Chapter 01

Economics: The Core Issues

Multiple Choice Questions

1. Which of the following is not one of the three core economic issues that must be resolved?

    A. How to produce the goods and services we select.

    B. What to produce with unlimited resources.

    C. Who should get the goods and services we produce.

    D. What to produce with limited resources.

2. The fundamental problem of economics is

    A. The law of increasing opportunity costs.

    B. The scarcity of resources relative to human wants.

    C. How to get government to operate efficiently.

    D. How to create employment for everyone.

3. In economics, scarcity means that

    A. A shortage of a particular good will cause the price to fall.

    B. A production possibilities curve cannot accurately represent the trade-off between two goods.

    C. Society's desires exceed the want-satisfying capability of the resources available to satisfy those desires.

    D. The market mechanism has failed.

4. Given that resources are scarce,

    A. A "free lunch" is possible, but only for a limited number of people.

    B. Opportunity costs are experienced whenever choices are made.

    C. Poor countries must make choices, but rich countries with abundant resources do not have to make choices.

    D. Some choices involve opportunity costs while other choices do not.

5. A consequence of the economic problem of scarcity is that

    A. Choices have to be made about how resources are used.

    B. There is never too much of any good or service produced.

    C. The production of goods and services must be controlled by the government.

    D. The production possibilities curve is bowed outward.

6. The basic factors of production include

   A. Land, labor, money, and capital.

   B. Land, labor, money, and inputs.

   C. Labor and money.

   D. Land, labor, capital, and entrepreneurship.

7. Factors of production are

   A. Scarce in every society.

   B. Scarce only in advanced countries.

   C. Scarce only in the poorest countries of the world.

   D. Unlimited in quantity.

8. Which of the following is not a factor of production?

   A. A psychiatrist.

   B. The $100,000 used to start a new business.

   C. A bulldozer.

   D. Six thousand acres of farmland.

9. With respect to factors of production, which of the following statements is *not* true?

    A. Factors of production are also known as resources.

    B. In order to produce any good or service, it is necessary to have factors of production.

    C. Factors of production include land, labor, capital, and entrepreneurship.

    D. Only those resources that are privately owned are counted as factors of production.

10. Which of the following is the best example of land?

    A. The ethanol refined from corn.

    B. A factory that produces new goods and services.

    C. The water used to make a soft drink.

    D. A barber's chair.

11. *Capital,* as economists use the term, refers to

    A. The money needed to start a new business.

    B. The costs of operating a business.

    C. Shares of stock issued by businesses.

    D. Final goods that are used to produce other goods and services.

12. Which economist argued that free markets unleashed the "animal spirits" of entrepreneurs, propelling innovation, technology, and growth?

    A. Lord Kelvin.

    B. Kenneth Olsen.

    C. Irving Fisher.

    D. John Maynard Keynes.

13. The role of the entrepreneur in an economy is to

    A. Bring the factors of production together and assume the risk of production.

    B. Work with government planners to determine what goods are produced.

    C. Arrange bank financing for the owners of new businesses.

    D. Ensure full employment of labor.

14. Economics can be defined as the study of

    A. For whom resources are allocated to increase efficiency.

    B. How society spends the income of individuals.

    C. How scarce resources are allocated on a macro level to best meet society's goals or on a micro level to best meet an individual's or firm's goals.

    D. None of the choices are correct.

15. Opportunity cost is

   A. Measured only in dollars and cents.

   B. The total dollar cost to society of producing the goods.

   C. The difficulty associated with using one good in place of another.

   D. The best alternative that must be given up in order to get something else.

16. Opportunity cost may be defined as the

   A. Goods or services that are forgone in order to obtain something else.

   B. Dollar prices paid for final goods and services.

   C. Dollar cost of producing a particular product.

   D. Difference between wholesale and retail prices.

17. The opportunity cost of studying for an economics test is

   A. Negative because it may improve your grade.

   B. Zero because you knew when you registered for the class that studying would be required.

   C. The money you spent on tuition for the class.

   D. The best alternative use of your time.

18. The "guns versus butter" dilemma that all nations confront is that

    A. Guns and butter can be produced using the same resources at the same time.

    B. An increase in national defense implies more sacrifices of civilian goods and services.

    C. An increase in national defense is possible only if we produce more butter.

    D. All of the choices are correct.

19. A production possibilities curve indicates the

    A. Combinations of goods and services an economy is actually producing.

    B. Maximum combinations of goods and services an economy can produce given its available resources and technology.

    C. Maximum combinations of goods and services an economy can produce given unlimited resources.

    D. Average combinations of goods and services an economy can produce given its available resources and technology.

20. Which of the following is an assumption under which the production possibilities curve is drawn?

    A. Total unemployment is zero.

    B. The supply of resources is fixed.

    C. The price level is changing.

    D. Technology is changing.

21. A point on a nation's production possibilities curve represents

    A. An undesirable combination of goods and services.

    B. Combinations of production that are unattainable, given current technology and resources.

    C. Levels of production that will cause both unemployment and inflation.

    D. The full employment of resources to achieve a particular combination of goods and services.

22. The production possibilities curve illustrates which two of the following essential principles?

    A. Factors of production and price signals.

    B. Scarce resources and opportunity cost.

    C. Market mechanisms and laissez faire.

    D. Economic growth and market failure.

23. Which of the following correctly characterizes the shape of a constant opportunity cost production possibilities curve?

    A. A straight line indicating that the law of increasing opportunity costs applies.

    B. A straight line when there is constant opportunity costs.

    C. A line that curves outward when resources are perfectly adaptable in the production of different goods.

    D. A line that curves inward when resources are perfectly adaptable in the production of different goods.

24. The production possibilities curve illustrates

    A. The limitations that exist because of scarce resources.

    B. That there is no limit to what an economy can produce.

    C. That there is no limit to the level of output.

    D. The existence of unlimited wants and resources.

25. According to the law of increasing opportunity costs,

   A. The more one is willing to pay for resources, the smaller will be the possible level of production.

   B. Increasing the production of a particular good will cause the price of the good to remain constant.

   C. In order to produce additional units of a particular good, it is necessary for society to sacrifice increasingly larger amounts of alternative goods.

   D. None of the choices are correct.

26. According to the law of increasing opportunity costs,

   A. Greater production leads to greater inefficiency.

   B. Greater production means factor prices rise.

   C. Greater production of one good requires increasingly larger sacrifices of other goods.

   D. Higher opportunity costs induce higher output per unit of input.

27. If an economy experiences increasing opportunity costs with respect to two goods, then the production possibilities curve between the two goods will be

  A. Bowed outward or concave from below.

  B. A straight, downward-sloping line.

  C. Bowed inward or convex from below.

  D. Bowed outward until the two goods are equal, and then bowed inward.

28. If the United States decides to convert automobile factories to tank production, as it did during World War II, but finds that some auto manufacturing facilities are not well suited to tank production, then

  A. The production possibilities curve between tanks and automobiles will appear as a straight line.

  B. The production possibilities curve between tanks and automobiles will shift outward.

  C. Decreasing opportunity costs will occur with greater automobile production.

  D. Increasing opportunity costs will occur with greater tank production.

29. If North Korea is currently producing at efficiency, and it proceeds to increase the size of its military, then, as long as nothing else changes, its

   A. Production possibilities curve will shift outward.

   B. Production possibilities curve will shift inward.

   C. Production of nonmilitary goods will increase.

   D. Production of nonmilitary goods will decrease.

30. When an economy is producing efficiently, it is

   A. Producing a combination of goods and services beyond the production possibilities curve.

   B. Getting the most goods and services from the available resources.

   C. Experiencing decreasing opportunity costs.

   D. Producing equal amounts of all goods.

31. Which of the following is true when an economy is producing efficiently?

   A. The economy is producing on the production possibilities curve.

   B. The economy is producing outside the production possibilities curve.

   C. The economy is getting the fewest goods and services from the available resources.

   D. Everyone in the economy is happy.

32. The points on a production possibilities curve show

    A. Desired output.

    B. Actual output.

    C. Potential output.

    D. None of the choices are correct.

33. In terms of the production possibilities curve, inefficiency is represented by

    A. All points on the curve.

    B. All points outside the curve.

    C. All points inside the curve.

    D. A rightward shift of the curve.

34. If an economy is producing inside the production possibilities curve, then

    A. There is full employment of resources.

    B. It is operating efficiently.

    C. It can produce more of one good without giving up some of another good.

    D. There are not enough resources available to produce more output.

35. A technological advance would best be represented by

    A. A shift outward of the production possibilities curve.

    B. A shift inward of the production possibilities curve.

    C. A movement from inside the production possibilities curve to a point on the production possibilities curve.

    D. A movement from the production possibilities curve to a point inside the production possibilities curve.

36. Which of the following events would allow the production possibilities curve to shift outward?

    A. The economy's capital stock declines.

    B. More teenagers enter the labor force.

    C. Technology is lost.

    D. People begin to retire at earlier ages.

37. Economic growth would best be represented by a

    A. Shift outward of the production possibilities curve.

    B. Shift inward of the production possibilities curve.

    C. Movement from inside the production possibilities curve to a point on the
       production possibilities curve.

    D. Movement from the production possibilities curve to a point inside the
       production possibilities curve.

38. Which of the following will cause the production possibilities curve to shift
    inward?

    A. An increase in the working-age population.

    B. A decrease in the size of the labor force.

    C. A technological advance.

    D. An increase in knowledge.

39. Which of the following is not a basic decision that all nations must confront?

    A. Should we have economic growth?

    B. How should we produce goods and services?

    C. For whom should goods and services be produced?

    D. What goods and services should we produce?

40. In a market economy, the people who receive the goods and services that are produced are those who

    A. Need the goods and services the most.

    B. Have the most political power.

    C. Want the goods and services the most.

    D. Are willing to pay the highest price.

41. Adam Smith's invisible hand is now called

    A. Economic growth.

    B. The market mechanism.

    C. Opportunity cost.

    D. Laissez faire.

42. The market mechanism may best be defined as

    A. The use of market prices and sales to signal desired output.

    B. The use of market signals and government directives to select economic outcomes.

    C. The process by which the production possibilities curve shifts inward.

    D. Price regulation by government.

43. The market mechanism

    A. Is not a very efficient means of communicating consumer demand to the producers of goods and services.

    B. Works through central planning by government.

    C. Eliminates market failures created by government.

    D. Works because prices serve as a means of communication between consumers and producers.

44. *The invisible hand* refers to

    A. Intervention in the economy by the government bureaucrats we do not see and over whom we have no control.

    B. Undiscovered natural resources.

    C. The allocation of resources by market forces.

    D. The person who has the responsibility to coordinate all the markets in a market economy.

45. The doctrine of laissez faire is based on the belief that

   A. Markets are likely to do a better job of allocating resources than government directives.
   B. Government directives are likely to do a better job of allocating resources than markets.
   C. Government failure does not exist.
   D. Markets result in an unfair distribution of income.

