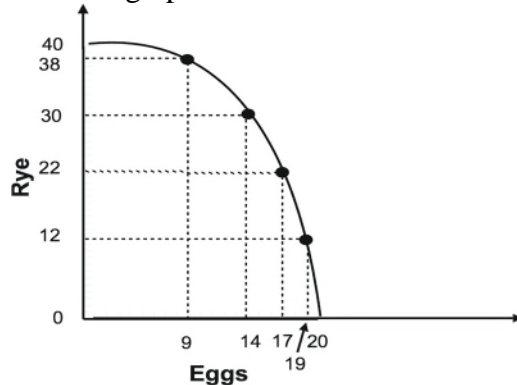
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Assuming no trade, to get more of both goods, there must be an increase in inputs or an increase in productive efficiency.

[Question]

45. The graph below indicates that the economy can produce both:



- A. 20 units of eggs and 5 units of rye, although this would not be production efficient.
- B. 10 units of eggs and 20 units of rye, although this would not be production efficient.
- C. 20 units of eggs and 5 units of rye, and this would be production efficient.
- D. 10 units of eggs and 20 units of rye, and this would be production efficient.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

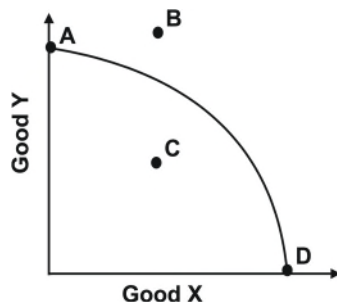
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Producing 20 eggs and 5 units of rye is unattainable. Producing 10 units of eggs and 20 units of rye is inside the production possibility curve, whereas 40 units of rye is on the production possibility curve so that the first combination is less efficient than the second.

[Question]

46. Refer to the graph below.



If the production possibility curve shifts along the Good Y axis, which point will remain as a point of efficiency?

- A. A
- B. B
- C. C
- D. D

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

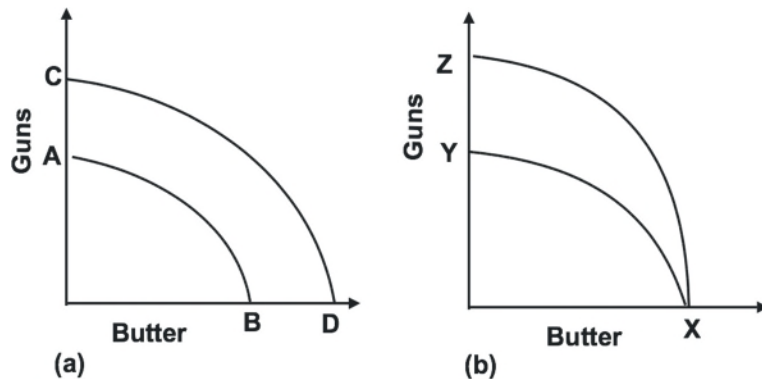
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: If the production possibility curve shifts along its y-axis, the x-intercept will remain the same. Point D will remain efficient. Point B may become efficient, but was originally unobtainable.

[Question]

47. Refer to the graphs shown. The discovery of a new supply of resources used only in the production of guns can be shown by which movement?



- A. From A to B to C to D in diagram a
- B. From C to D to A to B in diagram a
- C. From X to Y to X to Z in diagram b
- D. From X to Z to X to Y in diagram b

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

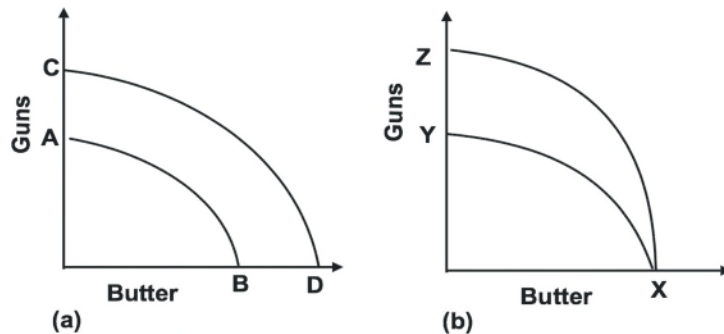
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Since the new resources will not increase the maximum amount of butter that can be increased but will increase the maximum number of guns, the production possibility curve will rotate up, staying anchored at X.

[Question]

48. Refer to the graph shown. Destruction of some of the resources necessary to produce both guns and butter would result in what movement?



- A. From A to B to C to D in diagram a.
- B. From C to D to A to B in diagram a.
- C. From X to Y to X to Z in diagram b.
- D. From X to Z to X to Y in diagram b.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

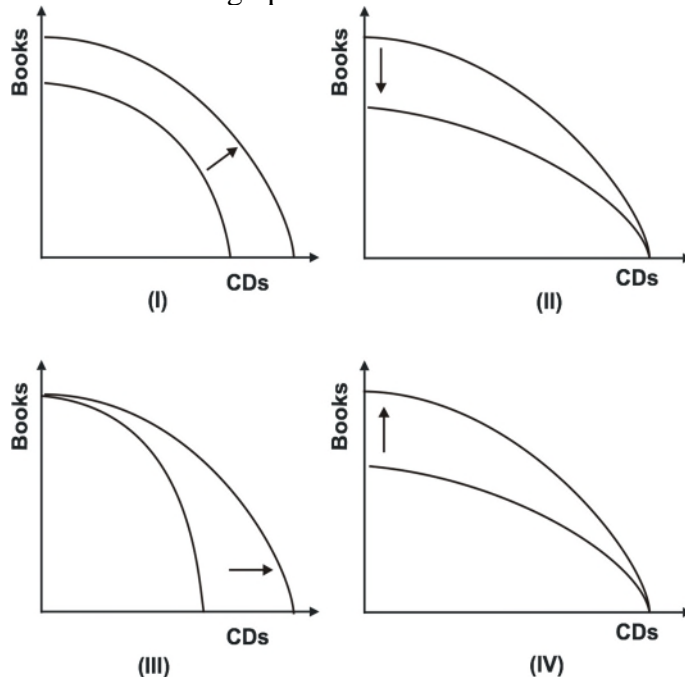
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: If inputs used in the production of both goods are destroyed, the maximum possible output of both good falls, causing the production possibility curve to shift in along both axes.

[Question]

49. Refer to the graph below.



In the 1980s, desktop publishing reduced the cost of producing books. Assuming no change in the cost of producing CDs, which of the shifts reflects this change in technology?

- A. I
- B. II
- C. III
- D. IV

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

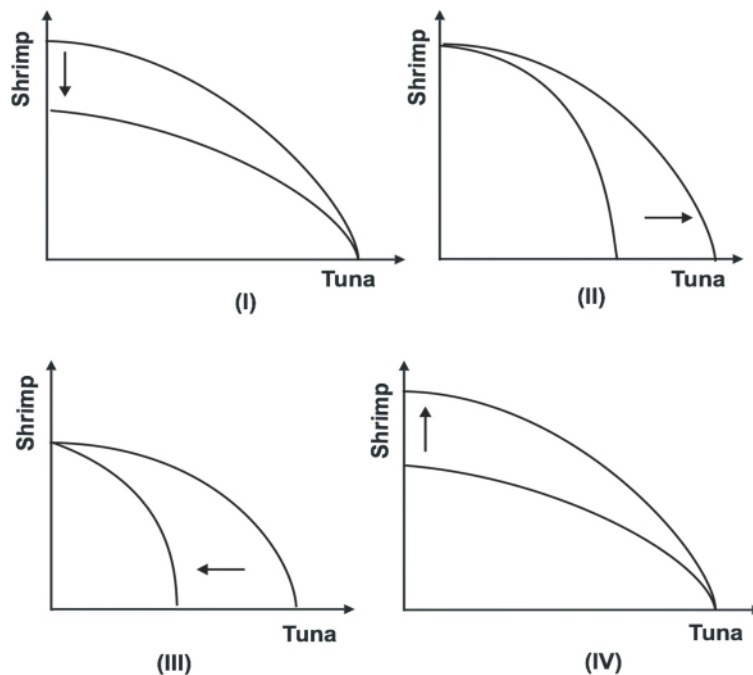
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: When the cost of producing books is reduced, more books will be produced thus shifting the Y-axis up. The production of CDs will remain unchanged. Since the technological development will increase the production of books but not affect the production of CDs, the correct shift is IV.

[Question]

50. Refer to the graph below.



Which of the shifts explains what would happen to the production possibility curve if restrictions were imposed on tuna fishing?

