

## Chapter 02

### The Production Possibility Model, Trade, and Globalization

#### True / False Questions

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

True   False

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

True   False

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.

True   False

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.

True   False

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

True   False

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.

True False

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.

True False

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.

True False

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.

True False

## Multiple Choice Questions

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
11. Supposed 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

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
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.

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

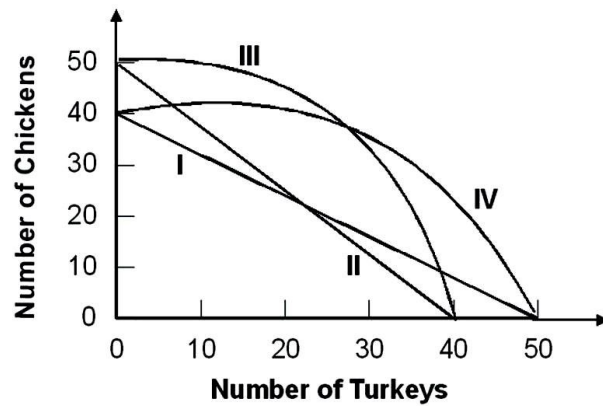
- A. 20 carnations.
- B. 26 carnations.
- C. 31 carnations.
- D. 78 carnations.
15. Consider the table below, in which each production choice represents a point on a production possibility curve.

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.

16. Refer to the graph below.

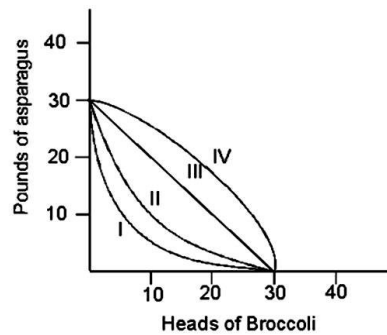


Suppose that the opportunity cost of producing 10 chickens is always 8 turkeys. Given this, the relevant production possibility curve must be:

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

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

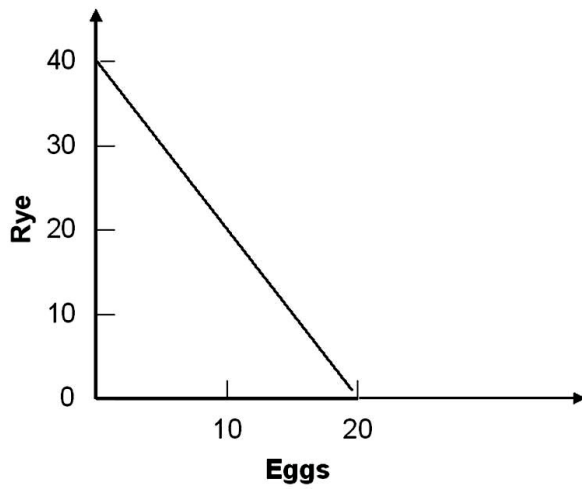
Production Possibility	
broccoli	asparagus
30	0
20	18
10	26
0	30



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

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

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

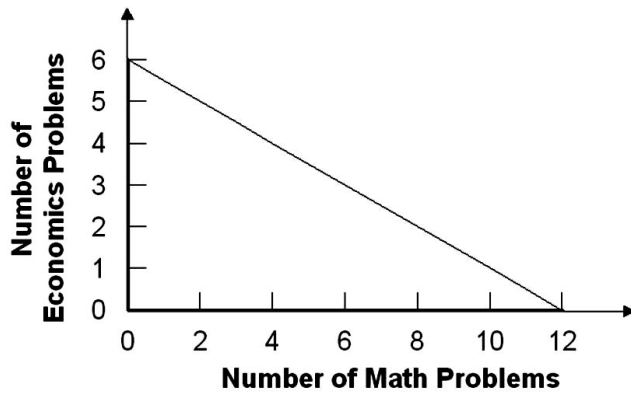


The graph indicates that with the resources and technology it has available, Ricardia:

- 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.



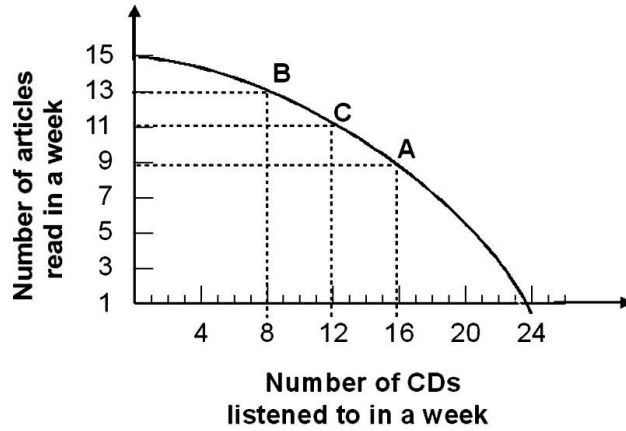
20. Refer to the graph below.



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.

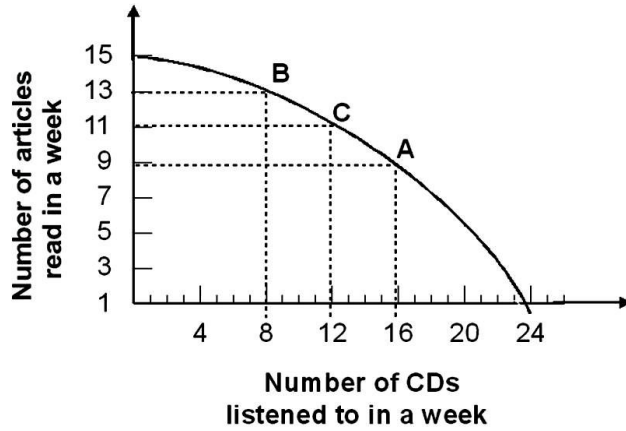
21.



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.

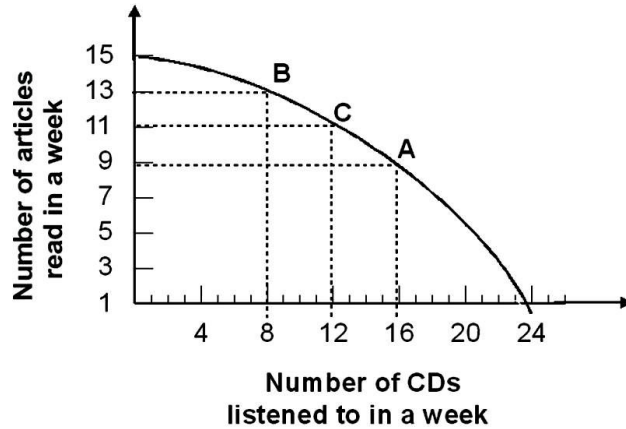
22.



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.

23.



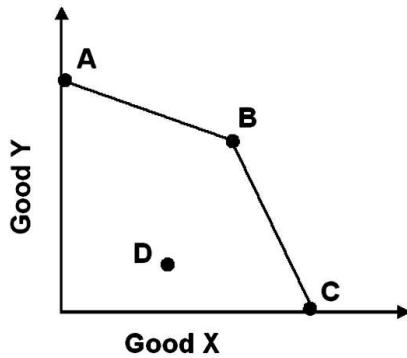
If a production possibility curve representing a trade-off between a grade in English and a grade in math has a negative slope, we know that:

- 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.

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.

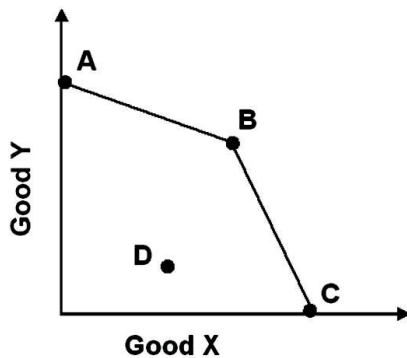
25.



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.

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

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
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.

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.

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.

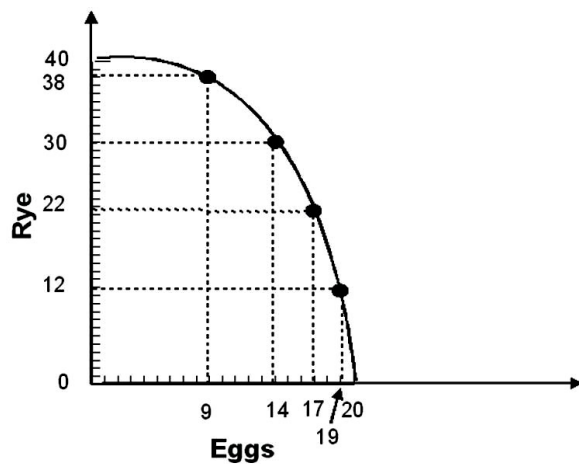
31. To graphically demonstrate the principle of increasing marginal opportunity cost, the production possibility curve must be:

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

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

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

33. Refer to the graph below.

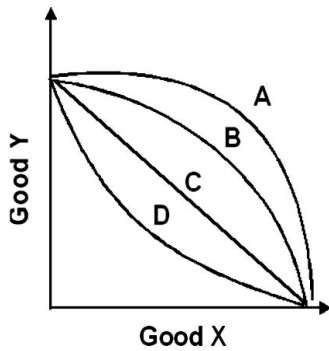


The graph indicates that as more eggs are produced, the marginal opportunity cost of:

- 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.



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

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.

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.