46. A city's decision to limit smoking in public areas is an example of

   A. The invisible hand at work.
   B. The market mechanism at work.
   C. Market success.
   D. Government intervention.

47. A mixed economy

   A. Is justified by the superiority of laissez faire over government intervention.
   B. Utilizes both market and nonmarket signals to allocate goods and services.
   C. Relies on the use of central planning by private firms rather than the government.
   D. Is one that allows trade with other countries.

48. Which of the following can be used to correct market failure?

    A. The market mechanism.

    B. Laws and regulations.

    C. Laissez faire price policies.

    D. Government failure.

49. When the invisible hand does not produce optimal outcomes for the economy, there is evidence of

    A. Market failure.

    B. Government failure.

    C. Macroeconomic failure.

    D. Scarcity.

50. Government intervention may achieve a more optimal outcome than the market mechanism when addressing

    A. Inefficient bureaucracy.

    B. Consumption of cigarettes.

    C. Theme park construction.

    D. None of the choices are correct.

51. If market signals result in pollution beyond the optimal level, then

    A. The economy experiences government failure.

    B. A laissez faire approach will reduce the level of pollution.

    C. The market mechanism has failed to achieve social efficiency.

    D. The government is allocating resources inefficiently.

52. Which of the following has occurred when government directives do not produce better economic outcomes?

    A. Government failure.

    B. Market failure.

    C. Macroeconomic failure.

    D. Scarcity.

53. Which of the following is an example of government failure?

    A. Bureaucratic delays.

    B. Required use of pollution control technology that is obsolete.

    C. Inefficient incentives.

    D. All of the choices are correct.

54. Macroeconomics focuses on the performance of

   A. Individual consumers.

   B. Government agencies.

   C. The overall economy.

   D. All of the choices are correct.

55. Which of the following is *not* a macroeconomic statement?

   A. The unemployment rate for the United States rose to 5 percent in the last quarter.

   B. The Federal Reserve lowered interest rates at its last meeting.

   C. Congress increased the minimum wage rate in January.

   D. Jenny's wage rate rose, and in response, she decided to work more hours.

56. The study of microeconomic theory focuses on the

   A. Structure and performance of individual markets and the operation of the price system.

   B. Operation of the entire economy.

   C. Role of the banking system in the economy.

   D. Interaction of international trade and domestic production of goods and services.

57. Microeconomics is concerned with issues such as

    A. The demand for bottled water by individuals.

    B. The level of inflation in the economy.

    C. Maintaining a strong level of economic growth.

    D. All of the choices are correct.

58. Economic models are used by economists to

    A. Predict economic behavior.

    B. Develop economic policies.

    C. Explain economic behavior.

    D. All of the choices are correct.

59. The Latin phrase *ceteris paribus* means

    A. The production possibilities curve never shifts.

    B. Laissez faire.

    C. Other things remain equal.

    D. The invisible hand.

60.
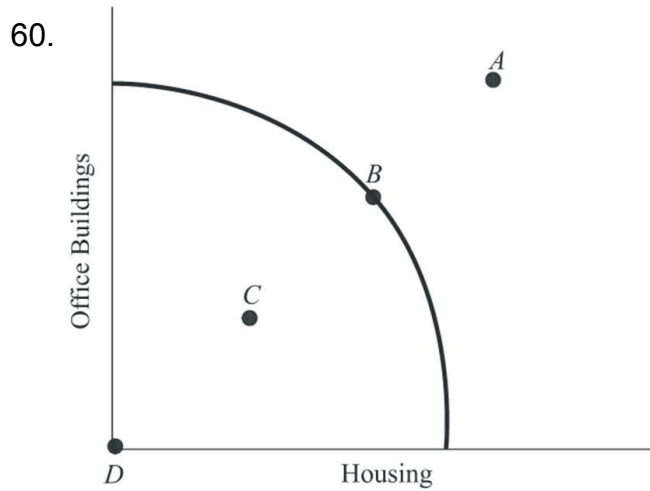
Figure 1.1
Production Possibilities Curve

At which point is society employing some of its available technology but not all of it? (See Figure 1.1.)

A. A.

B. B.

C. C.

D. D.

61.
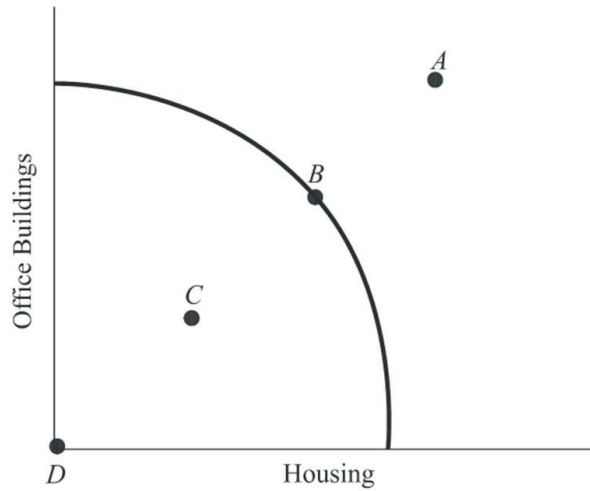
Figure 1.1
Production Possibilities Curve

At which point is society producing the most output possible with the available resources and technology? (See Figure 1.1.)

A. A.

B. B.

C. C.

D. D.

62.
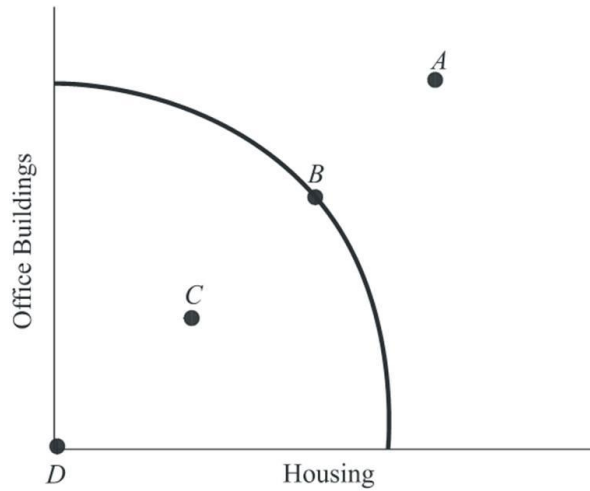
Figure 1.1
Production Possibilities Curve

At which point is society producing some of each type of structure but still producing inefficiently? (See Figure 1.1.)

A. A.

B. B.

C. C.

D. D.

63.
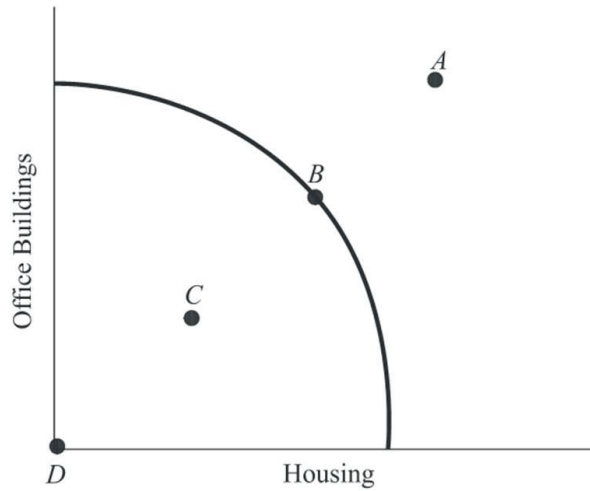
Figure 1.1
Production Possibilities Curve

At which point might society be able to produce if new resources were discovered but cannot produce with current resources? (See Figure 1.1.)

A. A.

B. B.

C. C.

D. D.

64.
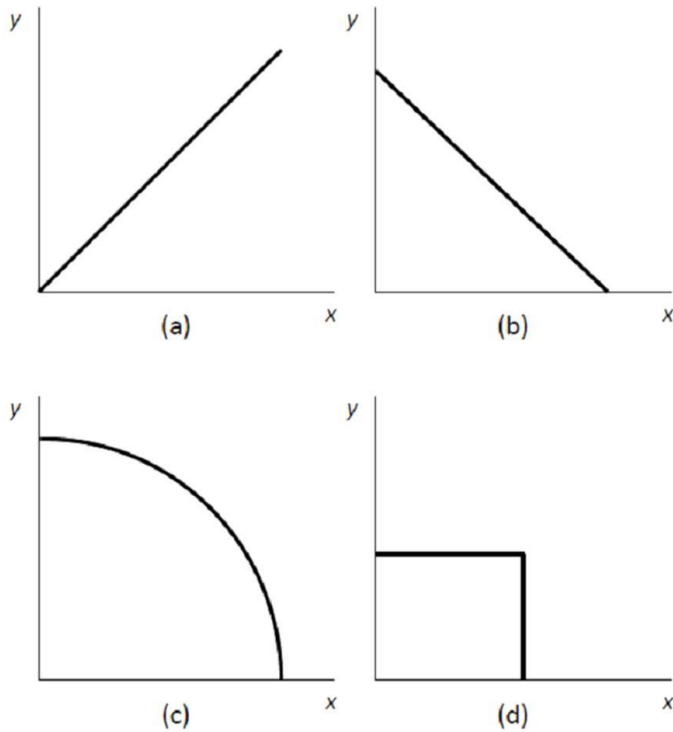
Figure 1.2
Production Possibilities Curves