- A. I
- B. II
- C. III
- D. IV

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

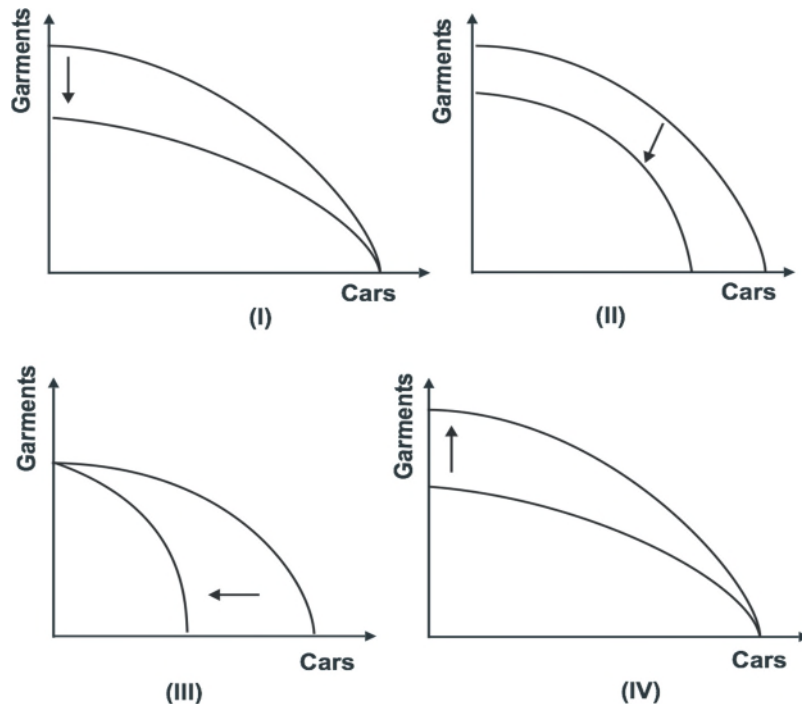
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Restrictions will decrease the production of tuna but will not alter the production of shrimp, making III the correct choice.

[Question]

51. Refer to the graph below.



Which of the shifts explains what would happen to the production possibility curve if a cyclone destroys five major garment factories in the Philippines?

A. I

B. II

C. III

D. IV

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

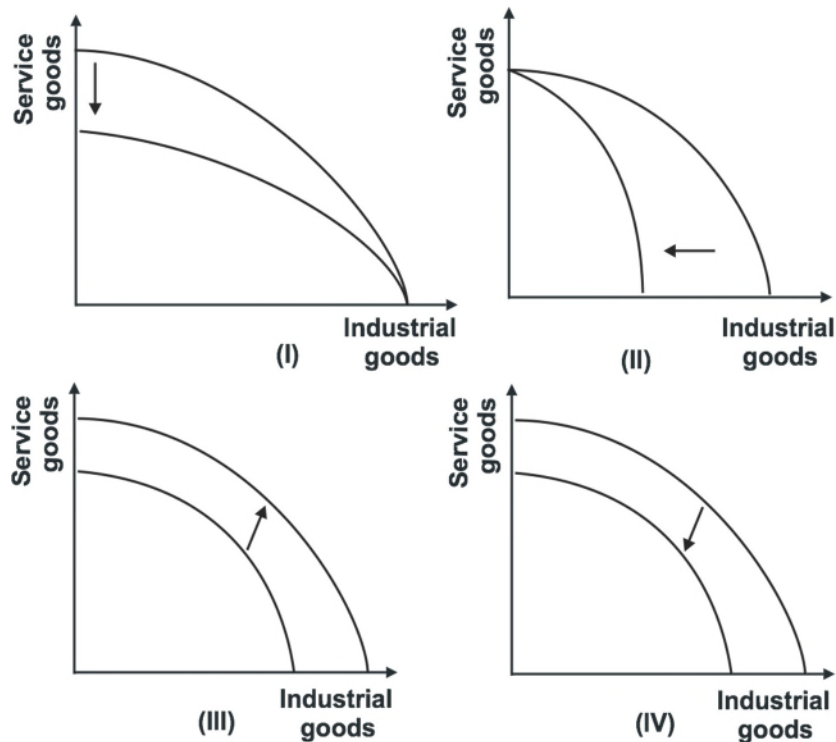
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Since the cyclone will reduce the production of garments but not alter the production of cars, I is the correct choice.

[Question]

52. Refer to the graph below.



Which of the shifts explains what will happen to the production possibility curve if political unrest and strikes disrupt all sectors of an economy equally?

- A. I
- B. II
- C. III
- D. IV

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

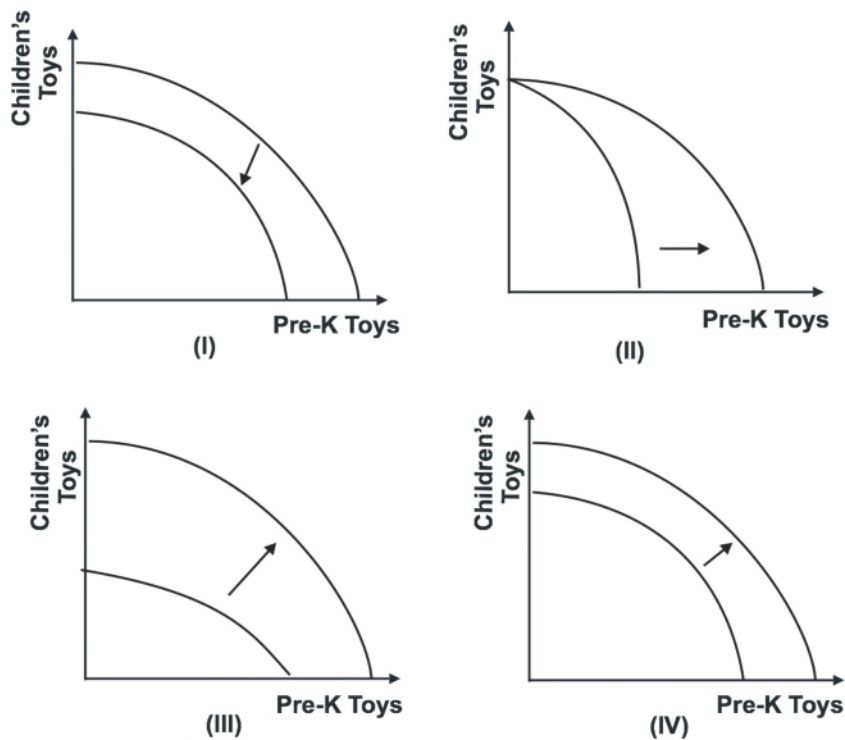
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Since the entire economy will be adversely affected, the entire production possibility curve will shift in.

[Question]

53. Refer to the graph below.



Which of the shifts explains what would happen to the production possibility curve if improved technologies increased the production of prekindergarten (Pre-K) toys by 25 percent and the production of children's toys by 50 percent?

- A. I
- B. II
- C. III
- D. IV

Ans: C

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

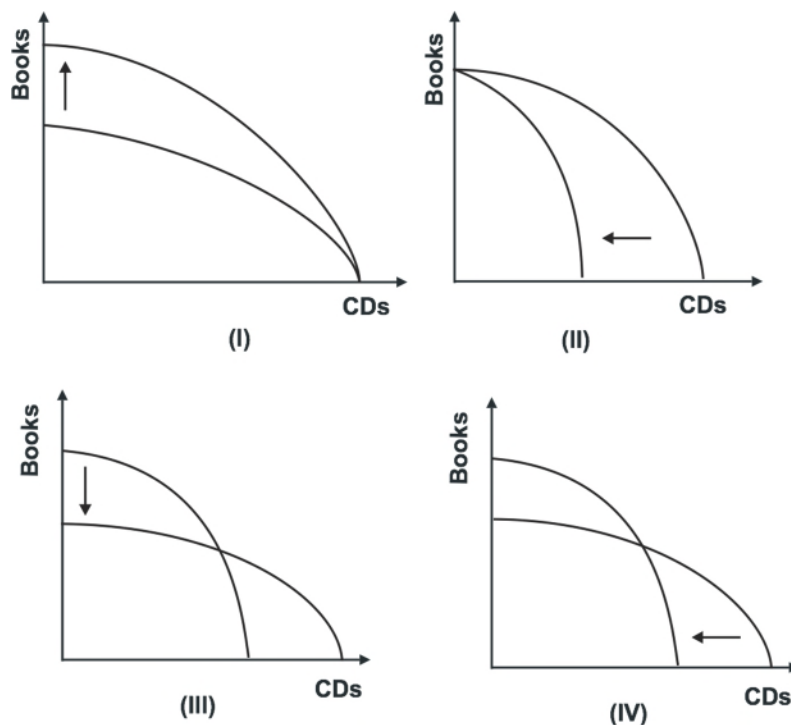
Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Technological development will increase the production of both toys but will increase the production of children's toys by a greater percentage, making III the correct answer.

[Question]

54. Refer to the graph below.



Which of the shifts explains what will happen to the production possibility curve if the cost of producing books goes down while the cost of producing CDs goes up?

- A. I
- B. II
- C. III
- D. IV

Ans: D

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Since the technological developments will increase the maximum amount of books that can be produced and reduce the maximum amount of CDs, the production possibility curve will pivot as in IV.

[Question]

55. A resource is said to have a comparative advantage if:

- A. it is better suited to the production of one good than to the production of an alternative good.
- B. it is equally suited to the production of all goods.
- C. its suitability to the production of one good changes as it produces more of that good.
- D. its suitability to the production of one good does not change as it produces more of that good.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: The definition of comparative advantage is the ability to be better suited to the production of one good than to the production of another good.

[Question]

56. If no resources had a comparative advantage in the production of any good, the production possibility curve would be:

- A. bowed outward.
- B. bowed inward.
- C. a horizontal line.
- D. a downward-sloping straight line.

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Since there is no comparative advantage, you need not give up ever-increasing quantities of one good to gain more of another good. The opportunity cost of gaining more of one good is constant, and the production possibility curve is a straight line connecting the maximum points for each good.