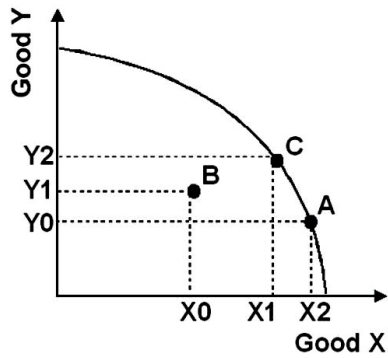
37. The principle of increasing marginal opportunity cost holds in which of the following cases?

- 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.

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.

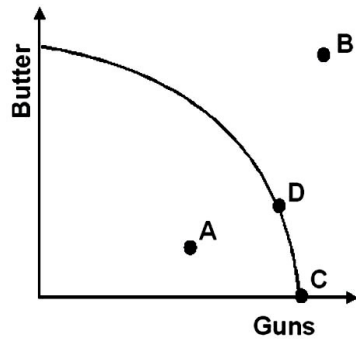
39. Refer to the graph below.



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.

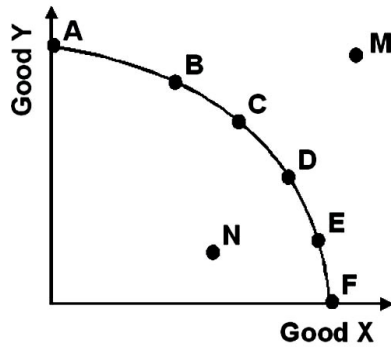
40. Refer to the graph below.



Given the production possibility curve, which point is unattainable?

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

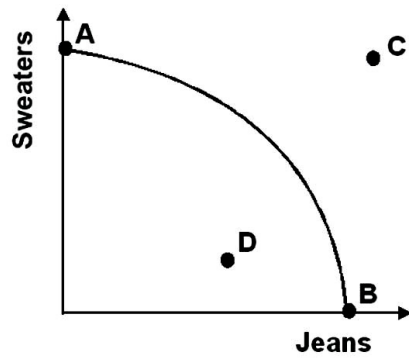
41. Refer to the graph below.



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

42. Refer to the graph below.



Productive inefficiency occurs at what point?

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

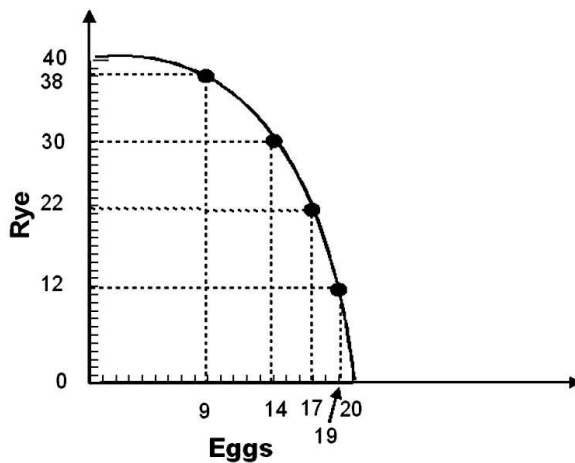
43. The term *efficiency* involves achieving a goal as:

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

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?

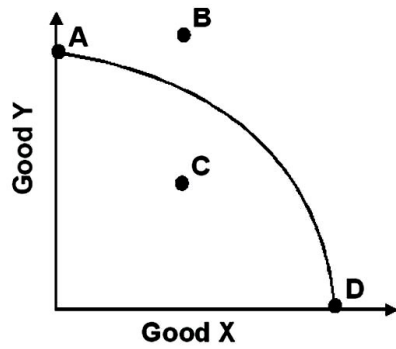
- A. The economy becomes more efficient.
- B. The United States limits imports into the country.
- C. Illegal immigration into the United States is severely limited.
- D. A minimum wage bill is passed.

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.

46. Refer to the graph below.

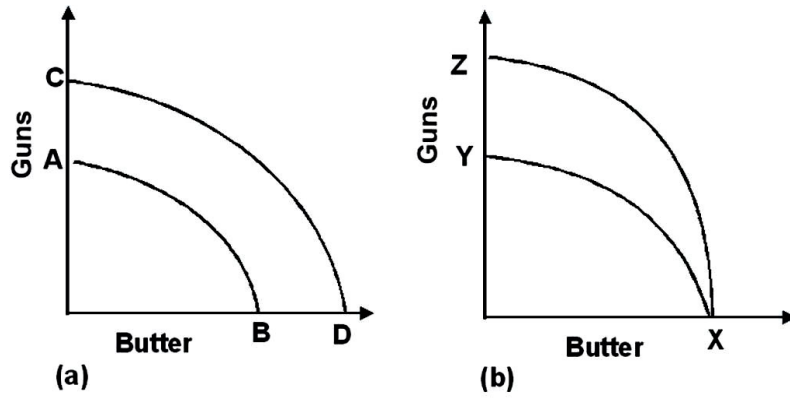


If the production possibility curve shifts along the Good Y axis, which point will remain as a point of efficiency?

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



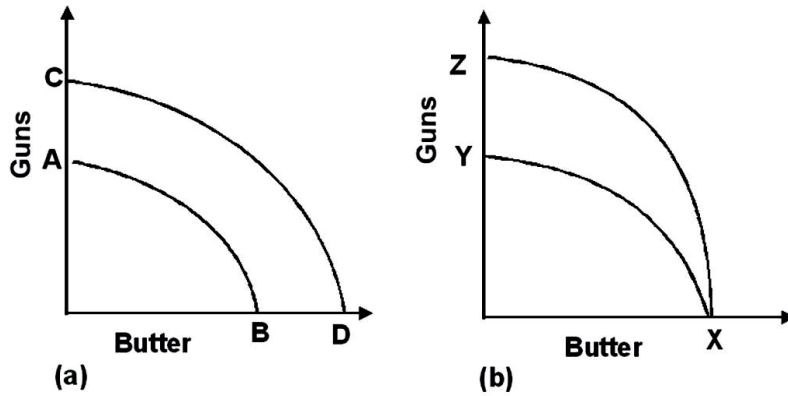
47.



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

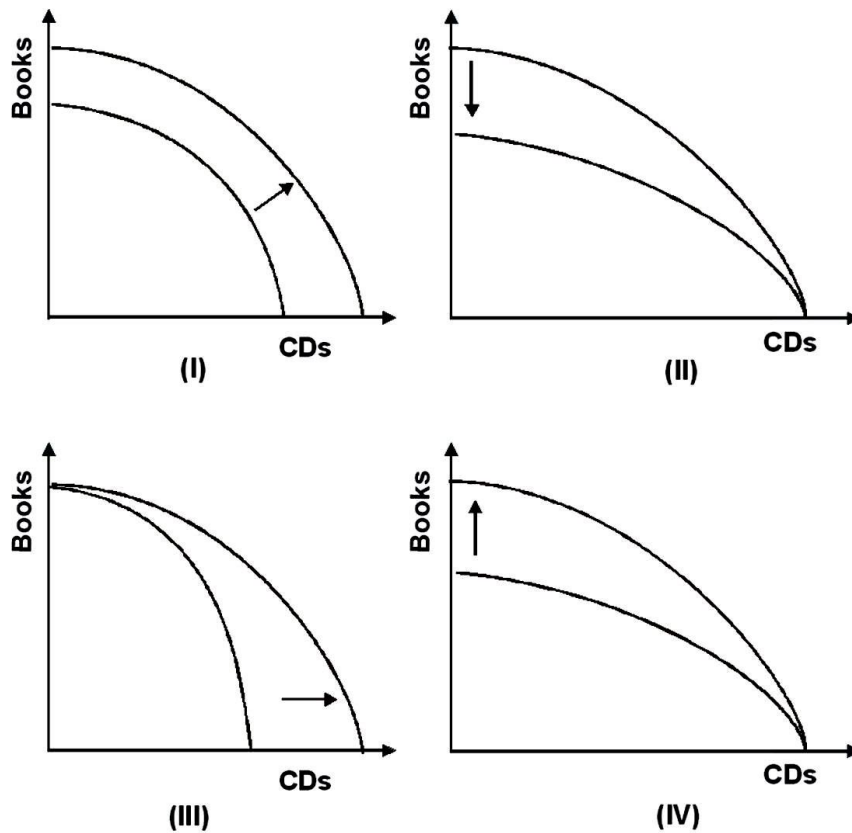
48.



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.

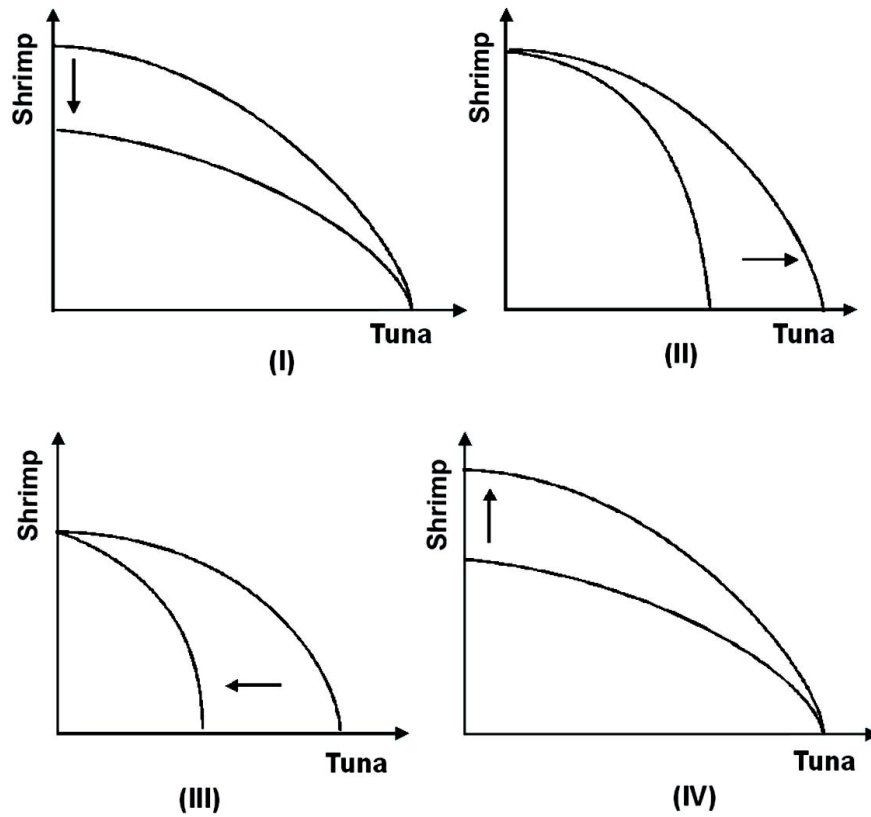
49. Refer to the graph below.