Choose the letter of the curve in Figure 1.2 that best represents a production possibilities curve for two goods that obey the law of increasing opportunity costs:

A. A.

B. B.

C. C.

D. D.

65.
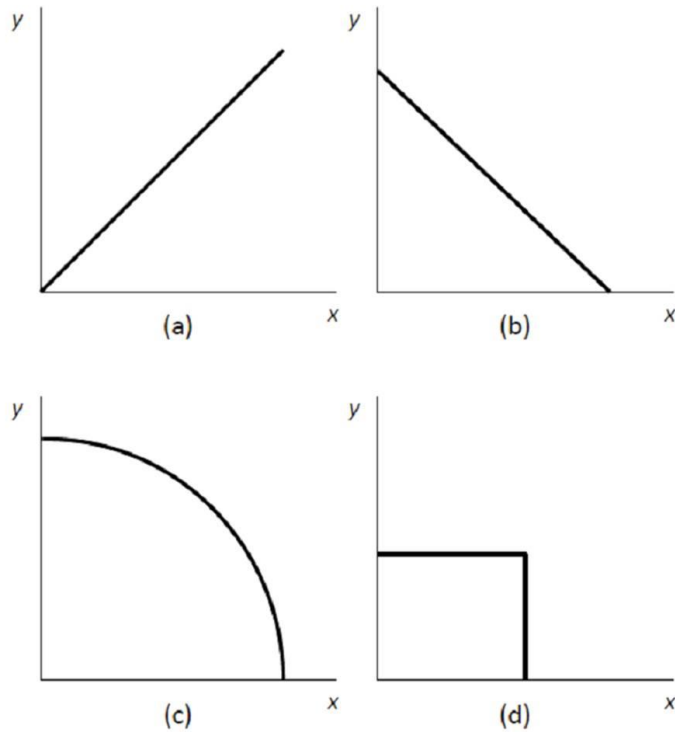
Figure 1.2
Production Possibilities Curves

Choose the letter of the curve in Figure 1.2 that best represents a production possibilities curve for two goods for which there are constant opportunity costs:

A. A.

B. B.

C. C.

D. D.

66.
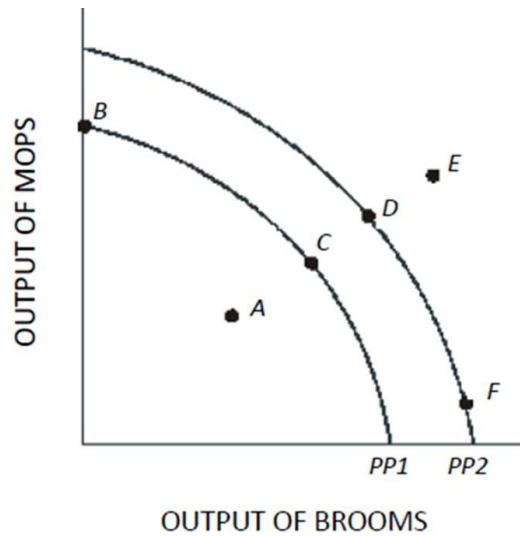

OUTPUT OF MOPS

B

E

D

C

A

F

PP1   PP2

OUTPUT OF BROOMS

Figure 1.3

Using Figure 1.3 and PP1, an increase in the capacity to produce can be represented by a movement from

A. Point A to point B.
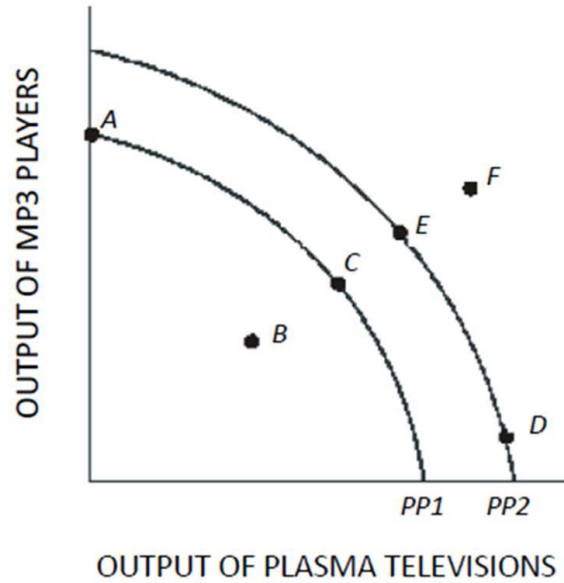
B. Point A to point C.

C. Point B to point C.

D. Point C to point F.

67.
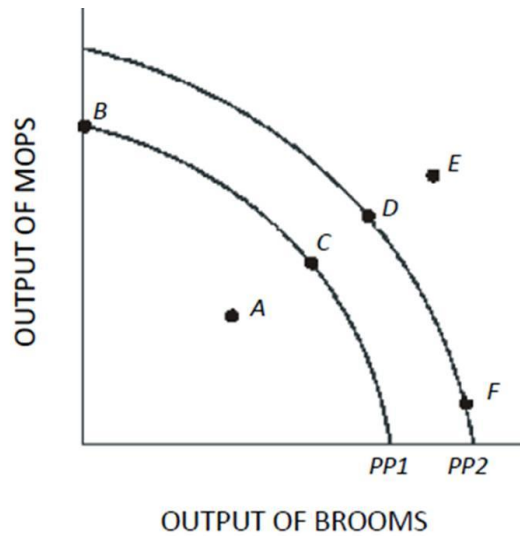
Figure 1.3

Using Figure 1.3 and PP1, at point A,

A. There is inefficient use of available resources.

B. The available technology keeps production inside PP1.

C. All available resources are being used efficiently.

D. An increase in the production of mops would definitely require a decrease in the production of brooms.

68.
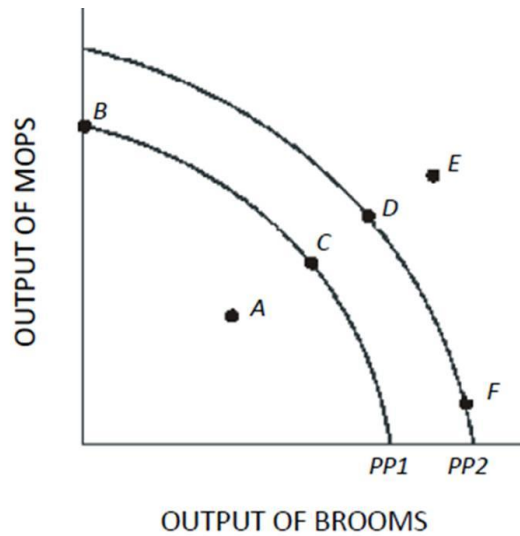
Figure 1.3

Which of the following is true about the combination of mops and brooms represented by point E in Figure 1.3 and using PP1?

A. Point E is efficient now.

B. Point E is attainable if this economy uses more of its available resources.

C. Point E is unattainable if this economy becomes more efficient.

D. Point E is attainable only if more resources become available or technological advances are made.

69.
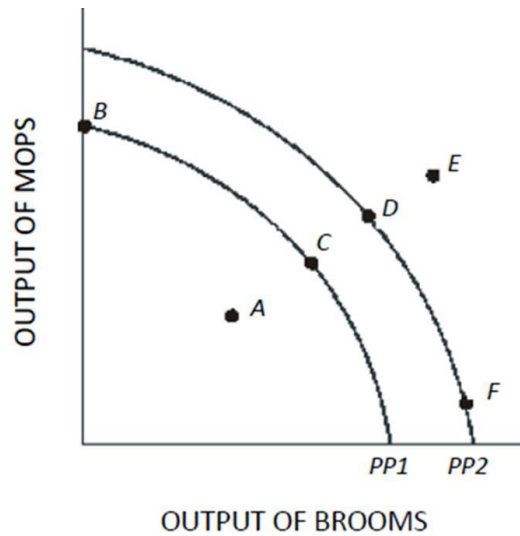
Figure 1.3

An increase in the proportion of the population that is unemployed above the normal rate is best represented in Figure 1.3 and using PP1 by a movement from point

A. C to point D.

B. D to point C.

C. C to point A.

D. E to point D.

70.
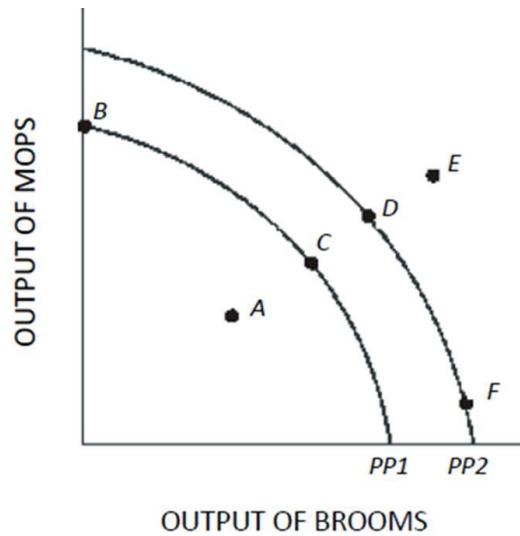
OUTPUT OF MOPS

B
E
D
C
A
F
PP1   PP2

OUTPUT OF BROOMS

Figure 1.3

A movement from point F to point D in Figure 1.3 results in

A. A reallocation of resources from mop production to broom production.

B. Permanent unemployment of workers producing brooms.

C. A reallocation of resources from broom production to mop production.

D. More efficient production.

71.
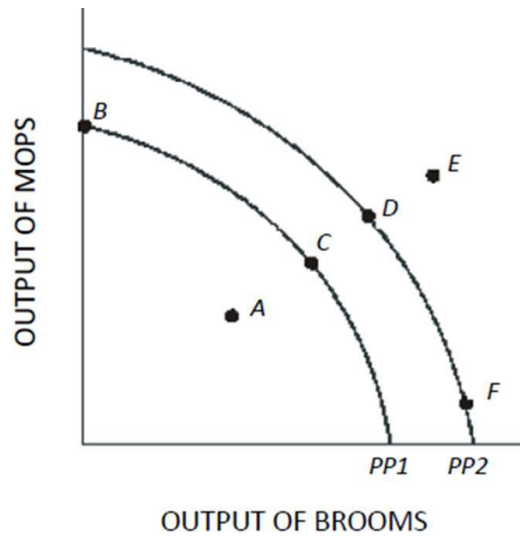
Figure 1.3

In Figure 1.3, a shift of the production possibilities curve from PP1 to PP2 could be caused by