[Question]

57. If a country takes advantage of the comparative advantage of some resources over others, its production possibility curve is likely to be:

- A. flat.
- B. straight.
- C. bowed outward.
- D. bowed inward.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: If a country takes advantage of its comparative advantage, this means that it is relatively better at producing one good over another. An outward-bowed production possibility curve reflects this comparative advantage. As the country produces that good for which it does not have a comparative advantage, it must give up ever-increasing amounts of that good for which it has a comparative advantage.

[Question]

58. Which of the following is the best example of an economic precept?

- A. Predictable irrationality
- B. The supply/demand model
- C. The production possibility model
- D. Laissez-faire

Ans: D

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Predictable irrationality is an assumption. The supply/demand model is a model as is the production possibility model. Laissez-faire is a precept since it is the application of a model along with normative judgment about the relevance of the model and its assumptions to the real world.

[Question]

59. Laissez-faire is an economic:

- A. theorem because it is based on deductive analysis of a model that is based on assumptions.
- B. theorem because it is the logical conclusion of a model with carefully stated relationships among variables.
- C) precept because it is based on a model and normative judgments about the relevance of the model to the real world.
- D. precept because it is the logical conclusion of a model with widely held assumptions.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Laissez-faire is the application of a model along with a normative judgment about the relevance of the model and its assumptions to the real world. Thus, it is a precept, not a theorem.

[Question]

60. According to Adam Smith, individuals are directed to do those things for which they have a comparative advantage by:

- A. their self interest.
- B. corporate management.
- C. government policy.
- D. the educational system.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: According to Smith, it is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner but from their regard to their own interest.

[Question]

61. The text attributes the growth of economies over the last 200 years largely to:

- A. the development of markets.
- B. the discovery of additional resources.
- C. a decrease in the size of the world population.
- D. laissez-faire policies.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: The text attributes growth to the development of markets and the effect of trade on production.

[Question]

62. Given the production possibility tables for the First and Second Bakeries shown, we know that the opportunity cost of producing cookies:

First Bakery		Second Bakery	
Cookies	Pies	Cookies	Pies
0	18	0	9
10	12	30	6
20	6	60	3
30	0	90	0

- A. is higher at First Bakery.
- B. is higher at Second Bakery.
- C. is the same at both bakeries.
- D. cannot be computed without further information.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: The opportunity cost of producing cookies at First Bakery is 6 pies for every 10 cookies, or 0.6 pie for each cookie. At Second Bakery, the opportunity cost of producing cookies is 3 pies for every 30 cookies, or 0.1 pie per cookie.

[Question]

63. Given the production possibility tables for First and Second Bakeries shown, we know that the opportunity cost of producing pies:

First Bakery		Second Bakery	
Cookies	Pies	Cookies	Pies
0	18	0	9
10	12	30	6
20	6	60	3
30	0	90	0

- A. is higher at First Bakery.
- B. is higher at Second Bakery.
- C. is the same at both bakeries.
- D. cannot be computed without further information.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: The opportunity cost of producing pies at First Bakery is 10 cookies for every 6 pies, or 1.67 cookies for each pie. At Second Bakery, the opportunity cost of producing pies is 30 cookies for every 3 pies, or 10 cookies per pie.

[Question]

64. Given the production possibility tables for First and Second Bakeries shown, we can determine that:

First Bakery		Second Bakery	
Cookies	Pies	Cookies	Pies
0	18	0	9
10	12	30	6
20	6	60	3
30	0	90	0

- A. First Bakery has a comparative advantage in the production of both goods.
- B. Second Bakery has a comparative advantage in the production of pies.
- C. First Bakery has a comparative advantage in the production of pies.
- D. neither bakery has a comparative advantage.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: Since the opportunity cost of producing pies is lower at First Bakery than at Second Bakery, First Bakery has a comparative advantage in producing pies.

[Question]

65. Mexico has a comparative advantage in producing corn:

- A. if its opportunity cost of producing corn is higher than the opportunity cost in other countries.
- B. if its opportunity cost of producing corn is the same as the opportunity cost in other countries.

- C. if its opportunity cost of producing corn is lower than the opportunity cost in other countries.
- D. regardless of the opportunity cost in other countries.

Ans: C

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-02

Topic: Comparative Advantage

Feedback: A country has a comparative advantage in the production of a good if its opportunity cost of producing that good is less than that of other countries.

[Question]

66. Suppose New Zealand uses one unit of labor to produce a kiwi and two units of labor to produce an apple. Suppose Australia uses two units of labor to produce a kiwi and one unit of labor to produce an apple. In this case, New Zealand:

- A. has a comparative advantage in producing apples.
- B. has a comparative advantage in producing kiwis.
- C. has a comparative advantage in producing both goods.
- D. does not have a comparative advantage in producing either good.

Ans: B

AACSB: Analytic

Bloom's: Analyze

Difficulty: 03 Hard

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: The opportunity cost of a kiwi in New Zealand is half an apple since apple production is reduced by half when a unit of labor is transferred from apple production to kiwi production to increase kiwi production by one. The opportunity cost of a kiwi in Australia is two apples since apple production is reduced by two when two units of labor are transferred from apple production to kiwi production to increase kiwi production by one.

[Question]

67. Two countries that specialize their production along the lines of comparative advantage and then trade with each other will be able to:

- A. both produce and consume more.
- B. produce more and consume less.
- C. produce less and consume more.
- D. both produce and consume less.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Specialization increases efficiency, which results in higher production. Because more output is produced by the two countries as a result of specialization, both countries will have higher consumption after trade.

[Question]

68. Suppose that in Colombia one unit of labor can produce 8 tons of papayas or 2 tons of bananas and in Brazil, one unit of labor can produce either 4 tons of papayas or 1 ton of bananas. Given this information, which of the following statements is true?

- A. Columbia has a comparative advantage in producing papayas but not bananas.
- B. Columbia has a comparative advantage in producing papayas and bananas.
- C. These countries would increase combined consumption if they specialized and traded.
- D. These countries cannot gain from trading.

Ans: D

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Because each must give up 4 tons of papayas to increase its production of bananas by 1 ton, neither has a comparative advantage and there will be no gains from trade.

[Question]

69. Suppose that in Colombia one unit of labor can produce 8 tons of papayas or 2 tons of bananas and in Brazil, one unit of labor can produce either 2 tons of papayas or 4 tons of bananas. If each country has two units of labor, which of the following consumption combinations can be attained only with trade?

- A. Brazil consumes 8 tons of bananas and no papayas.
- B. Colombia consumes 16 tons of papayas and no bananas.
- C. Brazil consumes 2 tons of papayas and 4 tons of bananas.
- D. Colombia consumes 8 tons of papayas and 4 tons of bananas.

Ans: D

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: This consumption combination can be reached only through trade as it requires three units of labor to produce in Colombia and only two are available. Colombia could reach this consumption bundle by producing 16 tons of papayas and then trading 8 tons of papayas to Brazil for 4 tons of bananas. Note that all the other consumption combinations can be produced without trade.

[Question]

70. Suppose that in Slovakia one unit of labor can produce either 16 tons of wheat or 32 tons of soy and in Poland one unit of labor can produce either 4 tons of wheat or 2 tons of soy. Given this information, which of the following statements is true?

- A. Slovakia has a comparative advantage in producing neither wheat nor soy.
- B. Slovakia has a comparative advantage in producing both wheat and soy.
- C. Poland has a comparative advantage in producing soy but not wheat.
- D. Poland has a comparative advantage in producing wheat but not soy.

Ans: D

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Slovakia must give up 2 tons of soy to increase wheat production by 1 ton whereas Poland has to give up only 1/2 a ton of soy, and so Poland has a comparative advantage in producing wheat.

[Question]

71. Suppose that in Slovakia one unit of labor can produce either 20 tons of wheat or 40 tons of soy and in Poland one unit of labor can produce either 40 tons of wheat or 20 tons of soy. If each country has two units of labor, which of the following consumption combinations can be attained only with trade?

- A. Slovakia consumes 80 tons of soy.
- B. Slovakia consumes 30 tons of both soy and wheat.
- C. Poland consumes 80 tons of wheat.
- D. Poland consumes 40 tons of wheat and 20 tons of soy.

Ans: B

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Slovakia can reach this consumption combination by producing 80 tons of soy and then trading 50 tons of soy to Poland for 30 tons of wheat. Note that all the other consumption combinations can be produced without trade.

[Question]

72. The production possibility curves of two countries are given below:

<u>Legoland</u>		<u>Elmoland</u>	
Chocolate	Textiles	Chocolate	Textiles
30	0	60	0
20	20	30	15
15	30	20	20
0	60	0	30

Refer to the production possibility curves of the two countries. Without trade, the most each country could produce would be:

- A. 15 chocolate and 15 textiles.
- B. 20 chocolate and 20 textiles.

- C. 30 chocolate and 30 textiles.
D. 60 chocolate and 60 textiles.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: 20-20 is on the curve. Better results are not possible.

[Question]

73. The production possibility curves of two countries are given below:

<u>Legoland</u>		<u>Elmoland</u>	
Chocolate	Textiles	Chocolate	Textiles
30	0	60	0
20	20	30	15
15	30	20	20
0	60	0	30

Refer to the production possibility curves of the two countries. If they specialized and traded, which of the following is the largest bundle each country could have?

- A. 15 chocolate and 15 textiles
B. 20 chocolate and 20 textiles
C. 30 chocolate and 30 textiles
D. 60 chocolate and 60 textiles

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Combined, they can produce 60 of each good, which comes to 30-30 when split evenly.