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

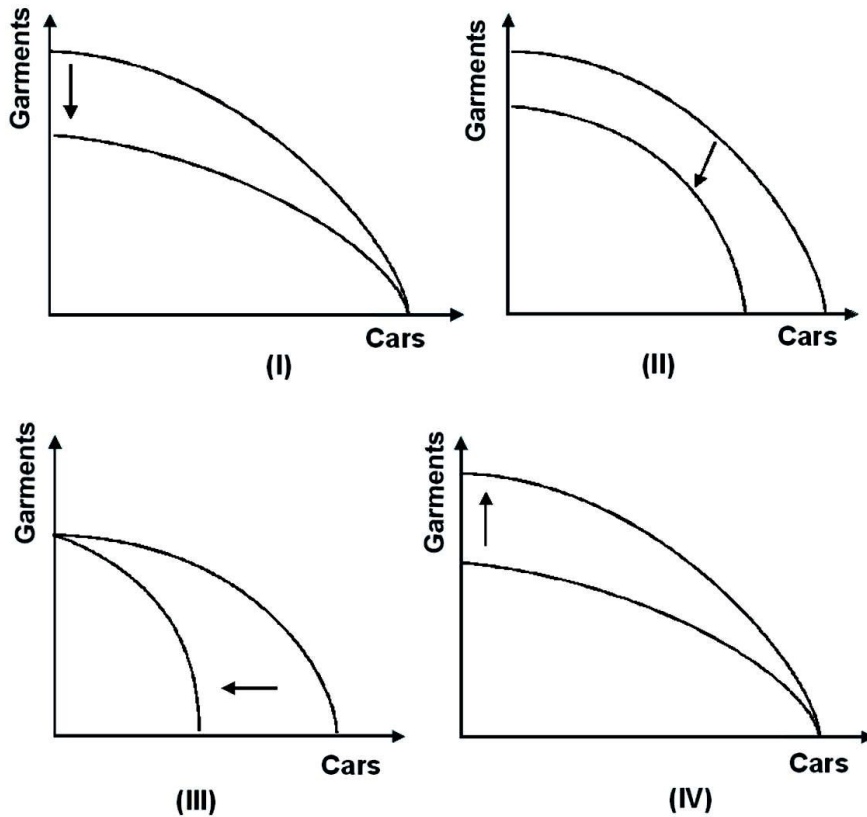
50. Refer to the graph below.



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

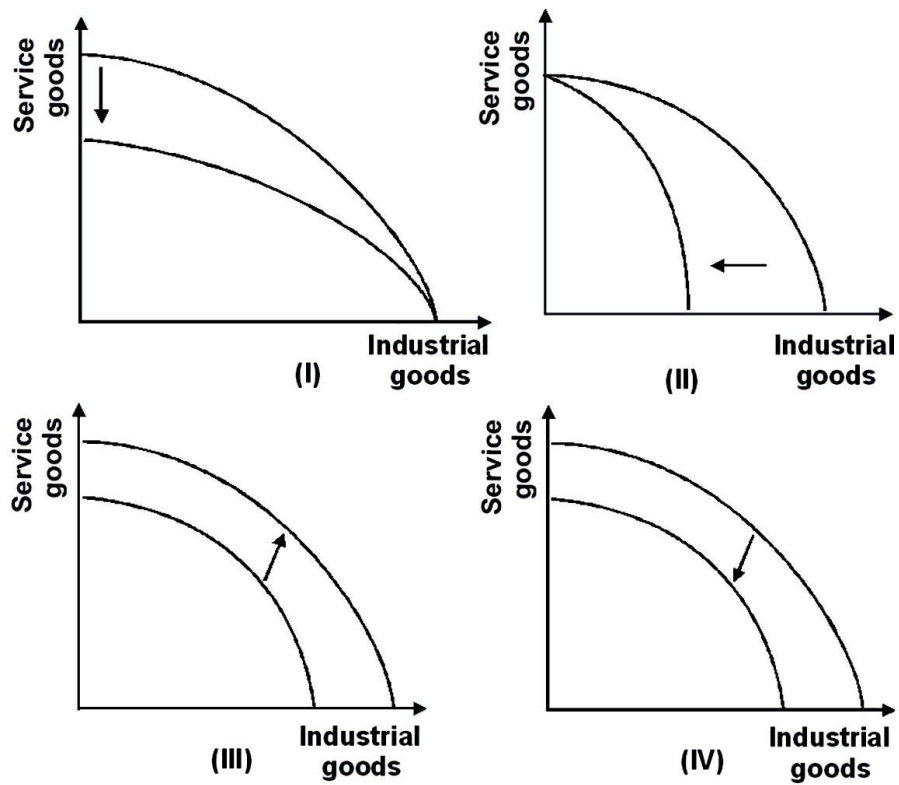
51. Refer to the graph below.



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

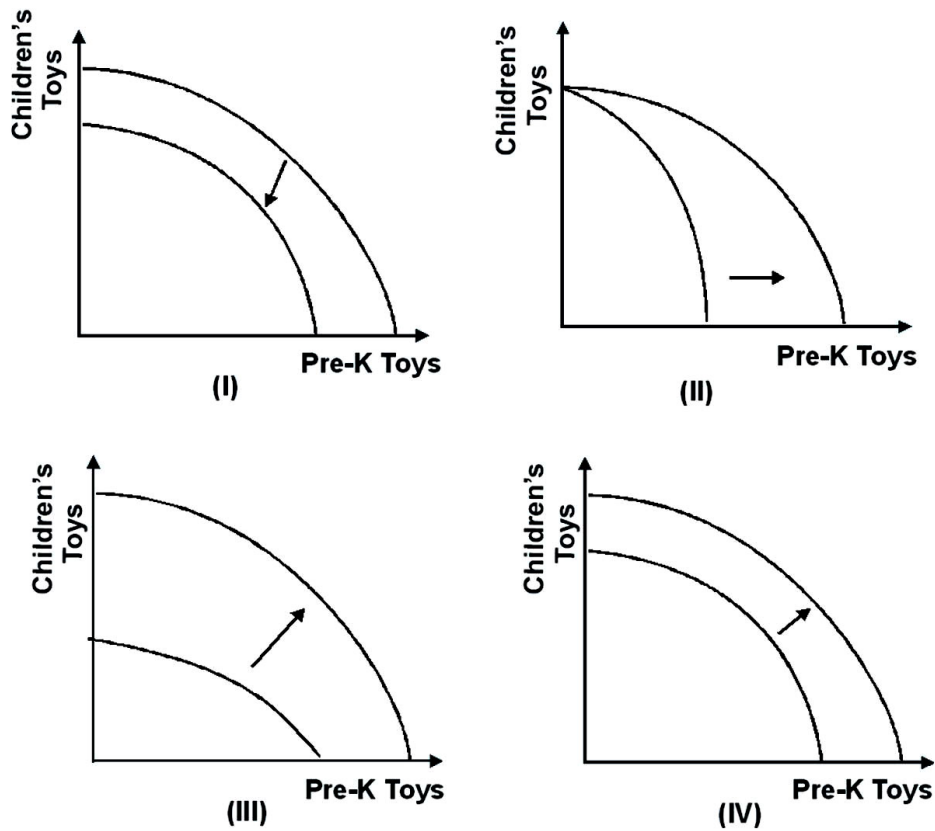
52. Refer to the graph below.