A. A decrease in the quantity of raw materials available.

B. A decline in the production skills of workers.

C. The use of improved production technology.

D. All of the choices are correct.

72.
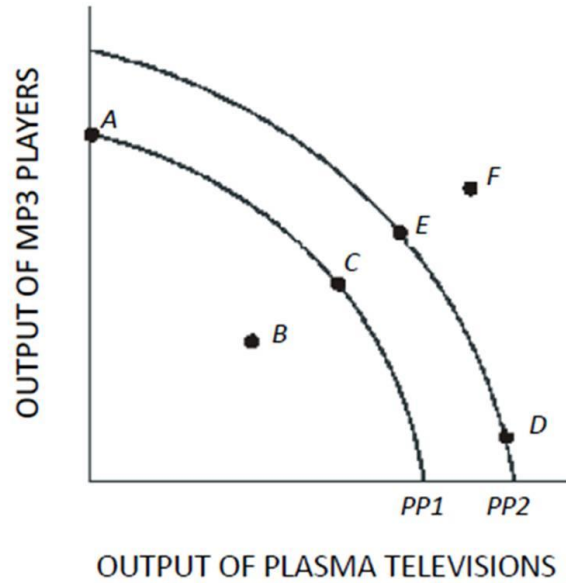
Figure 1.4

Using Figure 1.4 and starting at PP1, an increase in the capacity to produce can be represented by a movement from point

A. A to point B.

B. C to point E.

C. A to point C.

D. D to point E.

73.

Figure 1.4

Which of the following is true about the combination of plasma televisions and MP3 players represented by point F in Figure 1.4?

A. Point F is inefficient now.

B. Point F is unattainable even with advances in technology.

C. Point F will be more easily attainable if the government takes control of all privately run factories.

D. Point F can possibly be reached if more economic resources become available or technology improves.

74.

OUTPUT OF MP3 PLAYERS

OUTPUT OF PLASMA TELEVISIONS

Figure 1.4

A movement from point C to point A in Figure 1.4 results in

A. More efficient production.

B. Permanent unemployment of workers producing plasma televisions.

C. A reallocation of resources from MP3 player production to plasma television production.

D. A reallocation of resources from plasma television production to MP3 player production.

75.

OUTPUT OF MP3 PLAYERS

A
F
E
C
B
D
PP1   PP2

OUTPUT OF PLASMA TELEVISIONS

Figure 1.4

In Figure 1.4, a shift of the production possibilities curve from PP1 to PP2 could be caused by

A. An increase in the unemployment rate.

B. Implementation of training programs that improve the skills of workers.

C. A flu epidemic that makes many workers sick.

D. Tougher pollution controls for the producers of plasma televisions and MP3 players.

76.

Figure 1.5

Using Figure 1.5, if an economy has the capacity to produce represented by PP2, then point E represents

A. A constant trade-off between potato chips and doughnuts.

B. A combination of potato chips and doughnuts that is not attainable.

C. An efficient use of resources.

D. None of the choices are correct.

77.
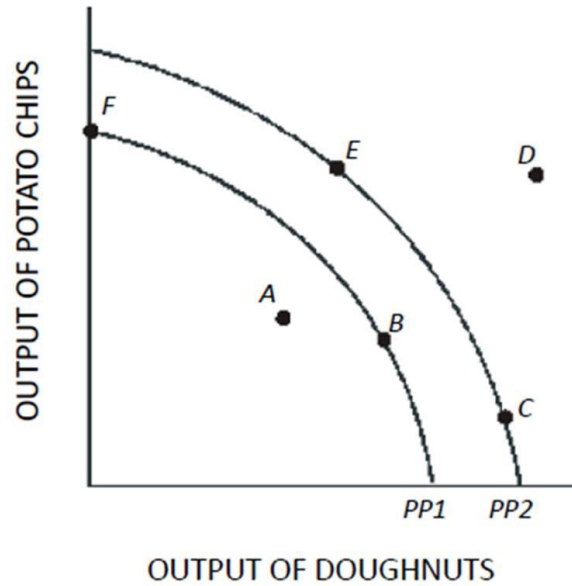
Figure 1.5

Using Figure 1.5, if an economy is currently producing on PP2, which of the following would shift the production possibilities curve toward PP1?

A. An increase in the quantity of labor available.

B. A decrease in the amount of capital available.

C. An increase in the level of unemployment above the normal level.

D. An advancement in technology.

78.
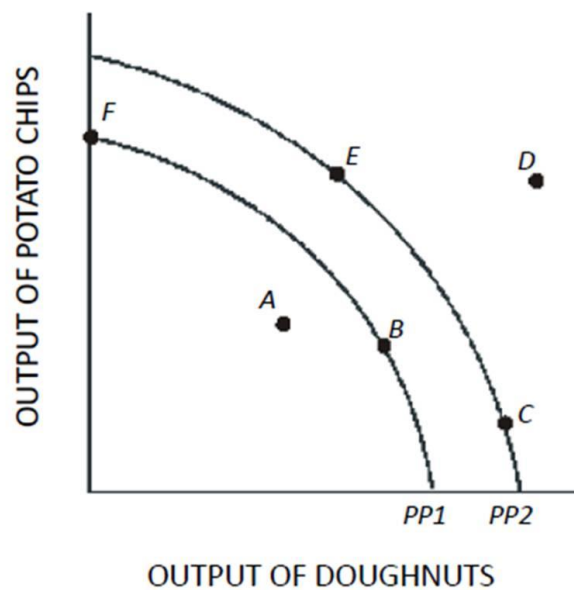
Figure 1.5

In Figure 1.5, at which of the following points would the opportunity cost of producing another doughnut be greatest?

A. A.

B. F.

C. C.

D. E.

79.
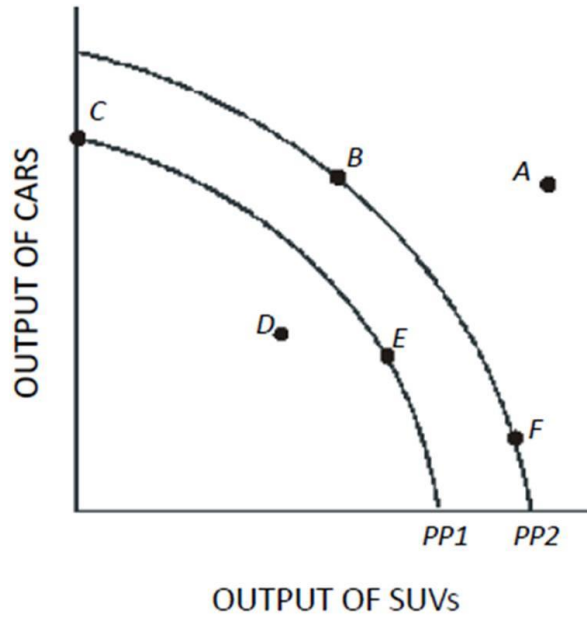
Figure 1.6

Using Figure 1.6, if an economy has the capacity to produce represented by PP1, then point E represents

A. A combination of cars and SUVs that is not attainable.

B. A constant trade-off between cars and SUVs.

C. A change in technology.

D. An efficient use of resources.

80.
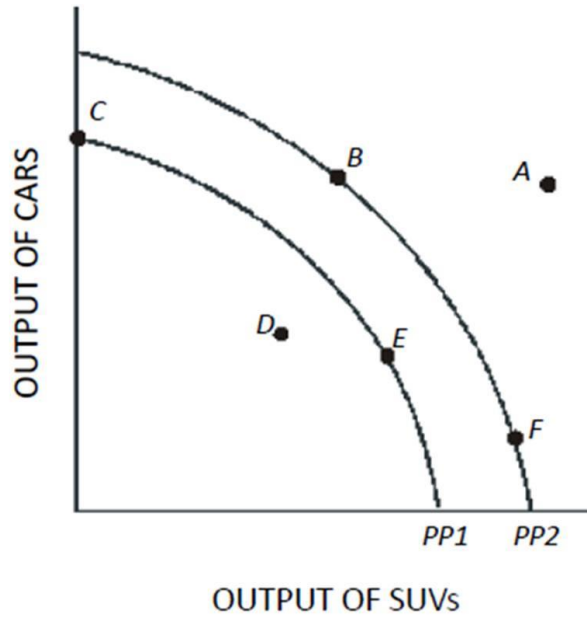
Figure 1.6

In Figure 1.6, if the opportunity cost of producing cars was zero at all levels of production, the production possibilities curve would be best be represented by a

A. Vertical line.

B. 45-degree line starting at the origin.

C. Horizontal line.

D. Circle.

81.
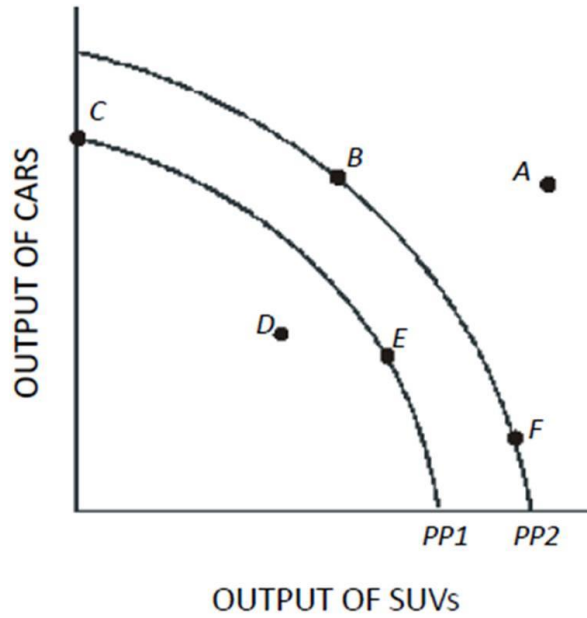
Figure 1.6

In Figure 1.6, at which of the following points would the opportunity cost of producing one more car be the lowest?