[Question]

74. The production possibility frontiers of Northland and Southland are given. Without trade, Northland produces and consumes 20 apples and 5 bananas and Southland produces and consumes 10 apples and 40 bananas. Could they increase their consumption bundle by changing production and trading?

<u>Northland</u>		<u>Southland</u>	
Apples	Bananas	Apples	Bananas
30	0	30	0
20	5	20	20
10	10	10	40
0	15	0	60

- A. No; Southland does at least as well at producing both, so it would have no incentive to trade.
- B. Yes; they could gain 75 bananas and 60 apples.
- C. Yes; they could gain up to 60 apples without losing bananas
- D. Yes; they could gain up to 15 bananas without losing apples.

Ans: D

AACSB: Analytic

Bloom's: Apply

Difficulty: 03 Hard

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Without trade, 30 apples and 45 bananas are produced. With specialization, a position of 30 apples and 60 bananas is possible.

[Question]

75. Refer to the graph shown.



Suppose Country X exports agricultural goods to Country Y in exchange for industrial goods. This pattern of trade increases consumption in both countries only if:

- A. X and Y share production possibility curve A.
- B. X's production possibility curve is B and Y's is A.
- C. X's production possibility curve is A and Y's is B.
- D. X and Y share production possibility curve B.

Ans: B

AACSB: Analytic

Bloom's: Analyze

Difficulty: 03 Hard

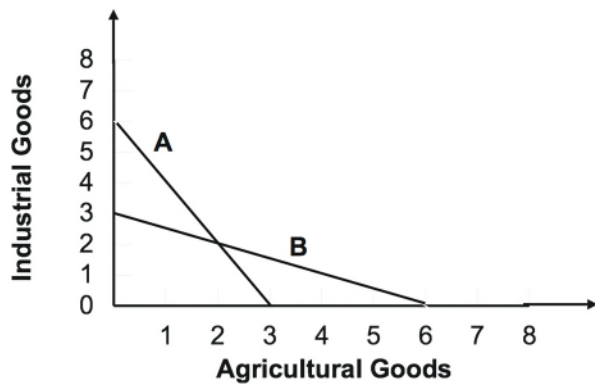
Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Since the opportunity cost of producing agricultural goods is lower along B than in A (and vice versa for industrial goods), trade based on comparative advantage will occur only if X's production possibility is B and Y's is A.

[Question]

76. Refer to the graph shown.



If Countries X and Y face the production possibility curves A and B, respectively, Country X has a comparative advantage in the production of:

- A. neither agricultural goods nor industrial goods.
- B. both agricultural goods and industrial goods.
- C. agricultural goods only.
- D. industrial goods only.

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

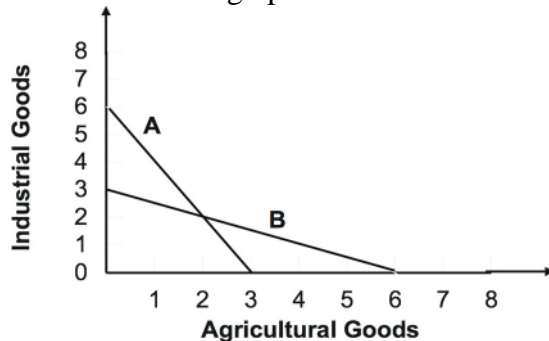
Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Country X is represented by curve A. It must give up $\frac{1}{2}$ an agricultural good to produce 1 additional industrial good. Country Y must give up 2 agricultural goods to produce 1 additional industrial good. Therefore, Country X has a comparative advantage in the production of industrial goods.

[Question]

77. Refer to the graph shown.



If Countries X and Y face the production possibility curves A and B, respectively, Country Y has a comparative advantage in the production of:

- A. neither agricultural goods nor industrial goods.
- B. both agricultural goods and industrial goods.
- C. agricultural goods only.
- D. industrial goods only.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Country X is represented by curve A. It must give up 2 industrial goods to produce 1 additional agricultural good. Country Y must give up 1/2 an industrial good to produce 1 additional agricultural good. Therefore, Country Y has a comparative advantage in the production of agricultural goods.

[Question]

78. Up through the early decades of the 20th century, many countries remained closed to trade, charging high tariffs or imposing strict quotas on imported goods. In 1948, 23 countries joined the General Agreement on Tariffs and Trade (GATT), which sought to set out rules for trade and enhance future negotiations. The reduction in tariffs as a result of GATT probably brought about:

- A. a decrease in consumption.
- B. an increase in consumption.
- C. no change in consumption.
- D. a reduction in domestic production.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: By reducing the barriers to trade, countries probably were able to specialize in the goods for which they had lowest opportunity cost and trade, which would increase consumption for all countries.

[Question]

79. John can clean the house in three hours and do the laundry in four. Jane can clean the house in two hours or do the laundry in two. Can they benefit by specialization and trade?

- A. Neither can benefit because John has nothing to offer.
- B. John could benefit from an exchange, but Jane cannot because she is better at both.
- C. Both can benefit because John has a comparative advantage in laundry.
- D. Both can benefit because John has a comparative advantage in cleaning.

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Calculate the opportunity costs. It costs John 3/4 of a laundry to clean, whereas it costs Jane 1 laundry to clean. The law of comparative advantage implies that even people who have little talent can be productive and useful members of society.

[Question]

80. John and Jane Smith are both economists who are deciding how to split household chores of cooking and cleaning. They discover that John has a comparative advantage in cooking. Does this discovery tell them anything about comparative advantage in cleaning?

- A. No; both or neither may have a comparative advantage in cleaning.
- B. No; either one may have a comparative advantage in cleaning.
- C. Yes; John must also have a comparative advantage in cleaning.
- D. Yes; Jane must have a comparative advantage in cleaning.

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: In a two-good situation, a comparative advantage in one good necessarily implies a comparative disadvantage in the other good.

[Question]

81. Countries gain from trade by producing:

- A. the goods they produce at the highest opportunity cost.
- B. the goods they can produce at the lowest opportunity cost.
- C. where the production possibility curve has a slope of -1 .
- D. all goods in equal amounts.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: The principle that the lowest cost rule is the basis for the gains from trade because countries that produce a good at the lowest cost have a comparative advantage in the production of that good.

[Question]

82. Trade based on comparative advantage benefits:

- A. consumers in all countries.
- B. consumers in some countries but hurts consumers in other countries.
- C. neither producers nor consumers.
- D. producers in all countries but not consumers.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-03

Topic: Trade and Comparative Advantage

Feedback: Trade based on comparative advantage increases the efficiency of production, which results in more goods available to consumers.

[Question]

83. The text argues that the United States has had a comparative advantage in goods and services that:

- A. require creativity and innovation.
- B. are artistic and well crafted.
- C. are mass-produced.
- D. are luxury goods.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-04

Topic: Globalization and the Law of One Price

Feedback: See the text.

[Question]

84. The Apple iPod has been a trendy product. It was designed by Apple in the United States, manufactured in factories in Asia, and sold throughout the world. Many other firms, both American and foreign, began to try to develop alternatives to the iPod. The iPod is an example of American comparative advantage in:

- A. innovation.
- B. mass production.
- C. hand production.
- D. consumerism.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-04

Topic: Globalization and the Law of One Price

Feedback: The text argues that the United States has had a comparative advantage in goods and services that require creativity and innovation. Apple and its iPod seem to be good examples.

[Question]

85. In China many farmers have switched from producing rice to producing vegetables and fruit because they can earn a great deal more money from these specialty crops. Within China there are some who applaud this change, but others worry that China soon may become dependent on rice imports. Even with the low cost of Chinese labor, does the fact that China is importing rice suggest that other countries now have a comparative advantage in rice production?

- A. No; China must have a comparative advantage in rice if it imports rice.
- B. Yes; but only if there are other countries with even cheaper labor.
- C. Yes; countries with more expensive labor can offset that cost with abundant land and farm equipment.

D. Maybe; because rice is a standardized product, the role of innovation and creativity in its production is important.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-04

Topic: Globalization and the Law of One Price

Feedback: Countries with more expensive labor can offset that cost with abundant land and farm equipment.

[Question]

86. According to the law of one price,

A. it is illegal to pay different people different amounts for the same work.

B. it is illegal to charge different people different amounts for the same product.

C. competition, combined with transferable goods and resources, drives the prices of similar goods toward equality.

D. competition, combined with inherent advantages, drives the prices of similar goods toward equality.

Ans: C

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-04

Topic: Globalization and Law of One Price

Feedback: See the definition of law of one price in the text.

[Question]

87. Which of the following is an example of the law of one price?

A. Exchange rates tend to have equivalent values. For example, one euro equals one U.S. dollar.

B. Because people have essentially the same basic needs wherever they live, they tend to buy the same bundle of goods.

C. Because wages are so much lower in China, eventually all U.S. jobs will be outsourced to China, leaving the United States to import all goods at one price.

D. Because their countries have similar institutions, computer programmers in Germany and the United States either are or will be paid about the same.

Ans: D

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-04

Topic: Globalization and Law of One Price

Feedback: The law of one price states that the wages of workers in one country will not differ significantly from the wages of workers in another institutionally similar country. Exchange rates might change to equilibrate these salaries. They are rarely equal on a one-to-one basis.