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

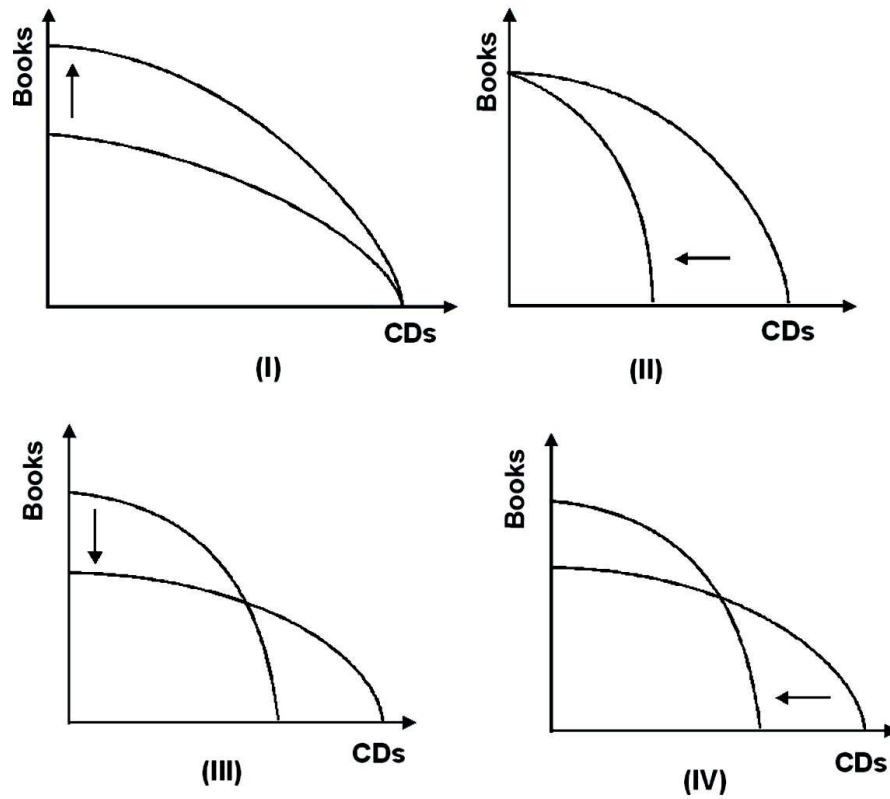
53. Refer to the graph below.



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

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



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.
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.
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.

58. Laissez-faire is:

- A. an economic theorem.
- B. an economic precept.
- C. an inductive model of markets.
- D. a deductive model of markets.

59. 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

60. 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.

61. 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.

62. 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.

63.

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

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

- 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.

64.

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

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

- 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.

65.

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

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

- 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.

66. 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.
67. 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.
68. 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.

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 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.
70. 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.
71. 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.

72. 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.

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

<u><b>Legoland</b></u>		<u><b>Elmoland</b></u>	
<b>Chocolate</b>	<b>Textiles</b>	<b>Chocolate</b>	<b>Textiles</b>
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.

74. 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

75.

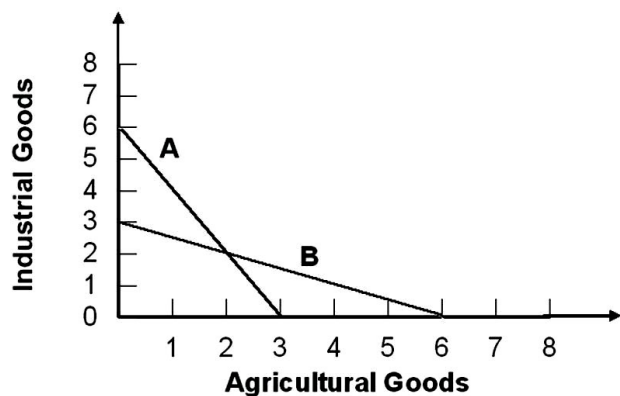
<u>Northland</u>		<u>Southland</u>	
Apples	Bananas	Apples	Bananas
30	0	30	0
20	5	20	20
10	10	10	40
0	15	0	60

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?

- 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.



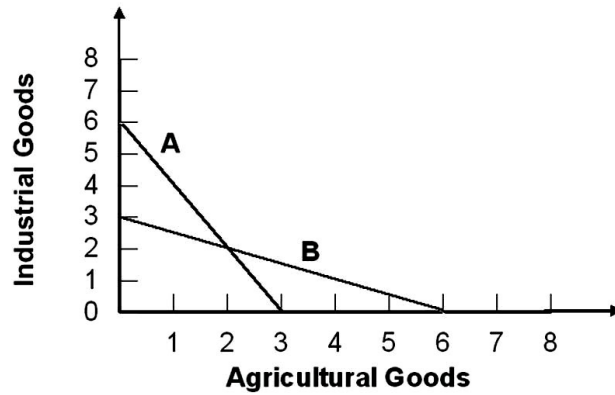
76.



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.

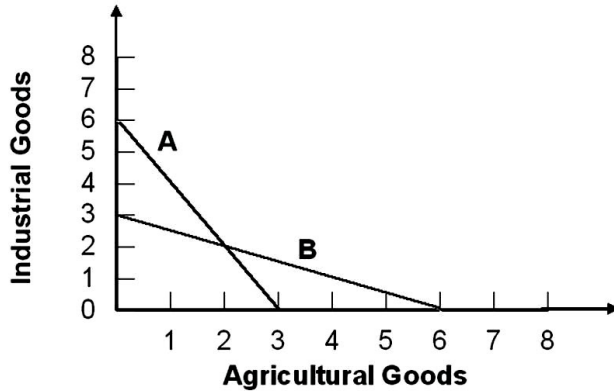
77.



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.

78.



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.

79. Up through the early decades of the 20<sup>th</sup> 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.

80. 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.
81. 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.
82. 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.

83. 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.

84. 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.

85. 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.

86. 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.
87. When the exchange rate value of the dollar rises and other things stay the same, what happens to relative wage rates between the United States and other countries?
- A. They rise.
  - B. They fall.
  - C. They don't change.
  - D. It's impossible to say.
88. In the years after the introduction of the European euro currency, the price of the euro rose from about  $\$1.1 = 1 \text{ €}$  to  $\$1.30 = 1 \text{ €}$ . In terms of wage rates, this rise in the price of the euro:
- A. lowered U.S. wages relative to European wages.
  - B. lowered European wages relative to U.S. wages.
  - C. raised both European and U.S. wages.
  - D. lowered both European and U.S. wages.

89. 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. there is a tendency for wages to equalize across institutionally similar countries.

90. 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.

91. 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.

92. 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.
93. 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.
94. 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.



95. 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.

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

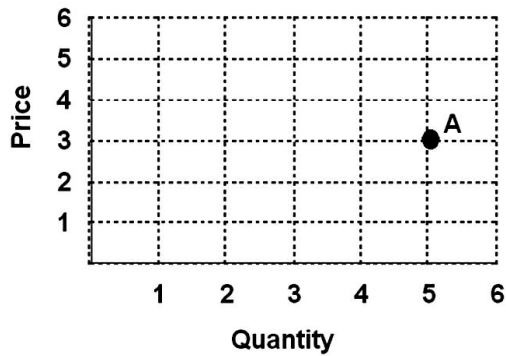
- A. improve standards of living.
- B. reduce standards of living.
- C. reduce worker productivity.
- D. replace workers with machines, resulting in massive unemployment.

97. 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.

98. 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.
99. 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.

100. 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.

101. 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.

102. 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.

103. 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.

104. 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.

105. 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.

106. 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.

107. 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.

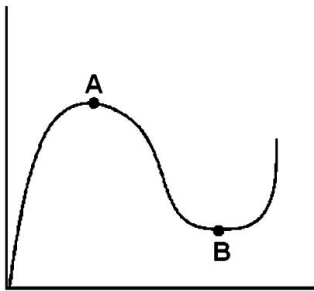
108. The slope of a line that is vertical is:

- A. zero.
- B. 1.
- C. infinite.
- D. dependent on where it intersects the horizontal axis.

109. 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.

110. 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.

111. 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.

112. 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.

113. What is 25 percent of 200?

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

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

<b>Percentage increase in GDP</b>	
<b>2009</b>	<b>-10.0</b>
<b>2010</b>	<b>-5.0</b>
<b>2011</b>	<b>-5.0</b>
<b>2012</b>	<b>4.0</b>
<b>2013</b>	<b>10.0</b>

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

- A. GDP in 2010 is less than in 2009.
- B. GDP in 2010 is greater than in 2009.
- C. GDP in 2013 is less than in 2012.
- D. GDP in 2012 is greater than in 2011.



## Chapter 02 The Production Possibility Model, Trade, and Globalization

### Answer Key

#### True / False Questions

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

**TRUE**

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Production Possibility Model*

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

**FALSE**

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Production Possibility Curve*

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.

**TRUE**

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Production Possibility Curve*

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.

**FALSE**

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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

TRUE

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Productive Efficiency*

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.

TRUE

See the definition of comparative advantage in the text.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Comparative Advantage*

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.

**TRUE**

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

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.

**FALSE**

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

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.

**FALSE**

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Law of One Price*

### Multiple Choice Questions

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

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

*AACSB: Analytic*

*Blooms: Remember*

Difficulty: 1 Easy

Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.

Topic: Production Possibility Table

11. Supposed 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

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.

AACSB: Reflective Thinking

Blooms: Understand

Difficulty: 1 Easy

Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.

Topic: Opportunity Cost

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

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*

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.

Producing an extra 30 Umies means not producing 20 (40 - 20) Ums.

*AACSB: Analytic*

*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*



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.

Producing an extra 40 roses means not producing 31 (109 - 78) carnations.

*AACSB: Analytic*

*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*

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.

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.

*AACSB: Analytic*

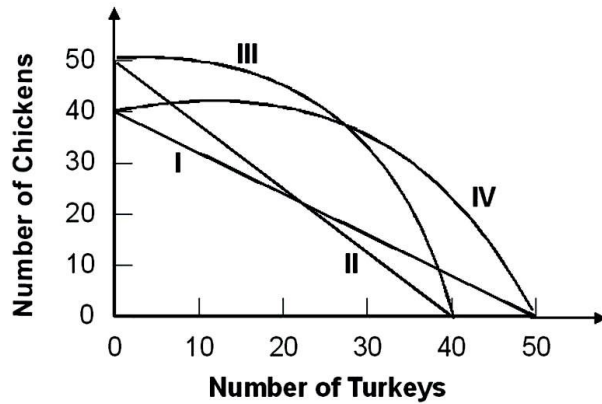
*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Production Possibility Curve*

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.