A. F.

B. B.

C. C.

D. D.

82.
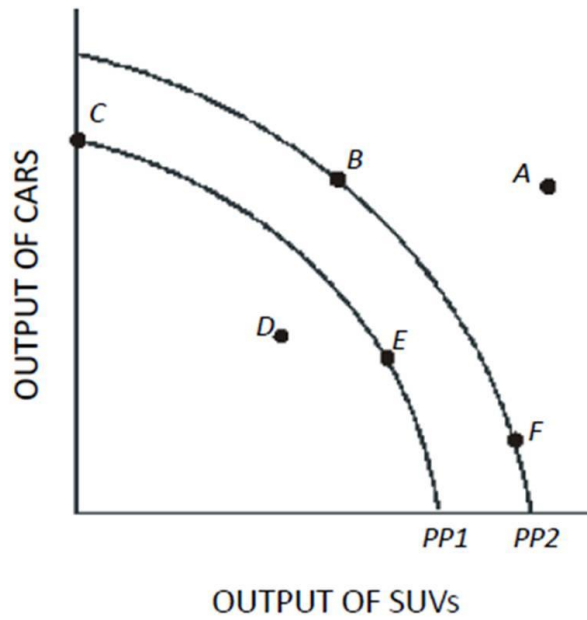
Figure 1.6

In Figure 1.6, at which of the following points would the opportunity cost of producing one more SUV be highest?

A. A.

B. B.

C. C.

D. F.

83.
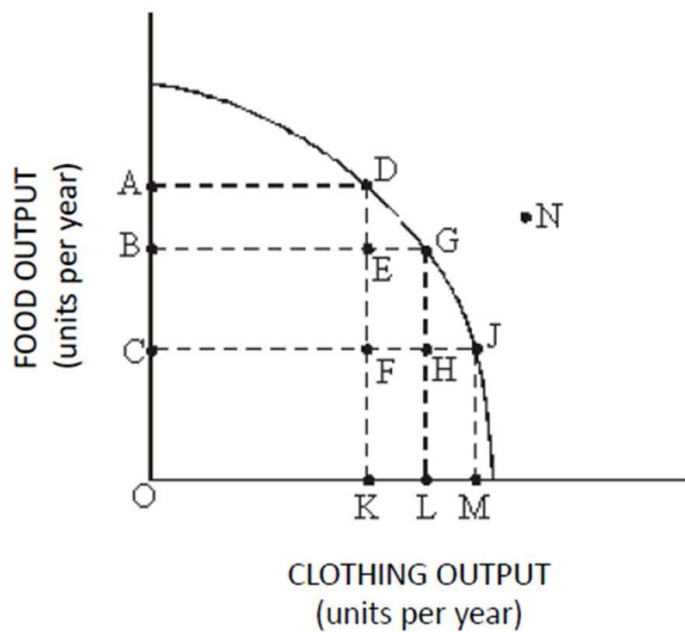
Figure 1.7

Refer to Figure 1.7. This economy will achieve efficiency in production at

A. Point D only.

B. Point G only.

C. Point J only.

D. Points D, G, and J.

84.
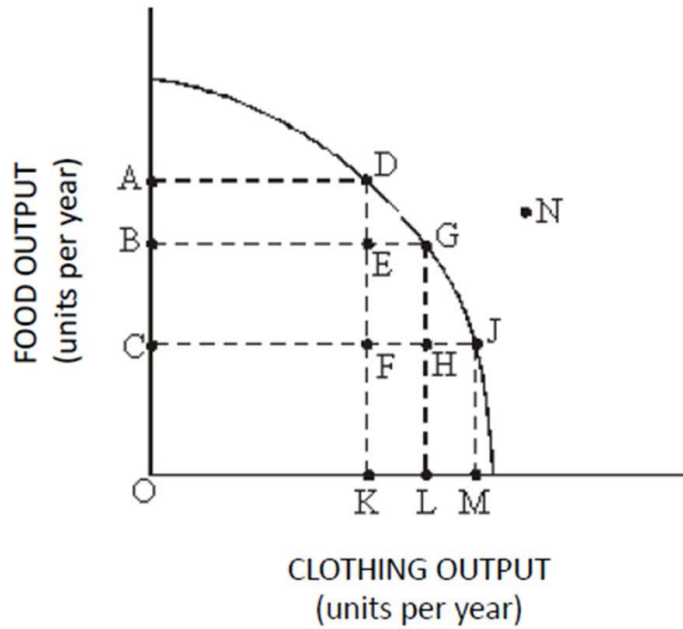
Figure 1.7

Refer to Figure 1.7. The cost of producing at point G rather than point D is

A. OA units of food.

B. KL units of clothing.

C. AB units of food.

D. OL units of clothing.

85.
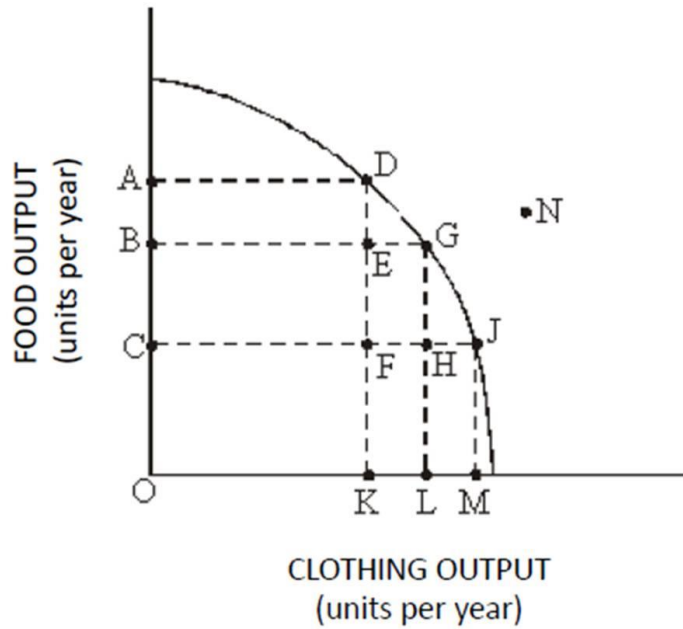
Figure 1.7

Refer to Figure 1.7. The benefit of producing at point G rather than point D is

A. OA units of food.

B. KL units of clothing.

C. AB units of food.

D. OL units of clothing.

86.
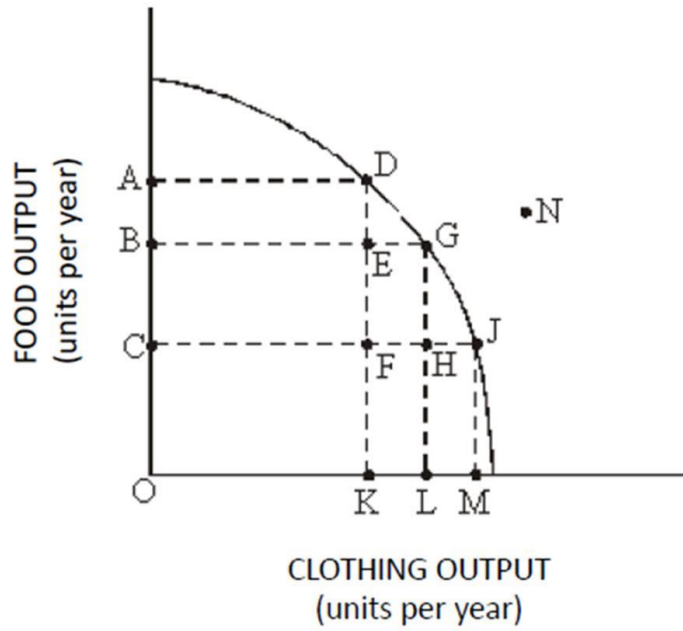
Figure 1.7

Refer to Figure 1.7. The cost of producing at point D rather than point J is

A. KM units of clothing.

B. AC units of food.

C. OM units of clothing.

D. OA units of food.

87.
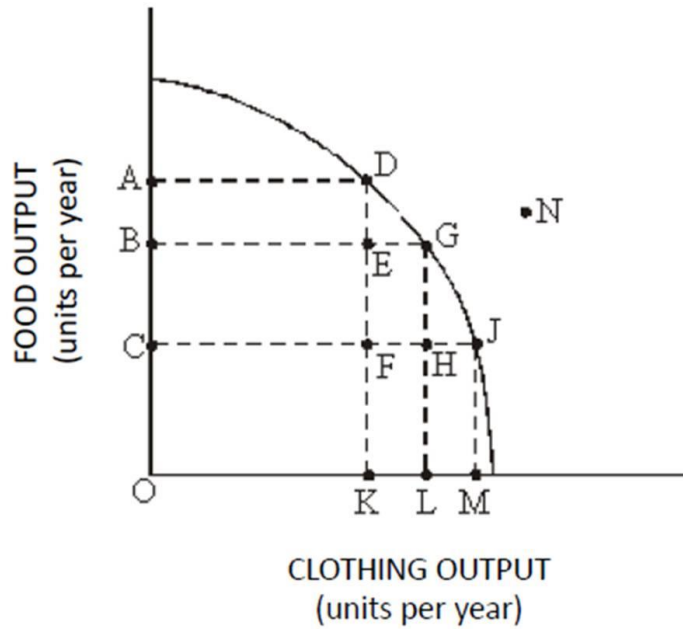
Figure 1.7

Refer to Figure 1.7. If this economy is currently producing at point F, then by employing more resources this economy

A. Can move to point D, but not points G or J.

B. Can move to points D, G, or J.

C. Can move to point G, but not points D or J.

D. Will remain at point F.

88.
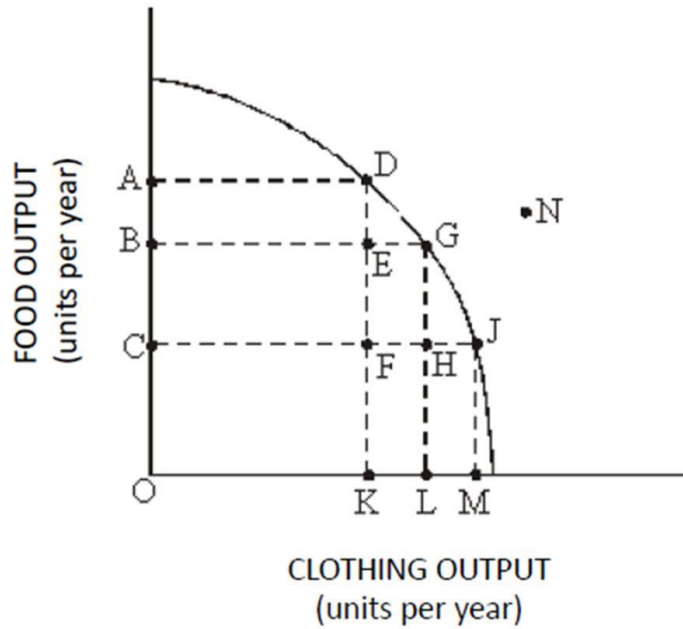
Figure 1.7

Refer to Figure 1.7. Which of the following points are considered to be inefficient?