[Question]

88. Which of the following is an example of the law of one price in action?

- A. Prices are just one of the many factors that firms use when deciding where to locate production.
- B. If one country has a comparative advantage in producing a particular good, another country must have a comparative advantage in producing another good.
- C. Wages in India are lower than wages in the United States, and so firms move their call centers to India. This tends to raise wages in India and depress wages in the United States.
- D. Because most industries in the United States are dominated by one or two firms, the dominant firm sets the price and other firms in the industry follow.

Ans: C

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-04

Topic: Globalization and Law of One Price

Feedback: The law of one price states that the wages of workers in one country will not differ significantly from the wages of workers in another institutionally similar country. If wages do differ, production will shift toward the lower-wage country, tending to raise wages in that country and lower wages in the other. Eventually wages will equalize.

[Question]

89. Which of the following factors will help the United States regain comparative advantages in industries in which it has lost comparative advantages?

- A. The value of the U.S. dollar falls.
- B. The value of the U.S. dollar rises.
- C. The United States imports more goods.
- D. Wages in the United States rise.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-04

Topic: Globalization and Law of One Price

Feedback: If the value of the dollar (U.S. exchange rate) falls, U.S. wages will fall relative to wages in other countries. This will help the United States regain its comparative advantages.

[Question]

90. The morel is a prized mushroom that is often abundant in the Western United States in years after forest fires. Suppose two companies are buying morels from workers willing to find them. One company offers to pay workers \$5.00 per pound, and the other company will pay workers only \$4.00 per pound. Economists would say that:

- A. the company willing to pay only \$4.00 has a comparative advantage in selling morels.
- B. the higher-paying company will attract the more creative and innovative pickers and the lower-paying company will attract the others.

C. the lower-paying company will attract the more creative and innovative pickers and the higher-paying company will attract the others.

D. this situation violates the law of one price and is not likely to persist.

Ans: D

AACSB: Analytic

Bloom's: Analyze

Difficulty: 03 Hard

Learning Objective: 02-04

Topic: Globalization and Law of One Price

Feedback: There would be no reason for anyone to sell mushrooms to the low-paying buyer. It will be forced to raise payments to attract sellers.

[Question]

91. Juan works at Texas Burgers in El Paso and earns \$8.00 per hour. His twin brother Felipe works in Mexico Burgers in Ciudad Juarez just across the border and earns \$3.00 per hour for exactly the same work. An economist looking at this situation sees:

A. an incentive for Felipe to cross the border to get a job and thus reduce the gap.

B. an incentive for Felipe to quit and find another job in Mexico.

C. the tendency of the rich to get richer and the poor to get poorer, widening the gap.

D. evidence that the law of one price has no support in the real world.

Ans: A

AACSB: Analytic

Bloom's: Analyze

Difficulty: 03 Hard

Learning Objective: 02-04

Topic: Globalization and Law of One Price

Feedback: Whenever the law of one price does not hold, there is a profit opportunity. Here it is for Felipe to cross the border and seek work in the higher-paying market. Many Mexicans have done just that.

[Question]

92. If U.S. workers are paid \$16 an hour and Indian workers are paid the equivalent of \$4 an hour but U.S. workers can produce four times as many goods as Indian workers in the same amount of time:

A. workers in the United State are paid too much.

B. production will migrate to the United States.

C. production will migrate to India.

D. there is no reason to move production from the United States to India.

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-04

Topic: Globalization and Law of One Price

Feedback: Because the cost of producing one unit of a good is the same in both countries, there is no reason to move production.

[Question]

93. Adam Smith argued that greater specialization and division of labor are likely to:

- A. improve standards of living.
- B. reduce standards of living.
- C. reduce worker productivity.
- D. replace workers with machines, resulting in massive unemployment.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-04

Topic: Globalization and the Law of One Price

Feedback: Although greater specialization does lead to the use of more machines, Smith did not believe that massive unemployment would be the result. Instead, workers would be reallocated to their most efficient use in a free market environment.

[Question]

94. If the hourly wage of U.S. workers is \$16, the hourly wage of Mexican workers is \$2, and U.S. workers produce 5 times as much output per hour as Mexican workers, then, other things equal, it would be efficient to locate production facilities in:

- A. the United States since the cost per unit of output will be higher.
- B. the United States since the cost per unit of output will be lower.
- C. Mexico since the cost per unit of output will be higher.
- D. Mexico since the cost per unit of output will be lower.

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-04

Topic: Globalization and the Law of One Price

Feedback: U.S. workers are paid 8 times the Mexican wage, but are only 5 times more productive. If U.S. workers were 8 times as productive as Mexican workers, the cost per unit of output in each country would be the same.

[Question]

95. If the hourly wage of U.S. workers is \$16, the hourly wage of Mexican workers is \$2, and U.S. workers produce 9 times as much output per hour as Mexican workers, then, all else equal, it would be efficient to locate production facilities in:

- A. the United States since the cost per unit of output will be higher.
- B. the United States since the cost per unit of output will be lower.
- C. Mexico since the cost per unit of output will be higher.
- D. Mexico since the cost per unit of output will be lower.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-04

Topic: Globalization and the Law of One Price

Feedback: U.S. workers are paid 8 times the Mexican wage, but are 9 times more productive, and so it costs \$16 in the United States to produce the same amount of output in one hour that can be produced for \$18 in Mexico in nine hours.

[Question]

96. If the hourly wage of German workers is \$6, the hourly wage of Canadian workers is \$10, and German workers produce half as much output per hour as Canadian workers, all else equal, it would be efficient to locate production facilities in:

- A. Germany since the cost per unit of output will be higher.
- B. Germany since the cost per unit of output will be lower.
- C. Canada since the cost per unit of output will be higher.
- D. Canada since the cost per unit of output will be lower.

Ans: D

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

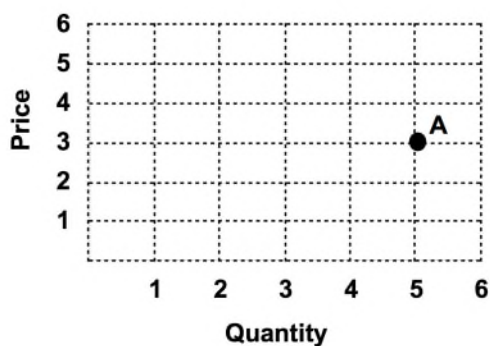
Learning Objective: 02-04

Topic: Globalization and the Law of One Price

Feedback: German workers produce half as much output per hour as Canadian workers, and so it costs \$12 in Germany to produce the same amount of output in two hours that can be produced for \$10 in Canada in one hour.

[Question]

97. Refer to the graph below.



Point A represents a price of:

- A. 3 and a quantity of 3.
- B. 3 and a quantity of 5.
- C. 5 and a quantity of 3.
- D. 5 and a quantity of 5.

Ans: B

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-Appendix

Topic: Two Ways to Use Graphs

Feedback: A point on a coordinate space represents the corresponding numbers on the horizontal and vertical number lines.

[Question]

98. If there is a direct relationship between two variables, the graph relating those two variables will be:

- A. upward-sloping.
- B. downward-sloping.
- C. vertical.
- D. horizontal.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02- Appendix

Topic: Two Ways to Use Graphs

Feedback: If there is a direct relationship between two variables, as one increases, so will the other, making the graph of them upward-sloping.

[Question]

99. If there is an inverse relationship between two variables, the graph relating the two variables will be:

- A. upward-sloping.
- B. downward-sloping.
- C. vertical.
- D. horizontal.

Ans: B

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-Appendix

Topic: Two Ways to Use Graphs

Feedback: If there is an inverse relationship between two variables, as one increases, the other decreases, making the graph of them downward-sloping.

[Question]

100. What kind of relationship exists between the price of gas and the quantity demanded for gas if the quantity demanded for gas falls when the price of gas increases?

- A. direct.
- B. inverse.
- C. normal.
- D. perverse.

Ans: B

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02- Appendix

Topic: Two Ways to Use Graphs

Feedback: If there is an inverse relationship between two variables, as one increases, the other decreases, as is true in this case.

[Question]

101. An inverse relationship occurs between two variables when as one goes:

- A. up the other goes up.
- B. up the other goes down.
- C. up the other does not change.
- D. down the other goes down.

Ans: B

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02- Appendix

Topic: Two Ways to Use Graphs

Feedback: As one goes up the other goes down is how an inverse relationship is defined in the text.

[Question]

102. If the quantity demanded for a good rises as the price falls, the curve representing this relationship will be:

- A. upward-sloping.
- B. downward-sloping.
- C. horizontal.
- D. impossible to determine.

Ans: B

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-Appendix

Topic: Two Ways to Use Graphs

Feedback: An inverse relationship means that as one variable goes up, the other goes down. Thus, a line representing an inverse relationship will be downward-sloping.

[Question]

103. The slope of a line is the:

- A. value on the vertical axis divided by the value on the horizontal axis.
- B. value on the horizontal axis divided by the value on the vertical axis.
- C. change in the value on the vertical axis divided by the change in the value on the horizontal axis.
- D. change in the value on the horizontal axis divided by the change in the value on the vertical axis.

Ans: C

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-Appendix

Topic: Two Ways to Use Graphs

Feedback: The slope of a line is rise over run, or the change in the y-axis value divided by the change in the x-axis value.