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

*AACSB: Reflective Thinking*

*Blooms: Understand*

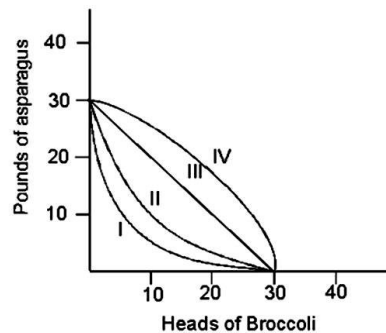
*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Production Possibility Curve*

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

<u>Production Possibility</u>	
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

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Production Possibility Curve*

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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Production Possibility Curve*

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.

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).

*AACSB: Analytic*

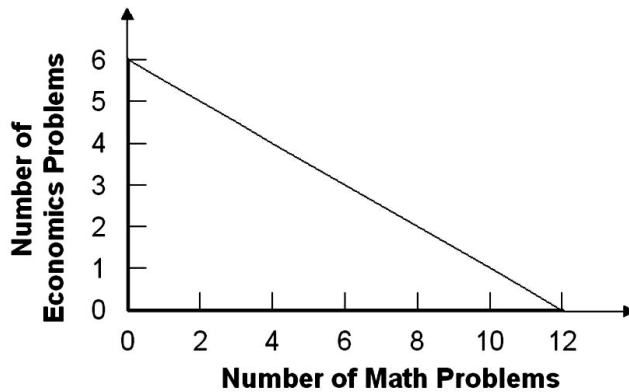
*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Production Possibility Curve*

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.

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

*AACSB: Analytic*

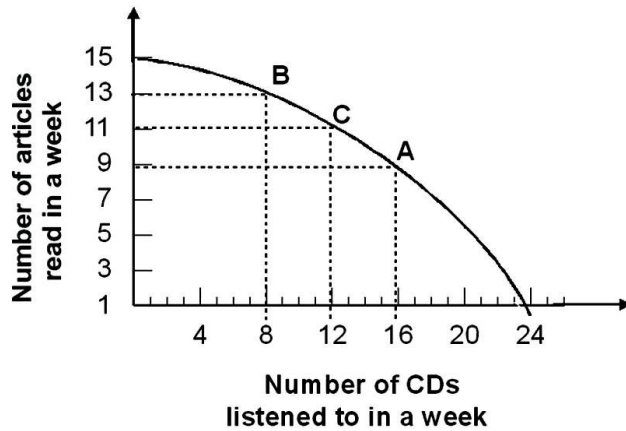
*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*

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.

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.

*AACSB: Analytic*

*Blooms: Understand*

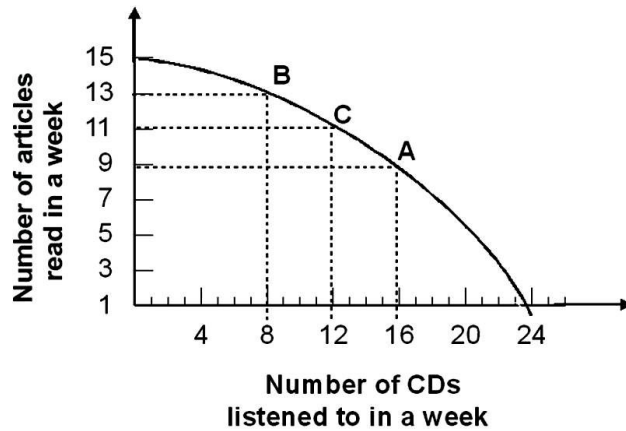
*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*



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.

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

*AACSB: Analytic*

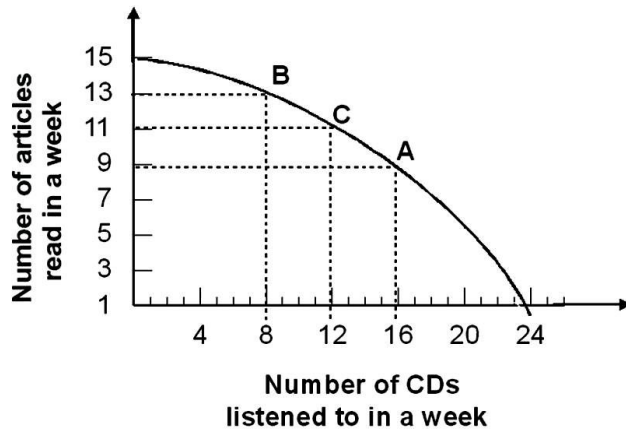
*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*

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.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*

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.

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.

*AACSB: Analytic*

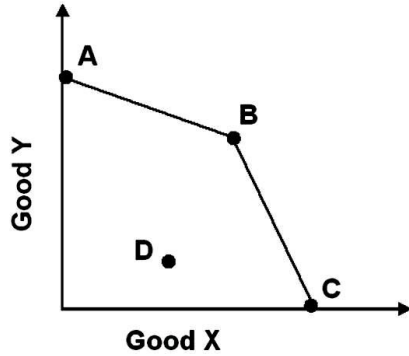
*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*

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.

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 changes only when we move from one segment to the other.

*AACSB: Reflective Thinking*

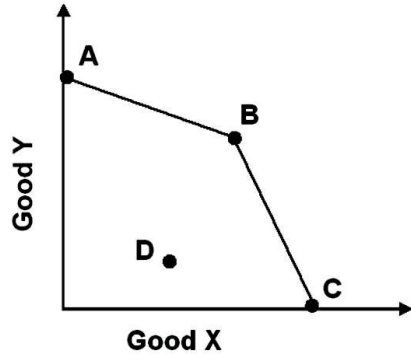
*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*

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

Efficiency is increased when a given quantity of inputs is reallocated in such a way as to produce more of each good.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Productive Efficiency*

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

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.

*AACSB: Analytic*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*

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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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.

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

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Opportunity Cost*



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.

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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

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

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.

*AACSB: Analytic*

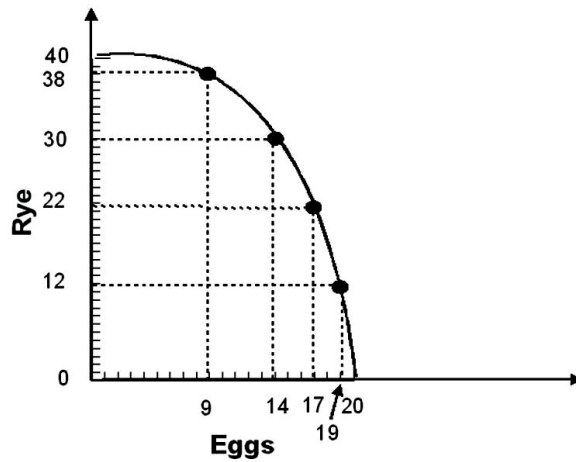
*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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.

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.

*AACSB: Reflective Thinking*

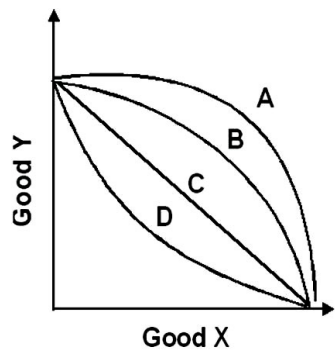
*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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

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

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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.

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

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-01 Demonstrate trade-offs with a production possibility curve.*

*Topic: Principle of Increasing Marginal Opportunity Cost*

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.

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.

*AACSB: Analytic*

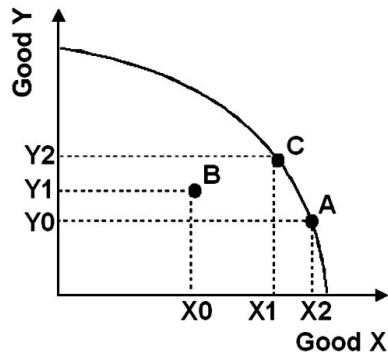
*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Productive Efficiency*

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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

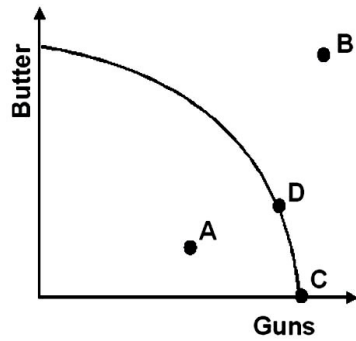
*Difficulty: 3 Hard*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Productive Efficiency*



40. Refer to the graph below.



Given the production possibility curve, which point is unattainable?

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

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.

*AACSB: Analytic*

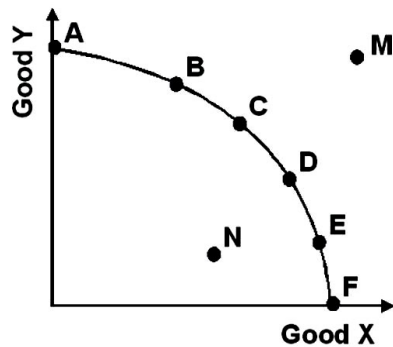
*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Production Possibility Curve*

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

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.

*AACSB: Analytic*

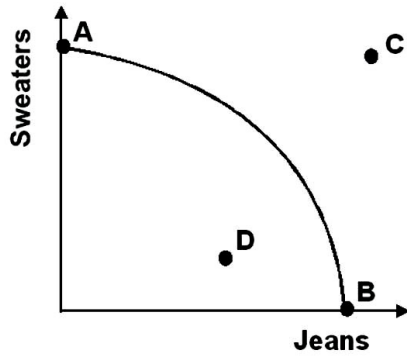
*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Productive Efficiency*

42. Refer to the graph below.



Productive inefficiency occurs at what point?