A. D.

B. E.

C. G.

D. D, G, and J.

89.
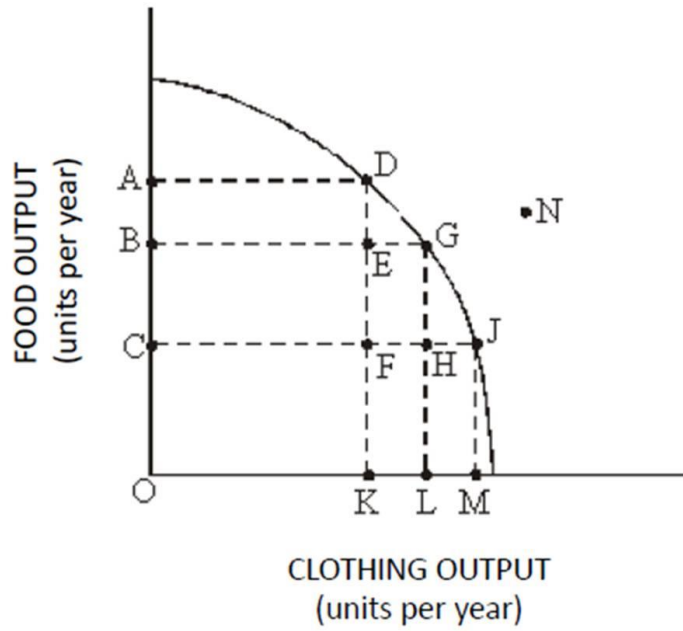
Figure 1.7

Refer to Figure 1.7. Which of the following points are unattainable, *ceteris paribus*?

A. G.

B. F.

C. N.

D. E.

90.
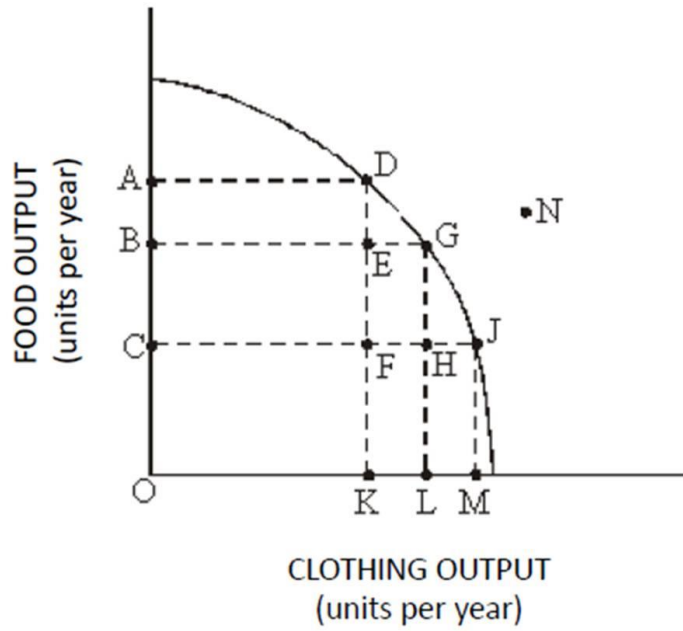
Figure 1.7

Refer to Figure 1.7. Which of the following points show unemployment of resources above the normal rate?

A. H.

B. J.

C. N.

D. D.

91. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

On the basis of your calculations in Table 1.1, you may infer that the law of increasing opportunity costs applies to

A. Stealth bombers but not to B-1 bombers.

B. B-1 bombers but not to Stealth bombers.

C. Both B-1 bombers and Stealth bombers.

D. Neither B-1 bombers nor Stealth bombers.

92. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

On the basis of your calculations in Table 1.1, what is the opportunity cost of producing at point S rather than point T?

A. 1 Stealth bomber.

B. 1 B-1 bomber.

C. 10 Stealth bombers.

D. 0.9 Stealth bombers.

93. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

On the basis of your calculations in Table 1.1, what is the opportunity cost of producing at point V rather than point U?

A. 3 B-1 bombers.

B. 1 B-1 bomber.

C. 4 Stealth bombers.

D. 3 Stealth bombers.

94. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

In the production range of 7 to 9 Stealth bombers, the opportunity cost of producing 1 more Stealth bomber in terms of B-1s is

A. 0.

B. 3.

C. 0.5.

D. 2.

95. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

The highest opportunity cost anywhere in Table 1.1 for Stealth bombers in terms of B-1 bombers is

A. 1 B-1 bomber per Stealth bomber.

B. 3 B-1 bombers per Stealth bomber.

C. 2 B-1 bombers per Stealth bomber.

D. 0.5 B-1 bomber per Stealth bomber.

96. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

The highest opportunity cost anywhere in Table 1.1 for B-1 bombers in terms of Stealth bombers is

A. 1 Stealth bomber per B-1 bomber.

B. 3 Stealth bombers per B-1 bomber.

C. 2 Stealth bombers per B-1 bomber.

D. 0.5 Stealth bomber per B-1 bomber.

97. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

The lowest opportunity cost anywhere in Table 1.1 for B-1 bombers in terms of Stealth bombers is

A. 0 Stealth bombers per B-1 bomber.

B. 2 Stealth bombers per B-1 bomber.

C. 1 Stealth bomber per B-1 bomber.

D. 0.5 Stealth bomber per B-1 bomber.

98. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

On the basis of your calculations in Table 1.2, the law of increasing opportunity costs applies to

A. Both B-1 and Stealth bombers.

B. B-1 bombers but not to Stealth bombers.

C. Stealth bombers but not to B-1 bombers.

D. Neither bomber.

99. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

On the basis of your calculations in Table 1.2, what is the opportunity cost of producing at point B rather than point C?

A. 45 B-1 bombers.

B. 35 Stealth bombers.

C. 180 Stealth bombers.

D. 10 B-1 bombers.

100. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

On the basis of your calculations in Table 1.2, what is gained by producing at point B rather than point C?

A. 45 B-1 bombers.

B. 30 Stealth bombers.

C. 180 Stealth bombers.

D. 10 B-1 bombers.

101. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

On the basis of your calculations in Table 1.2, what is gained by producing at point B rather than point A?

A. 35 B-1 bombers.

B. 195 Stealth bombers.

C. 15 B-1 bombers.

D. 15 Stealth bombers.

102. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

Refer to Table 1.2. In the production range of 20 to 35 B-1 bombers, the opportunity cost of producing 1 more B-1 bomber is

A. 195/20 of Stealth bombers.

B. 35/20 of Stealth bombers.

C. 15 Stealth bombers.

D. 1 Stealth bomber.

103.Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

The highest opportunity cost anywhere in Table 1.2 for B-1 bombers in terms of Stealth bombers is

A. 10 Stealth bombers per B-1 bomber.

B. .33 B-1 bomber per Stealth bomber.

C. .10 B-1 bomber per Stealth bomber.

D. .10 Stealth bomber per B-1 bomber.

104. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

The lowest opportunity cost anywhere in Table 1.2 for Stealth bombers in terms of B-1 bombers is

A. .4 B-1 bomber per Stealth bomber.

B. .3 B-1 bomber per Stealth bomber.

C. .2 B-1 bomber per Stealth bomber.

D. .10 B-1 bomber per Stealth bomber.

105. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs	Opportunity Cost of Combs in Terms of Brushes
J	0				4	
K	10				3	
L	17				2	
M	21				1	
N	23				0	

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, what is the opportunity cost of producing at point M rather than point N?

A. 23 combs.

B. 21 combs.

C. 1 brush.

D. 2 brushes.

106.Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, what is gained by producing at point M rather than point N?

A. 23 combs.

B. 21 combs.

C. 1 comb.

D. 2 combs.

107. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs	Opportunity Cost of Combs in Terms of Brushes
J	0				4	
K	10				3	
L	17				2	
M	21				1	
N	23				0	

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, what is gained from producing at point L rather than point K?