[Question]

104. The slope of a line is zero when it is:

A. horizontal.

B. vertical.

C. an upward-sloping line that makes a 45 degree angle with the horizontal and vertical axes.

D. a downward-sloping line that makes a 45 degree angle with the horizontal and vertical axes.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-Appendix

Topic: Two Ways to Use Graphs

Feedback: When a line is horizontal, its rise is always zero, and so its slope is always zero.

[Question]

105. The slope of a line that is vertical is:

A. zero.

B. 1.

C. infinite.

D. dependent on where it intersects the horizontal axis.

Ans: C

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-Appendix

Topic: Two Ways to Use Graphs

Feedback: A vertical line has no run, and so its slope is infinite.

[Question]

106. A downward-sloping line that makes a 45-degree angle with the horizontal and vertical axes has a slope of:

A. zero.

B. 1.

C. -1.

D. infinity.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

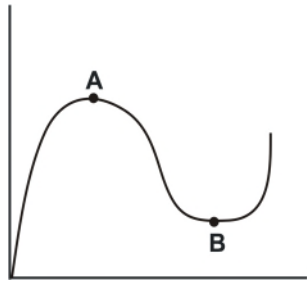
Learning Objective: 02-Appendix

Topic: Two Ways to Use Graphs

Feedback: Along such a line, the rise is the negative of the run, and so the slope is -1 .

[Question]

107. The slopes of the curve at points A and B (maximum and minimum) are:



A. zero and zero.

B. infinity and zero.

C. zero and 1.

D. 1 and zero.

Ans: A

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-Appendix

Topic: Two Ways to Use Graphs

Feedback: As mentioned in the textbook, both maximum and minimum points have slopes of zero.

[Question]

108. In the linear equation $y = mx + b$, m is the:

A. variable on the horizontal axis.

B. variable on the vertical axis.

C. slope.

D. vertical intercept.

Ans: C

AACSB: Reflective Thinking

Bloom's: Remember

Difficulty: 01 Easy

Learning Objective: 02-Appendix

Topic: Equations and Graphs

Feedback: The constant m represents the slope of this curve, which gives the ratio of the change in y for a given change in x .

[Question]

109. In the linear equation $y = mx + b$, an increase in b will:

- A. shift the curve up.
- B. shift the curve down.
- C. cause the curve to become steeper.
- D. cause the curve to become flatter.

Ans: A

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-Appendix

Topic: Equations and Graphs

Feedback: The constant b represents the vertical intercept of the equation. As a consequence, any increase in b will shift the curve up, all else equal.

[Question]

110. What is 25 percent of 200?

- A. 8.
- B. 25.
- C. 50.
- D. 100.

Ans: C

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-Appendix

Topic: Interpreting Graphs about the Real World

Feedback: To find the answer, take the decimal equivalent of 25 percent (i.e., 0.25) and multiply it by 200.

[Question]

111. Consider the following information, which provides percentage change in GDP per year:

	Percentage increase in GDP
2012	-10.0
2013	-5.0
2014	-5.0
2015	4.0
2016	10.0

Given this information, which of the following statements is true?

- A. GDP in 2013 is less than in 2012.
- B. GDP in 2013 is greater than in 2012.
- C. GDP in 2016 is less than in 2015.
- D. GDP in 2015 is greater than in 2014.

Ans: B

AACSB: Reflective Thinking

Bloom's: Understand

Difficulty: 02 Medium

Learning Objective: 02-Appendix

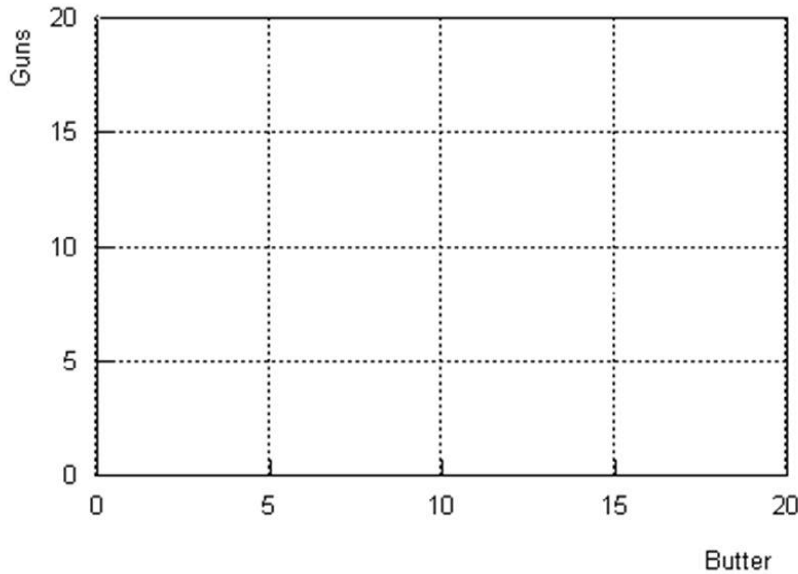
Topic: Interpreting Graphs about the Real World

Feedback: If growth is positive, then the level of GDP has risen. If growth is negative, the level of GDP has fallen. Since GDP declined in 2013, GDP in 2012 must be greater than in 2013.

Chapter 2, The Production Possibility Model, Trade and Globalization

Essay Questions

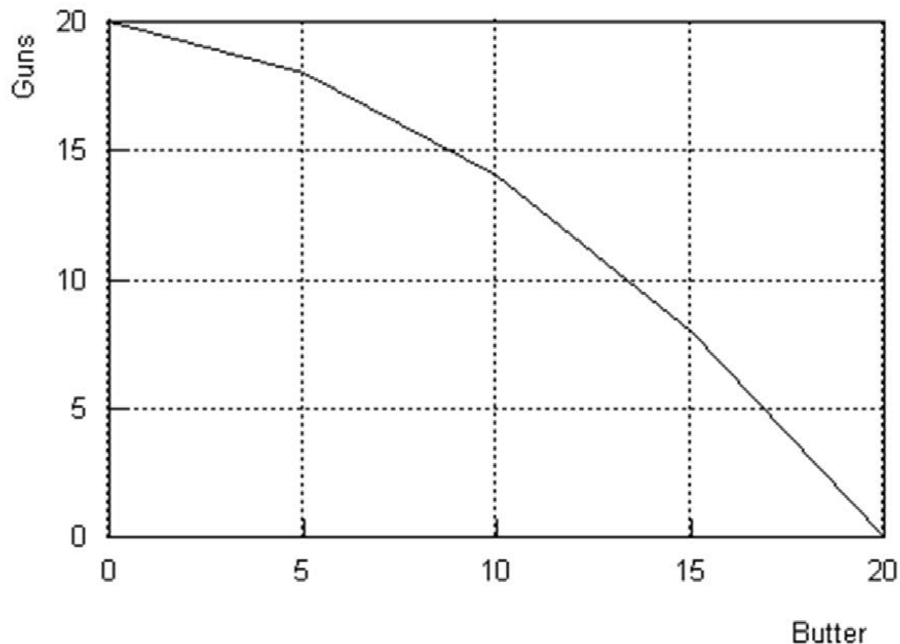
1. The table below is a production possibility table for the fictional country of Myopia. Use it to construct the corresponding production possibility curve in the quadrant below. (Label the axes.)



Guns	Butter
0	20
5	15
10	14
15	8
20	0

- (a) Explain the meaning of a production possibilities curve.**
- (b) What is assumed to be constant when we draw that curve?**
- (c) How is a point on the curve different from (1) a point inside the curve or (2) a point outside the curve?**
- (d) How does this curve illustrate the concept of opportunity cost?**
- (e) How does it illustrate the principle of increasing marginal opportunity cost?**

Answer:



- (a) A production possibilities curve is a curve measuring the maximum combination of outputs that can be obtained from a given number of inputs - using a given technology.
- (b) When we draw the production possibility curve, the amount of inputs and the state of technology are assumed to be fixed
- (c) A point on the production possibility curve is efficient because it corresponds to the maximum amount of butter for any given amount of guns. (1) A point inside the production possibility curve is inefficient because for any given amount of guns, it would be possible to produce more butter. (2) Any point that lies outside the curve is simply not attainable given the available resources and technology.
- (d) The negative slope of the curve illustrates the notion of opportunity cost. In order to get more butter, it is necessary to give up some guns. The amount of guns given up is the opportunity cost of the additional units of butter.
- (e) The increasing slope of the production possibility curve illustrates the principle of increasing marginal opportunity cost. Thus the cost of the first five units of guns is only two units of butter; but the cost of the last five units of guns is eight units of butter.

2. In what way does the notion of comparative advantage help to explain that production possibility curves are bowed outward (the principle of increasing opportunity cost)? Explain your answer in the context of the tradeoff between guns and butter.

Answer:

Some resources are more efficient in producing one product rather than another. Metalworkers would be more efficient in producing guns and farmers would be more efficient in producing butter. When the economy produces only guns, it uses both metalworkers and farmers to do so. When the economy starts to produce some butter, it first takes the farmers out of the armaments industry because removing them has a low opportunity cost in terms of guns. (The farmers have a comparative advantage in producing butter.) However, after all the farmers have left the

armaments industry, further production of butter will require that metalworkers be shifted into farming with large losses in guns and only small gains in butter. (The metal workers had a comparative advantage in producing guns.) Thus the opportunity cost of additional butter, which was very small at the beginning, becomes steadily larger as the nation begins to specialize in producing butter.