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

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Inefficiency*

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.

See the definition of efficiency in the text.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Efficiency*

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.

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

*AACSB: Reflective Thinking*

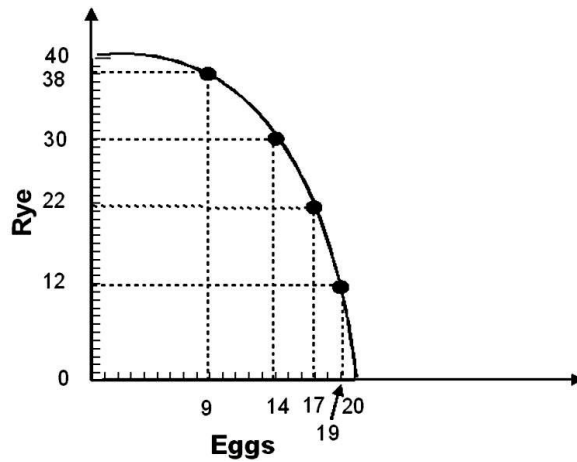
*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Productive Efficiency*

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.

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.

*AACSB: Analytic*

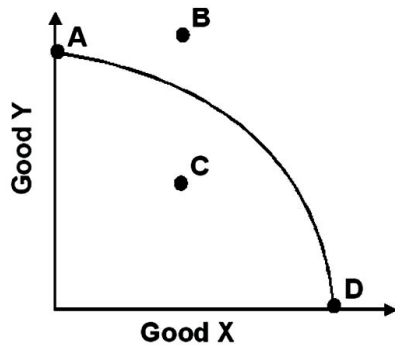
*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Productive Efficiency*

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

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.

*AACSB: Analytic*

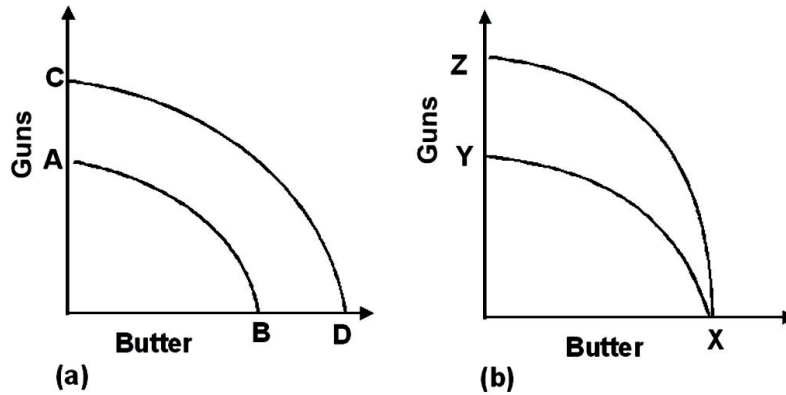
*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Productive Efficiency*

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

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.

*AACSB: Reflective Thinking*

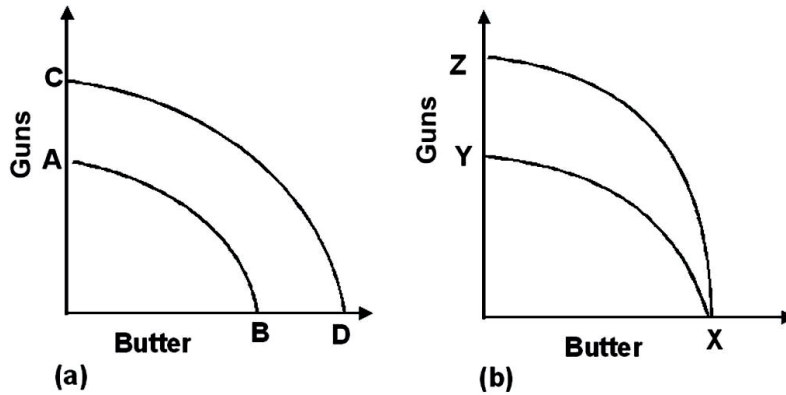
*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Shift in the Production Possibility Curve*

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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

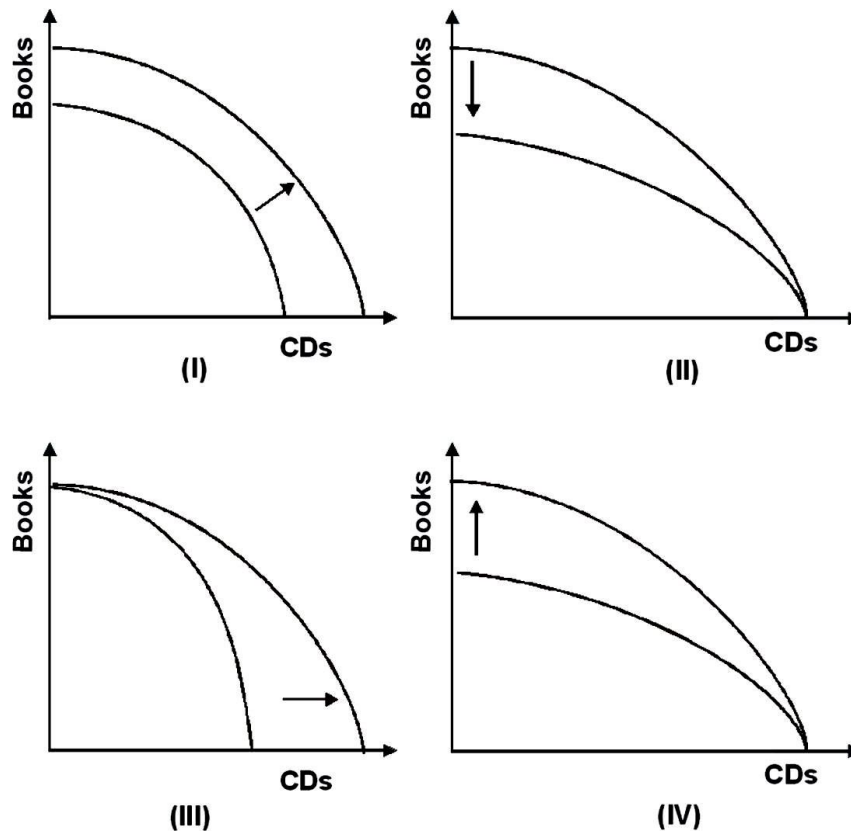
*Difficulty: 1 Easy*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Shift in the Production Possibility Curve*



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

Since the technological development will increase the production of books but not affect the production of CDs, the correct shift is IV.

*AACSB: Reflective Thinking*

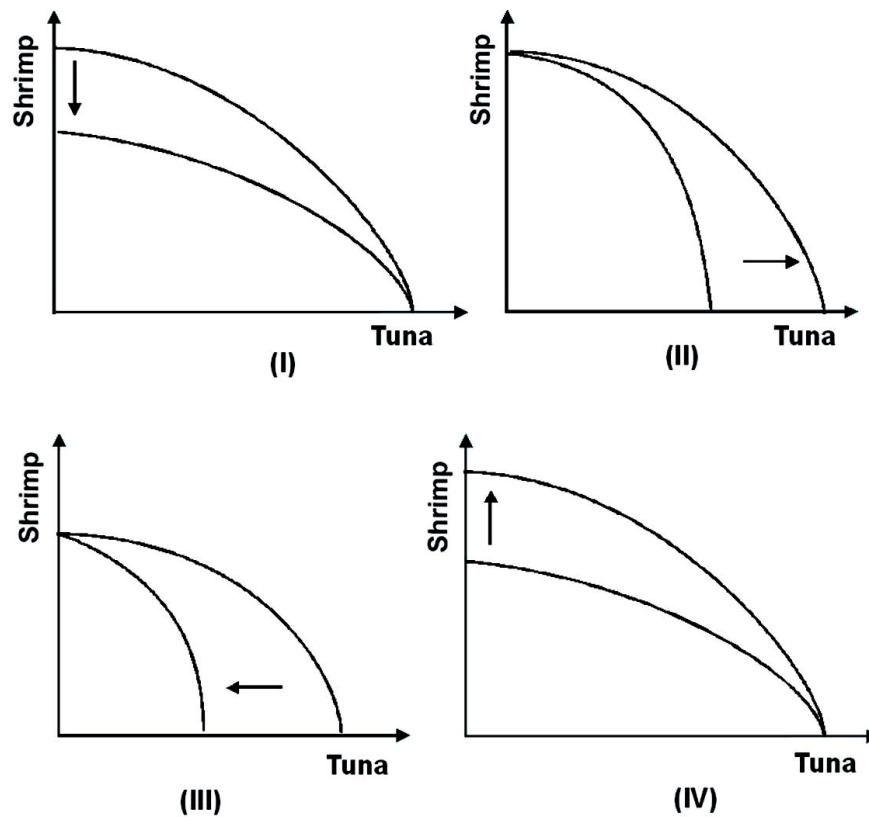
*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Shift in the Production Possibility Curve*