A. 17 combs.

B. 10 combs.

C. 1 brush.

D. 7 brushes.

108. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, the law of increasing opportunity costs applies to

A. Both brushes and combs.

B. Combs but not brushes.

C. Brushes but not combs.

D. Neither brushes nor combs.

109. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, in the production range of 2 to 3 combs the opportunity cost of producing 1 more comb in terms of brushes is

A. 3.33.

B. 7.0.

C. 0.67.

D. 0.14.

110. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs	Opportunity Cost of Combs in Terms of Brushes
J	0			4	
K	10			3	
L	17			2	
M	21			1	
N	23			0	

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, in the production range of 21 to 23 brushes the opportunity cost of producing more comb in terms of brushes is

A. 1/21.

B. 21/23.

C. 1/2.

D. 4.

111. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, in the production range of 1 to 2 combs the opportunity cost of producing 1 more comb in terms of brushes is

A. 4.

B. 1/2.

C. 2/17.

D. 1/7.

112. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, the highest opportunity cost for brushes in terms of combs is

A. 0.10 comb per brush.

B. 23 combs per brush.

C. 0.50 comb per brush.

D. 0.29 comb per brush.

113. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, the lowest opportunity cost for combs in terms of brushes is

A. 10 brushes per comb.

B. 2 brushes per comb.

C. 0.33 brush per comb.

D. 8.5 brushes per comb.

114. One World View article is titled "Chronic Food Shortage Shows Despite Efforts by North Korea to Hide It." On a production possibilities curve between private and public goods, a decrease in military spending in an effort to increase food production could be represented as

    A. A movement along the production possibilities curve toward more public goods.

    B. A movement along the production possibilities curve toward more private goods.

    C. A shift outward of the production possibilities curve.

    D. A shift inward of the production possibilities curve.

115. One World View article is titled "Chronic Food Shortage Shows Despite Efforts by North Korea to Hide It." If North Korea reduces the size of its military and produces more food, this is most consistent with

    A. A movement along the economy's production possibilities curve.

    B. Privatization.

    C. A laissez faire policy.

    D. The law of increasing opportunity costs.

116.The Economy Tomorrow on "Harnessing the Sun" states that the percentage of electricity that is generated from burning oil and coal is:

A. Less than 10%.

B. Between 10% and 30%.

C. Between 30% and 50%.

D. Greater than 50%.

117.
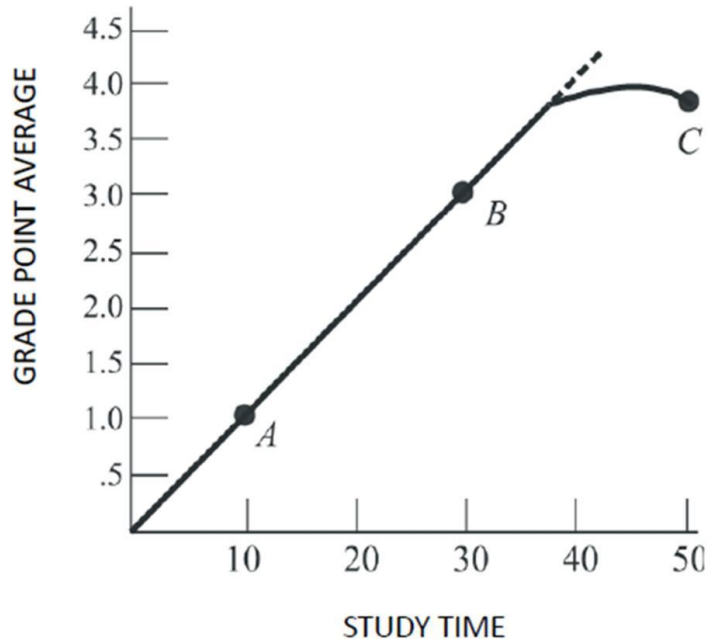
Figure 1.8
Relating Grades and Hours Studied

Figure 1.8 suggests that

A. The law of increasing opportunity cost does not apply.

B. Resources can be perfectly adapted between study time and grade point average.

C. The relationship between study time and grade point average is first linear, then nonlinear.

D. The relationship between study time and grade point average is constant.

118.

Figure 1.8
Relating Grades and Hours Studied

Refer to Figure 1.8. If the university decides to lower grading standards, then

A. This curve will shift rightward.

B. This curve will pivot up and to the left.

C. The curve will begin to bend downward at an earlier point.

D. We will slide up the curve from point B to point C.

119.

Figure 1.9

In Figure 1.9, as you move up the curve from point J toward point M, the slope

A. Increases.

B. Remains constant.

C. Decreases.

D. Becomes negative.

120.

Figure 1.9

In Figure 1.9, the slope of the line between points L and M is

A. 1.20.

B. 0.80.

C. 0.75.

D. 0.67.

121.

Figure 1.9

In Figure 1.9, the slope of the line between points K and L is

A. 1.25.

B. 0.80.

C. 0.75.

D. 0.60.

122.

Figure 1.9

In Figure 1.9 the slope of the line is

A. Greater at point K than point L.

B. Equal to zero at all points.

C. The same at points J and K.

D. Greater at point M than point L.

123.The slope of a curve at any point is given by this formula:

    A. The change in *y* coordinates between two points divided by the change in their *x* coordinates.

    B. The change in *x* coordinates between two points divided by the change in their *y* coordinates.

    C. The percentage change in *y* coordinates between two points divided by the percentage change in their *x* coordinates.

    D. The percentage change in *x* coordinates between two points divided by the percentage change in their *y* coordinates.

124.A line that slopes downward from left to right has a

    A. Negative slope.

    B. Positive slope.

    C. Slope that changes as you move along the curve.

    D. Slope of zero.

125.A linear function can be distinguished by

    A. The continuous change in its slope.

    B. The same slope throughout the line.

    C. The changing relationship between the two variables.

    D. A shift in the function.

126. When the relationship between two variables changes,

    A. There is movement from one point on the curve to another point on the curve.

    B. The curve becomes linear.

    C. The entire curve shifts.

    D. All of the choices are correct.

127. The fact that there are too few resources to satisfy all our wants is attributed to

    A. Scarcity.

    B. Greed.

    C. Shortages.

    D. Lack of money.

128. According to the text, there is no such thing as a free lunch because

    A. The producer must charge something to cover the cost of production.

    B. Resources used to produce the lunch could be used to produce other goods and services.

    C. The government must raise taxes to pay for the lunches.

    D. No one would pay for lunch anymore if they could get it for free.

129. In using a guns and butter production possibilities curve with increasing opportunity cost, producing more and more tanks

A. Lowers the cost of each individual tank.

B. Can be done at a constant opportunity cost.

C. Requires us to give up larger and larger amounts of butter per tank produced.

D. Is not possible due to scarcity.

130. Producing at a point inside the production possibilities curve

A. Means society must be using its resources efficiently.

B. Is unattainable given the present level of technology.

C. Is feasible when the nation is at war but not feasible when the nation is at peace.

D. Suggests we are forgoing the ability to produce more of both goods.

131. Greater regulation to correct the imbalances in the economy, as well government intervention to maintain full employment, was associated primarily with the work of

A. John Maynard Keynes.

B. Adam Smith.

C. Karl Marx.

D. Ronald Reagan.

132. The book *Wealth of Nations* was written by

   A. Adam Smith in 1776.

   B. John Maynard Keynes in 1776.

   C. Adam Smith in 1936.

   D. John Maynard Keynes in 1936.

True / False Questions

133. Scarcity results when available resources cannot satisfy all desired uses of those resources.

   True   False

134. Critics of government regulation argue that government interference in the marketplace stifles the animal spirits of entrepreneurship.

   True   False

135. Opportunity cost is a theoretical concept with no practical application.

   True   False

136. Every time we use scarce resources in one way, we give up the opportunity to use them in other ways.

True   False

137. The production possibilities decrease as more resources and better technology are utilized.

True   False

138. All output combinations that lie outside a production possibilities curve are attainable with available resources and technology.

True   False

139. Output combinations that lie inside the production possibilities curve are characterized by efficient use of resources.

True   False

140. If the economy is inside the production possibilities curve, then more output can be produced using existing resources.

True   False

141.All economies must make decisions concerning what to produce, how to produce it, and for whom to produce.

True   False

142.The essential feature of the market mechanism is the price signal.

True   False

143.Government failure occurs when government intervention fails to improve economic outcomes or makes them worse.

True   False

144.Microeconomics is concerned with individual performance as well as the economy as a whole.

True   False

145.The Latin phrase *ceteris paribus* refers to holding other variables constant.

True   False

146.To calculate the slope of a line, find the vertical distance between two points and divide it by the horizontal distance between the same two points.

True   False

147. The slope of a production possibilities curve is positive.

    True   False

148. When a curve shifts, the underlying relationship between the two variables has changed.

    True   False

Essay Questions

149. Explain why an economist would say, "There is no such thing as a free lunch."

150.Describe the shape of the typical production possibilities curve and explain why it

   has this shape.

151.Why do opportunity costs increase as society produces more of a good?

152.Explain the concept of inefficiency in terms of a production possibilities curve.

153.Explain the difference between macroeconomics and microeconomics. Give examples of each.

154.How does the market mechanism answer the WHAT, HOW, and FOR WHOM questions?

Chapter 01 Economics: The Core Issues Answer Key

Multiple Choice Questions

1. Which of the following is not one of the three core economic issues that must be resolved?

    A. How to produce the goods and services we select.

    B. What to produce with unlimited resources.

    C. Who should get the goods and services we produce.

    D. What to produce with limited resources.

    Resources are not unlimited.

2.   The fundamental problem of economics is

      A. The law of increasing opportunity costs.

      B. The scarcity of resources relative to human wants.

      C. How to get government to operate efficiently.

      D. How to create employment for everyone.

Wants will always exceed resources.

3.   In economics, scarcity means that

      A. A shortage of a particular good will cause the price to fall.

      B. A production possibilities curve cannot accurately represent the trade-off between two goods.

      C. Society's desires exceed the want-satisfying capability of the resources available to satisfy those desires.

      D. The market mechanism has failed.

We cannot produce everything with fixed resources.

4.   Given that resources are scarce,

A. A "free lunch" is possible, but only for a limited number of people.

B. Opportunity costs are experienced whenever choices are made.

C. Poor countries must make choices, but rich countries with abundant resources do not have to make choices.

D. Some choices involve opportunity costs while other choices do not.

Any choice requires us to give something up.

5. A consequence of the economic problem of scarcity is that

    A. Choices have to be made about how resources are used.

    B. There is never too much of any good or service produced.

    C. The production of goods and services must be controlled by the government.

    D. The production possibilities curve is bowed outward.

Scarcity means choices must be made.

6.   The basic factors of production include

A. Land, labor, money, and capital.

B. Land, labor, money, and inputs.

C. Labor and money.

D. Land, labor, capital, and entrepreneurship.

The basic four factors are required for the production of goods and services.
Factors of production are what are needed on a camping trip. Money is not
needed on a camping trip.

7.   Factors of production are

A. Scarce in every society.

B. Scarce only in advanced countries.

C. Scarce only in the poorest countries of the world.

D. Unlimited in quantity.

Land, labor, capital, and entrepreneurship are scarce.