3. Most advanced nations have both agricultural sectors and armaments industries. They do not completely specialize in one industry or the other; but generally produce some of both commodities.

(a) State the principle of increasing marginal opportunity cost.

(b) Is this incomplete specialization consistent with the principle of increasing opportunity costs? Explain your answer in the context of the tradeoff between guns and butter.

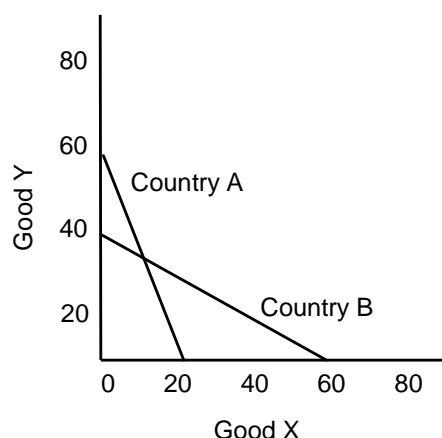
Answer:

(a) The principle of increasing marginal opportunity cost states that in order to get more of something, one must give up ever-increasing quantities of something else.

(b) The fact that nations do not specialize completely but produce a variety of products is consistent with the principle of increasing opportunity costs. Most advanced countries have some resources that have a comparative advantage in producing guns and some resources that have a comparative advantage in producing butter. As a result, the production possibility curve between the two is bowed outward, thus illustrating the principle of increasing marginal opportunity costs. Under these circumstances, complete specialization would be inefficient. It would be more efficient to employ each type of resource in the industry in which it has a comparative advantage.

4. Assume that Belgium and Pakistan have linear production possibilities curves as shown in the graph below. Explain how they can both consume a combination of textiles and chocolate that lies outside their individual production possibility curves.

Answer:



When nations do not trade, their production possibility curves are also their consumption possibility curves. But if they specialize in the product in which their resources have a comparative advantage (e.g. Good Y in the case of Country A and Good W in the case of Country B). If they specialize and produce only that good for which each has a comparative advantage, Country A will produce 60 units of Good Y and Country B will produce 60 of Good X. If they divide the total output equally, each will be able to consume 30 of each good, a combination outside each country's individual production possibility curves. This is because each has specialized in the product in which it had a comparative advantage.

5. What is the “law of one price”? Explain how outsourcing is part of a global process guided by the law of one price.

Answer:

The law of one price states that the wages of workers in one country will not differ significantly from workers of equal skill in institutionally similar countries.

Outsourcing frightens many American workers because wages in developing countries are much lower than those in the United States. Some fear that the United States will not have a comparative advantage in anything. But that is not possible. The United States will have a comparative advantage in innovative goods that pay higher wages. But in time, foreign nations will catch up technologically.

According to the law of one price, the U.S wage premium will have to decline in order to regain our comparative advantage. This is not a happy prospect for American workers; but if the U.S. tries to prevent outsourcing with trade restrictions, U.S. based companies will find that they cannot compete internationally.

Short Answer Questions

6. What does a production possibilities table demonstrate?

Answer:

A production possibilities table is a table that demonstrates a choice's opportunity costs by summarizing (using numbers) what alternative outputs you can achieve with your inputs.

7. What is a production possibilities curve?

Answer:

A production possibilities curve is a curve that shows the maximum combination of outputs that can be obtained from a given number of inputs.

8. What two lessons can you learn from a production possibilities curve?

Answer:

The two lessons you can learn from a production possibilities curve are:

- (a) There is a limit to what you can achieve, given the existing institutions, resources and technology.
- (b) Every choice you make has an opportunity cost. You can get more of something only by giving up something else.

9. What does it mean when we say that a country has comparative advantage in a specific good?

Answer:

A country has a comparative advantage in a good if it can produce that good at a lower opportunity cost than another country can.

10. Can a country gain comparative advantage in some product? Can a country lose that advantage?

Answer:

The answer is yes, in both cases. The availability of factors of production and the technology used to produce goods and services determine the relative cost of production of a good and, thus, can give, or take, a comparative advantage in that product to, or from, a country. An example of comparative advantage gained is the growth of the automobile industry in Japan. Examples of comparative advantage lost are the decline of textile and television manufacturing in the U.S.

11. What is the principle of increasing marginal opportunity cost?

Answer:

The principle of increasing marginal opportunity cost states that in order to get more of something, one must give up ever-increasing quantities of something else.

12. Why do marginal opportunity costs increase as you produce more of a specific good?

Answer:

Marginal opportunity costs increase because not all resources are equally well suited for use in the production of all goods. For example, wood is a better resource for the production of pianos than of cars. In the production of any specific good, as the most suitable resources get used up and less suitable resources are used, the opportunity cost increases.

13. Under what assumption(s) is the production possibilities curve a representation of efficiency points?

Answer:

Points of a PPC are efficient points under the assumption that more is better, which allows us to state that efficiency equals productive efficiency.

14. Does the production possibilities curve tell us if goods are distributed efficiently in a society? Explain.

Answer:

No. The production possibilities curve only show productive efficiency—the production of the most amount of output with a given amount of resources. The production possibilities curve does not answer the questions of who gets what or what the society should produce.

15. What is the argument for laissez faire policy in the context of benefits from trade?

Answer:

When the market coordinates the actions of individuals, all parties benefit from trade. Individuals use their comparative advantage and produce the goods that they bring to the market for trading. Market competition ensures that individuals get the best bargain available in the market and, thus, everybody benefits.

Problems and Applications

16. Consider a farmer's production possibilities curve, with corn measured on the vertical axis, and soybeans on the horizontal axis. Describe the impact of each of the following on the curve:

- (a) The farmer buys or rents more land.**
- (b) A higher yielding variety of corn seed is developed.**
- (c) A hailstorm wipes out half of whatever crops the farmer has planted**
- (d) The government raises price supports for soybeans.**

Answer:

- (a) The entire curve should shift out, since more land could presumably be used to grow either crop.
- (b) The vertical intercept will shift up, as greater amounts of corn can now be grown, but the amount of potential soybean crop remains unchanged.
- (c) The entire curve will shift in towards the origin, though not necessarily by one-half, since the farmer may be able to work the surviving crops more intensively and thus suffer a loss in output of less than 50 percent.
- (d) No effect, since it has changed neither the amount of inputs available nor the technology. If one wishes to argue that the increased price supports change the existing institutions, namely they provide farmers with greater incentives to grow soybeans. Then the curve would shift further out along the horizontal axis, with no change in the vertical intercept.

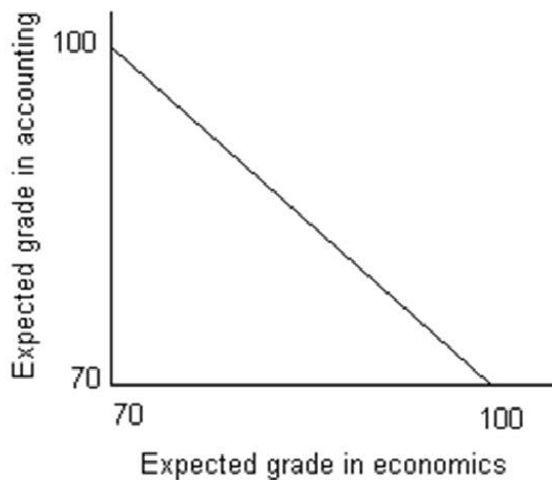
17. Draw a production possibilities curve that indicates how you might divide up 10 hours of study time between your economics and accounting midterm exams. Put expected grade in economics on the horizontal axis and expected grade in accounting on the vertical axis. If you don't study at all, you expect to make a 70 on both exams. For every one additional

hour of studying economics, your exam grade rises by 3 points. The same is true for accounting.

- a. What is the opportunity cost of studying one extra hour for your economics exam?
- b. What is the opportunity cost of studying one extra hour for your accounting exam?
- c. Can the production possibility curve shift? Explain.

Answer:

The diagram below



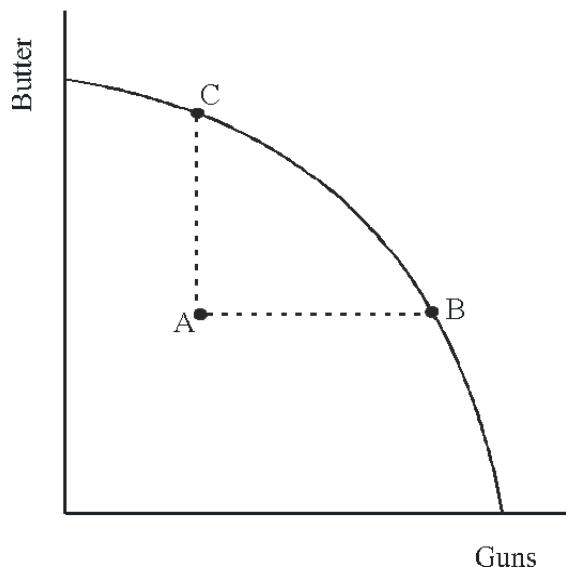
If you allocate all available studying time for economics, you will make a 100 on the test ($70 + 3$ times 10). Similarly, if you don't study economics and allocate all your time to accounting, you will make a 100 on the accounting exam. Therefore, the shape of the production possibilities curve is as shown above.