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

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

*AACSB: Reflective Thinking*

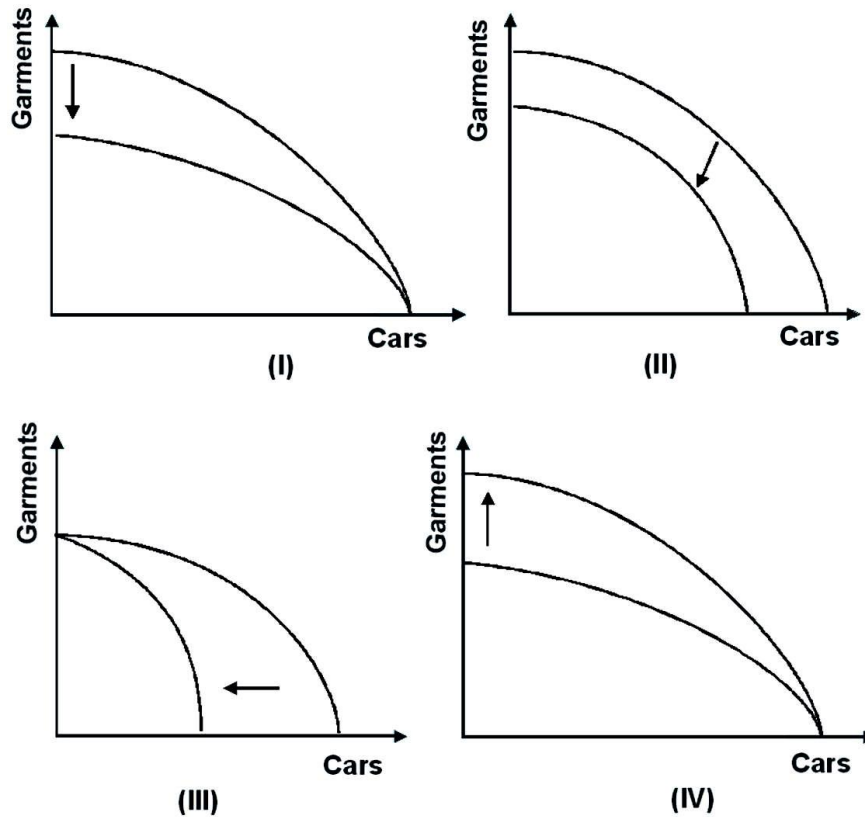
*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Shift in the Production Possibility Curve*

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

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

*AACSB: Reflective Thinking*

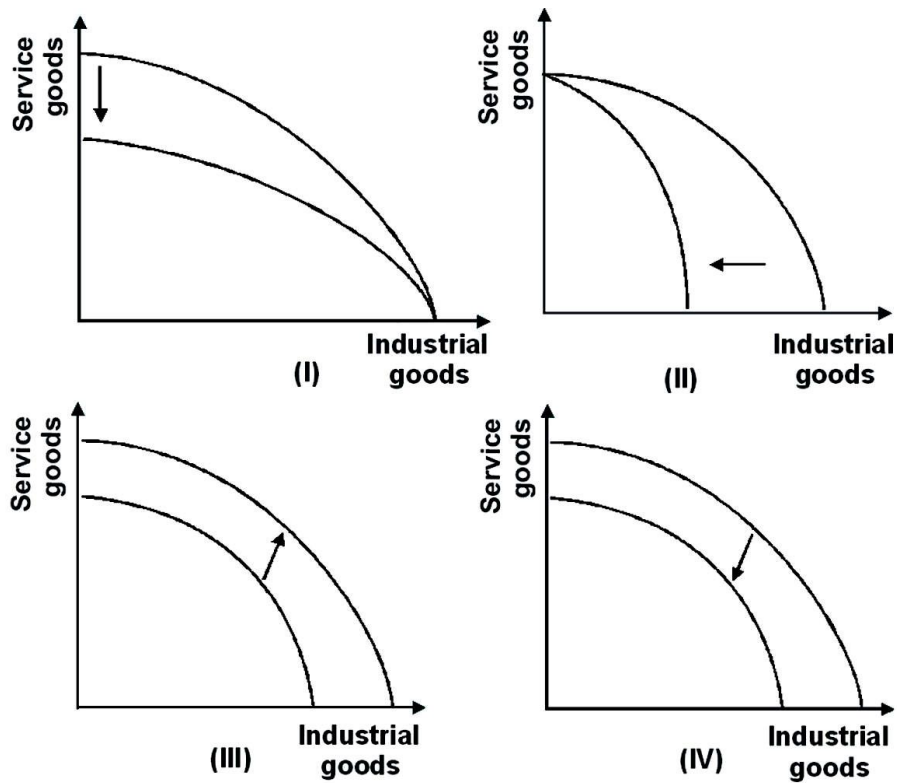
*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Shift in the Production Possibility Curve*

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

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

*AACSB: Reflective Thinking*

*Blooms: Understand*

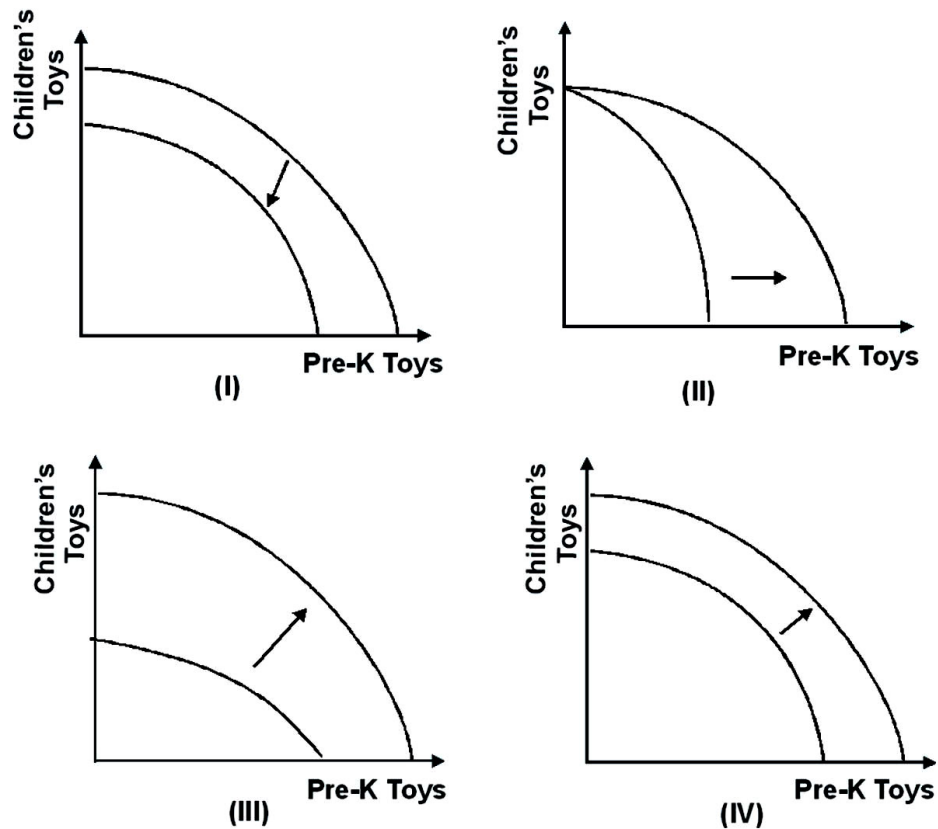
*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Shift in the Production Possibility Curve*



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

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.

*AACSB: Reflective Thinking*

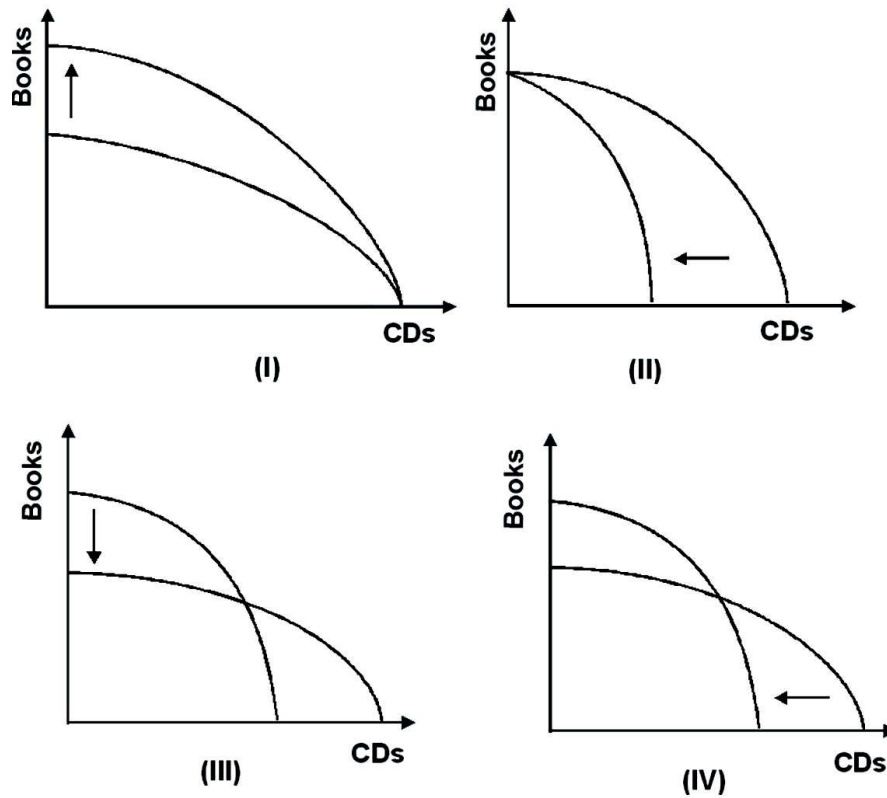
*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Shift in the Production Possibility Curve*

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

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Shift in the Production Possibility Curve*

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.