- (a) The opportunity cost of one hour of studying economics is one hour of studying accounting, which means the loss of 3 points on the accounting exam.
- (b) The opportunity cost of one hour of studying accounting is one hour of studying economics, which means the loss of 3 points on the economics exam.
- (c) Yes, the production possibilities curve may shift. If you allocate more time to studying or if you developed a method that would make your studying time more productive, the curve will shift in such a way that it might be possible to get 100 in both courses. In this case, it would not be a parallel shift.

18. What is productive efficiency? Illustrate it with a production possibilities curve.

Answer:

Productive efficiency means achieving as much output as possible from a given amount of inputs or resources. This can be illustrated using a production possibilities curve by comparing points under the curve with points on the curve. Consider the diagram below that shows the PPC trade-off between guns and butter.



Compare points B and C with point A. Point A is an inefficient combination since the same resources can be used to get more guns without giving up any butter (point B) or more butter without giving up any guns (point C). Points B and C represent efficient production points.

19. Below is the production possibilities table for the country of Lavaland.

% resources devoted to production of tanks	Number of tanks	% resources devoted to production of pizza	Number of pizzas	Row
0	0	100	15	A
20	4	80	14	B
40	7	60	12	C
60	9	40	9	D
80	11	20	5	E
100	12	0	0	F

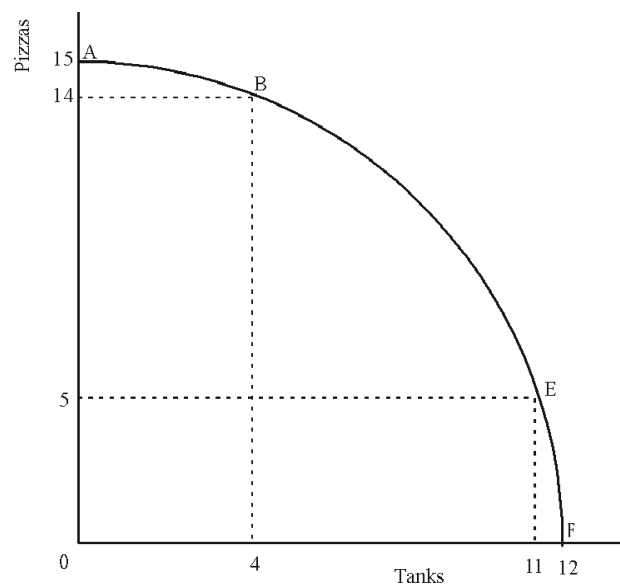
(a) Use the information in the table to draw the production possibilities curve (PPC) for Lavaland. Put tanks on the horizontal axis.

(b) What is the cost to Lavaland of moving from point A to point B on its PPC? And of moving from point E to point F?

(c) What general economic principle is being illustrated by your answers to part (b) above? Explain.

Answer:

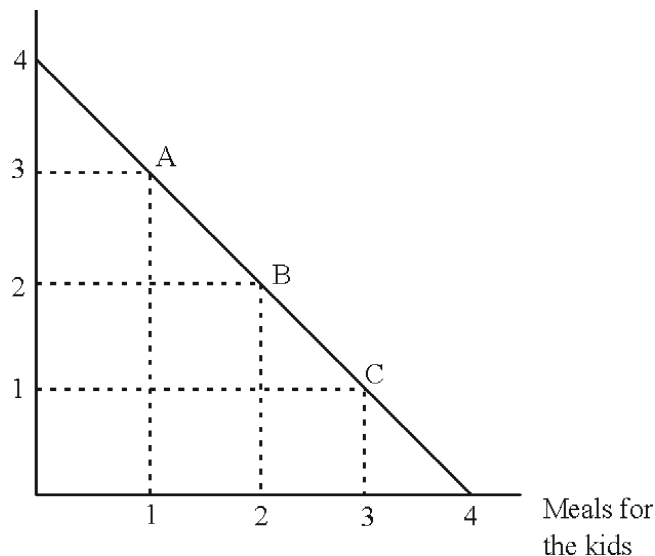
(a) The diagram should look like this:



(b) The opportunity cost of moving from point A to point B is 1 pizza. The cost of moving from point E to point F is 5 pizzas.

(c) In moving from A to B, Lavaland gained 4 tanks. In moving from E to F, Lavaland gained 1 tank. But the cost of attaining one tank was much more with the movement from E to F than it was with the movement from A to B. In moving from A to B each tank required giving up of an average of $1/4$ of a pizza, whereas moving from E to F one tank required giving up 5 pizzas. The increasing cost of another tank (in terms of pizzas foregone) as Lavaland moved from A to F illustrates the principle of increasing marginal opportunity cost.

20. Below is a picture of a production possibilities curve that shows two products Professor Colander (your textbook author) might produce during any given day.



Does this PPC illustrate the principle of increasing marginal opportunity cost? Explain.

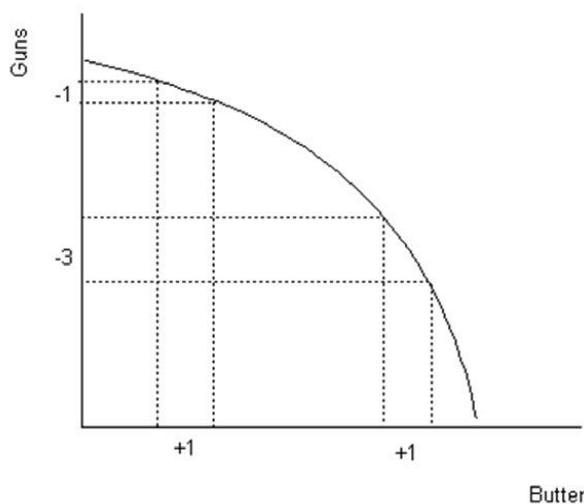
Answer:

This PPC does not illustrate the principle of increasing marginal opportunity cost. To see why not, think about moving along the PPC from points A to B and then from points B to C. For a movement from A to B, the opportunity cost of notes is 1 lecture. For a movement from B to C, the opportunity cost of notes is also 1 lecture. Thus this PPC illustrates a constant opportunity cost. This example demonstrates that the nature (or type) of opportunity cost is directly related to the shape of the PPC.

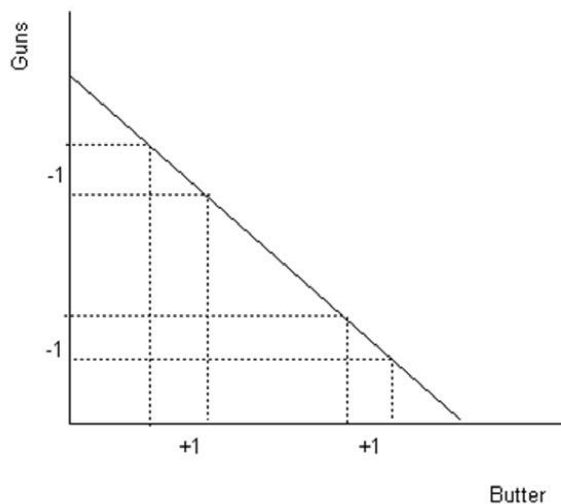
21. Using production possibilities curves, demonstrate increasing marginal opportunity cost and constant marginal opportunity cost.

Answer:

Examine the diagram below. On Graph A, as we produce more and more butter, the opportunity cost of guns rises. The graph shows that at low range of butter production, the opportunity cost of one extra unit of butter is one gun. At high butter production, the opportunity cost of a unit of butter is 3 guns. On graph B, the opportunity cost is constant. Specifically, the opportunity cost of one unit of butter is always one gun, no matter how much butter we are producing.



Graph A



Graph B

22. The Bahamas and India produce both pineapple and rice (both measured in tons). The table below illustrates their production possibilities.

The Bahamas		India	
Rice	Pineapple	Rice	Pineapple
0	100	0	50
5	90	5	47.5
10	80	10	45
15	70	15	42.5
20	60	20	40
25	50	25	37.5
50	0	100	0

- In the Bahamas, what is the opportunity cost of a ton of pineapples, and of a ton of rice?
- In India, what is the opportunity cost of a ton of pineapple, and of a ton of rice?
- Which country has a comparative advantage in the production of pineapple?
- Show how if each country specialized in that good for which it has a comparative advantage and split the resulting production, each would be able to consume more than if they did not trade.

Answer:

(a) In the Bahamas, the opportunity cost of producing 5 more tons of rice is 10 tons of pineapple. Thus, the opportunity cost of producing 1 ton of rice is 2 tons of pineapple. The opportunity cost of producing one ton of pineapple is, therefore, 0.5 tons of rice.

(b) In India, the opportunity cost of producing 5 more tons of rice is 2.5 tons of pineapple. Thus, the opportunity cost of producing 1 ton of rice is 0.5 tons of pineapple. The opportunity cost of producing one ton of pineapple is, therefore, 2 tons of rice.

(c) The Bahamas has a comparative advantage in pineapple (the opportunity cost of 1 ton of pineapple is 0.5 tons of rice as compared to 2 tons of rice in India), and India has a comparative advantage in rice (the opportunity cost of 1 ton of rice is 0.5 tons of pineapple as compared to 2 tons of pineapple in the Bahamas).

(d) The Bahamas would produce 100 tons of pineapple and India would produce 100 tons of rice. Dividing the goods equally each would have 50 tons of pineapple and 50 tons of rice (shown by point A in the graph below), which is a greater combination of goods possible without trade.