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Comparative Advantage*

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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Comparative Advantage*

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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Comparative Advantage*

58. Laissez-faire is:

- A. an economic theorem.
- B. an economic precept.
- C. an inductive model of markets.
- D. a deductive model of markets.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Benefits of Trade*

59. 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

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Benefits of Trade*

60. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Benefits of Trade*

61. 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.

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.

*AACSB: Analytic*



*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

62. 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.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

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

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

- 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Opportunity Cost*

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

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

- 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-02 Relate the concepts of comparative advantage and efficiency to the production possibility curve.*

*Topic: Opportunity Cost*

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

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

- 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Comparative Advantage*

66. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

67. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

68. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

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 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*



70. 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

71. 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

72. 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

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

<b><u>Legoland</u></b>		<b><u>Elmoland</u></b>	
<b>Chocolate</b>	<b>Textiles</b>	<b>Chocolate</b>	<b>Textiles</b>
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.

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

*AACSB: Analytic*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

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

<b><u>Legoland</u></b>		<b><u>Elmoland</u></b>	
<b>Chocolate</b>	<b>Textiles</b>	<b>Chocolate</b>	<b>Textiles</b>
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

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

*AACSB: Analytic*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

75.

<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

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?

- 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.

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

*AACSB: Analytic*

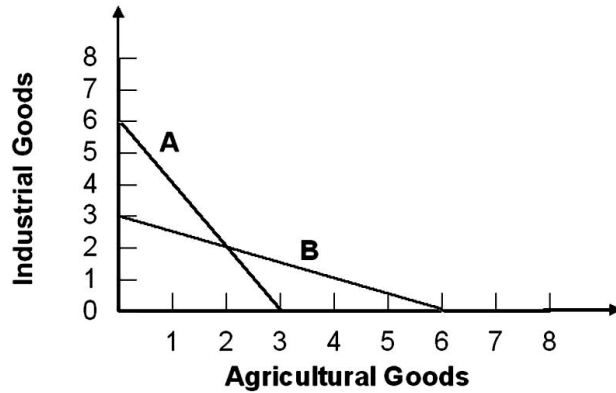
*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

76.



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.

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.

*AACSB: Reflective Thinking*

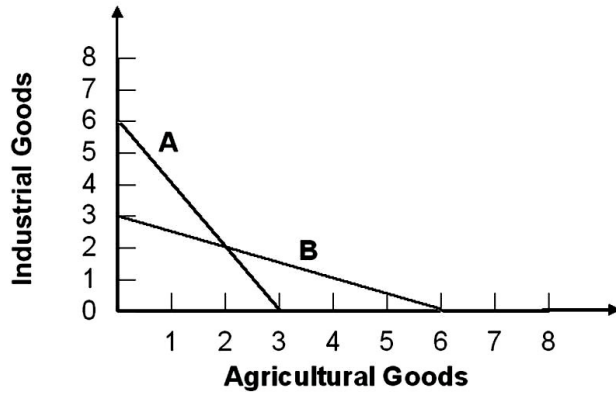
*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

77.



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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

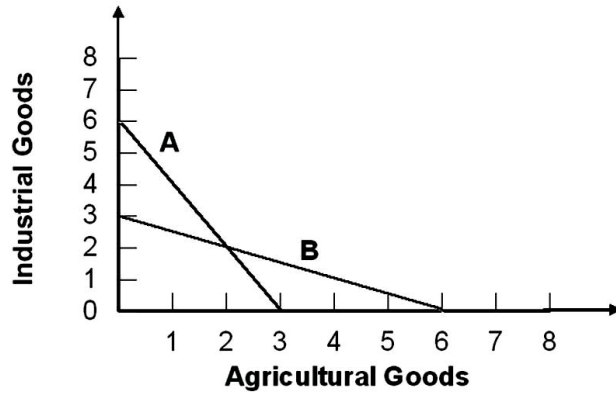
*Difficulty: 3 Hard*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*



78.



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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

79. Up through the early decades of the 20<sup>th</sup> 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

80. 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.

Calculate the opportunity costs. It costs John  $\frac{3}{4}$  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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

81. 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.

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

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how, through comparative advantage and trade, countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

82. 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.

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

83. 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.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-03 State how; through comparative advantage and trade; countries can consume beyond their individual production possibilities.*

*Topic: Comparative Advantage*

84. 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.

See the text.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Comparative Advantage*

85. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Comparative Advantage*

86. 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.

The text stresses that labor costs are only one part of what determines comparative advantage. In the case of rice, China probably should be importing a lot of its rice so that it can better use its agricultural resources in production that requires large inputs of labor.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Comparative Advantage*

87. When the exchange rate value of the dollar rises and other things stay the same, what happens to relative wage rates between the United States and other countries?

- A. They rise.
- B. They fall.
- C. They don't change.
- D. It's impossible to say.

When the value of the dollar rises, wages in the United States can buy more foreign goods. Therefore, relative wages in the United States have risen.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Exchange Rates*

88. In the years after the introduction of the European euro currency, the price of the euro rose from about  $\$1.1 = 1 \text{ €}$  to  $\$1.30 = 1 \text{ €}$ . In terms of wage rates, this rise in the price of the euro:

- A. lowered U.S. wages relative to European wages.
- B. lowered European wages relative to U.S. wages.
- C. raised both European and U.S. wages.
- D. lowered both European and U.S. wages.

Prices and wages in different currencies cannot be compared without an exchange rate. An increase in the value of the euro raises wages in Europe relative to those in the United States.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 3 Hard*



89. 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. there is a tendency for wages to equalize wages across institutionally similar countries.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Law of One Price*

90. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Law of One Price*

91. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Law of One Price*

92. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 1 Easy*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Exchange Rates*

93. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Law of One Price*

94. 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.

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.

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Law of One Price*

95. 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.

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

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Law of One Price*

96. 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.

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 2 Medium*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Globalization*

97. 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Globalization*



98. 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.

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.

*AACSB: Reflective Thinking*

*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Globalization*

99. 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.

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.

*AACSB: Reflective Thinking*

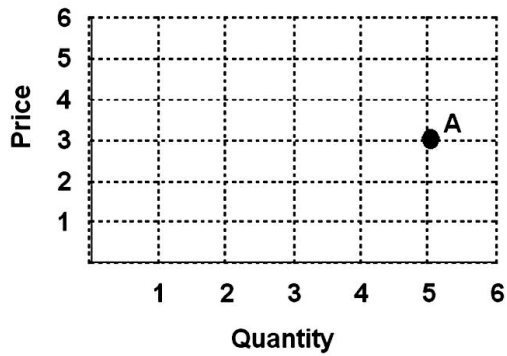
*Blooms: Understand*

*Difficulty: 3 Hard*

*Learning Objective: 02-04 Explain how globalization is guided by the law of one price.*

*Topic: Globalization*

100. 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.

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

*AACSB: Analytic*

*Blooms: Understand*

*Difficulty: 1 Easy*

*Learning Objective: 02-A*

*Topic: Point*

101. 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.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-A*

*Topic: Direct Relationship*

102. 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.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

103. 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.

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

*AACSB: Analytic*  
*Blooms: Analyze*  
*Difficulty: 1 Easy*  
*Learning Objective: 02-A*  
*Topic: Inverse Relationship*

104. 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.

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

*AACSB: Analytic*  
*Blooms: Remember*  
*Difficulty: 1 Easy*

105. 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.

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.

106. 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.

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.

*AACSB: Analytic*  
*Blooms: Remember*  
*Difficulty: 1 Easy*  
*Learning Objective: 02-A*  
*Topic: Slope of a Line*

107. 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.

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

*AACSB: Analytic*  
*Blooms: Remember*  
*Difficulty: 1 Easy*  
*Learning Objective: 02-A*  
*Topic: Slope of a Line*

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

- A. zero.
- B. 1.
- C. infinite.
- D. dependent on where it intersects the horizontal axis.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-A*

*Topic: Slope of a Line*

109. 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.

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

*AACSB: Analytic*

*Blooms: Remember*

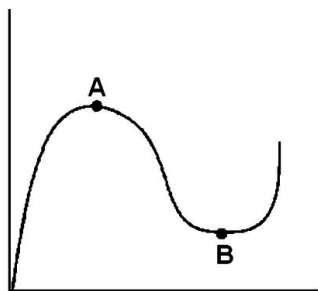
*Difficulty: 3 Hard*

*Learning Objective: 02-A*

*Topic: Slope of a Line*



110. 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.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-A*

*Topic: Slope of a Line*

111. 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.

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

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 3 Hard*

*Learning Objective: 02-A*

*Topic: Slope of a Line*

112. 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.

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.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 3 Hard*

*Learning Objective: 02-A*

*Topic: Vertical Intercept*

113. What is 25 percent of 200?

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

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

*AACSB: Analytic*

*Blooms: Analyze*

*Difficulty: 2 Medium*

*Learning Objective: 02-A*

*Topic: Percentage*

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

Percentage increase in GDP	
2009	-10.0
2010	-5.0
2011	-5.0
2012	4.0
2013	10.0

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

- A. GDP in 2010 is less than in 2009.
- B. GDP in 2010 is greater than in 2009.**
- C. GDP in 2013 is less than in 2012.
- D. GDP in 2012 is greater than in 2011.

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 2010, GDP in 2009 must be greater than in 2010.

*AACSB: Analytic*

*Blooms: Remember*

*Difficulty: 1 Easy*

*Learning Objective: 02-A*

*Topic: Percentage*