8.   Which of the following is not a factor of production?

A. A psychiatrist.

B. The $100,000 used to start a new business.

C. A bulldozer.

D. Six thousand acres of farmland.

Land, labor, capital, and entrepreneurship are the factors of production. Money does not fall under any category of the factors of production. Factors of production are what are needed on a camping trip. Money is not needed on a camping trip.

9. With respect to factors of production, which of the following statements is *not* true?

    A. Factors of production are also known as resources.

    B. In order to produce any good or service, it is necessary to have factors of production.

    C. Factors of production include land, labor, capital, and entrepreneurship.

    D. Only those resources that are privately owned are counted as factors of production.

Even resources owned by governments count as factors of production.

10. Which of the following is the best example of land?

    A. The ethanol refined from corn.

    B. A factory that produces new goods and services.

    <u>C.</u> The water used to make a soft drink.

    D. A barber's chair.

If it directly becomes a part of the final product, it is land or a raw material. Water used to float a boat is the same as a delivery van. In this case it would be capital.

AACSB: Reflective Thinking
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 01-01 How scarcity creates opportunity costs.
Topic: SCARCITY: THE CORE PROBLEM

11. *Capital,* as economists use the term, refers to

A. The money needed to start a new business.

B. The costs of operating a business.

C. Shares of stock issued by businesses.

D. Final goods that are used to produce other goods and services.

Physical capital is used to produce other goods and services, including other capital goods. Hammers produce houses. Forklifts move forklift parts around a forklift factory. Money is financial capital, which is a throughput. It is used to acquire a hammer or physical capital.

12. Which economist argued that free markets unleashed the "animal spirits" of entrepreneurs, propelling innovation, technology, and growth?

    A. Lord Kelvin.

    B. Kenneth Olsen.

    C. Irving Fisher.

    D. John Maynard Keynes.

Competition leads companies to always try to do something better and more efficiently in order to maximize profits.

AACSB: Reflective Thinking
Blooms: Understand
Difficulty: 1 Easy
Learning Objective: 01-01 How scarcity creates opportunity costs.
Topic: SCARCITY: THE CORE PROBLEM

13. The role of the entrepreneur in an economy is to

   <u>A.</u> Bring the factors of production together and assume the risk of production.

   B. Work with government planners to determine what goods are produced.

   C. Arrange bank financing for the owners of new businesses.

   D. Ensure full employment of labor.

   The entrepreneur is an important factor of production and acts to mobilize the use of other resources.

14. Economics can be defined as the study of

   A. For whom resources are allocated to increase efficiency.

   B. How society spends the income of individuals.

   <u>C.</u> How scarce resources are allocated on a macro level to best meet society's goals or on a micro level to best meet an individual's or firm's goals.

   D. None of the choices are correct.

   Economics studies how we get the most we can out of what we have.

15. Opportunity cost is

A. Measured only in dollars and cents.

B. The total dollar cost to society of producing the goods.

C. The difficulty associated with using one good in place of another.

D. The best alternative that must be given up in order to get something else.

Opportunity cost involves the sacrifice to get something else. Opportunity cost is measured in both relative resource dollar cost and relative time lost of producing alternative output.

16. Opportunity cost may be defined as the

    <u>A.</u> Goods or services that are forgone in order to obtain something else.

    B. Dollar prices paid for final goods and services.

    C. Dollar cost of producing a particular product.

    D. Difference between wholesale and retail prices.

The opportunity cost is your best alternative that is forgone.

17. The opportunity cost of studying for an economics test is

    A. Negative because it may improve your grade.

    B. Zero because you knew when you registered for the class that studying would be required.

    C. The money you spent on tuition for the class.

    <u>D.</u> The best alternative use of your time.

The opportunity cost is the activity you would do instead of studying.

18. The "guns versus butter" dilemma that all nations confront is that

    A. Guns and butter can be produced using the same resources at the same time.

    B. An increase in national defense implies more sacrifices of civilian goods and services.

    C. An increase in national defense is possible only if we produce more butter.

    D. All of the choices are correct.

    To get more of one good, we must sacrifice production of other goods. "Guns versus butter" is a figurative way of expressing the trade-off between defense and civilian goods and services.

19. A production possibilities curve indicates the

A. Combinations of goods and services an economy is actually producing.

<u>B.</u> Maximum combinations of goods and services an economy can produce given its available resources and technology.

C. Maximum combinations of goods and services an economy can produce given unlimited resources.

D. Average combinations of goods and services an economy can produce given its available resources and technology.

The production possibilities curve shows us the possible choices we can make in regards to what to produce.

20. Which of the following is an assumption under which the production possibilities curve is drawn?

A. Total unemployment is zero.

B. The supply of resources is fixed.

C. The price level is changing.

D. Technology is changing.

The production possibilities curve is a snapshot of a short time frame when resources are fixed.

21. A point on a nation's production possibilities curve represents

   A. An undesirable combination of goods and services.

   B. Combinations of production that are unattainable, given current technology and resources.

   C. Levels of production that will cause both unemployment and inflation.

   D. The full employment of resources to achieve a particular combination of goods and services.

   Being on the curve is efficient because we are getting the most we can out of our resources.

22. The production possibilities curve illustrates which two of the following essential principles?

    A. Factors of production and price signals.

    B. Scarce resources and opportunity cost.

    C. Market mechanisms and laissez faire.

    D. Economic growth and market failure.

The production possibilities curve illustrates scarce resources and opportunity cost as essential principles.

23. Which of the following correctly characterizes the shape of a constant opportunity cost production possibilities curve?

A. A straight line indicating that the law of increasing opportunity costs applies.

B. A straight line when there is constant opportunity costs.

C. A line that curves outward when resources are perfectly adaptable in the production of different goods.

D. A line that curves inward when resources are perfectly adaptable in the production of different goods.

A straight-line production possibilities curve means resources are equally adaptable to producing either good.

24. The production possibilities curve illustrates

    <u>A.</u> The limitations that exist because of scarce resources.

    B. That there is no limit to what an economy can produce.

    C. That there is no limit to the level of output.

    D. The existence of unlimited wants and resources.

We cannot get more of one good without giving up some other goods. Points outside the production possibilities curve are unattainable because of scarcity, even though they may be wanted.

25. According to the law of increasing opportunity costs,

    A. The more one is willing to pay for resources, the smaller will be the possible level of production.

    B. Increasing the production of a particular good will cause the price of the good to remain constant.

    C. In order to produce additional units of a particular good, it is necessary for society to sacrifice increasingly larger amounts of alternative goods.

    D. None of the choices are correct.

Opportunity costs rise as more and more of a good is produced.

26. According to the law of increasing opportunity costs,

A. Greater production leads to greater inefficiency.

B. Greater production means factor prices rise.

C. Greater production of one good requires increasingly larger sacrifices of other goods.

D. Higher opportunity costs induce higher output per unit of input.

The opportunity cost rises incrementally as more of one particular good is produced.

27. If an economy experiences increasing opportunity costs with respect to two goods, then the production possibilities curve between the two goods will be

A. Bowed outward or concave from below.

B. A straight, downward-sloping line.

C. Bowed inward or convex from below.

D. Bowed outward until the two goods are equal, and then bowed inward.

A bowed-out production possibilities curve means opportunity costs are increasing as we move from one point to another along the curve.

28. If the United States decides to convert automobile factories to tank production, as it did during World War II, but finds that some auto manufacturing facilities are not well suited to tank production, then

    A. The production possibilities curve between tanks and automobiles will appear as a straight line.

    B. The production possibilities curve between tanks and automobiles will shift outward.

    C. Decreasing opportunity costs will occur with greater automobile production.

    D. Increasing opportunity costs will occur with greater tank production.

Factors of production, including capital, are specialized, meaning they are generally better suited for one use.

29. If North Korea is currently producing at efficiency, and it proceeds to increase the size of its military, then, as long as nothing else changes, its

A. Production possibilities curve will shift outward.

B. Production possibilities curve will shift inward.

C. Production of nonmilitary goods will increase.

<u>D.</u> Production of nonmilitary goods will decrease.

There is a trade-off: to get more of one good, other goods must be given up.

30. When an economy is producing efficiently, it is

A. Producing a combination of goods and services beyond the production possibilities curve.

<u>B.</u> Getting the most goods and services from the available resources.

C. Experiencing decreasing opportunity costs.

D. Producing equal amounts of all goods.

This would be represented by being on the production possibilities curve.

31. Which of the following is true when an economy is producing efficiently?

A. The economy is producing on the production possibilities curve.

B. The economy is producing outside the production possibilities curve.

C. The economy is getting the fewest goods and services from the available resources.

D. Everyone in the economy is happy.

Being inside the production possibilities curve is inefficient, being on it is efficient, and being outside the curve is impossible, ceteris paribus.

32. The points on a production possibilities curve show

    A. Desired output.

    B. Actual output.

    C. Potential output.

    D. None of the choices are correct.

Potential output is the maximum attainable output with our limited resources, and the production possibilities curve shows the limits of our options.

33. In terms of the production possibilities curve, inefficiency is represented by

    A. All points on the curve.

    B. All points outside the curve.

    C. All points inside the curve.

    D. A rightward shift of the curve.

At points inside the production possibilities curve, we can get more of one good without sacrificing any other goods.

34.   If an economy is producing inside the production possibilities curve, then

A. There is full employment of resources.

B. It is operating efficiently.

<u>C.</u> It can produce more of one good without giving up some of another good.

D. There are not enough resources available to produce more output.

No goods must be given up to move from an inefficient to an efficient level of production. Hence, there is no sacrifice or opportunity cost.

35. A technological advance would best be represented by

A. A shift outward of the production possibilities curve.

B. A shift inward of the production possibilities curve.

C. A movement from inside the production possibilities curve to a point on the production possibilities curve.

D. A movement from the production possibilities curve to a point inside the production possibilities curve.

The shift would move the production possibilities curve away from the origin so that we can get more of both goods.

36. Which of the following events would allow the production possibilities curve to shift outward?

A. The economy's capital stock declines.

B. More teenagers enter the labor force.

C. Technology is lost.

D. People begin to retire at earlier ages.

Increases in factors of production will shift the production possibilities curve outward.

37. Economic growth would best be represented by a

A. Shift outward of the production possibilities curve.

B. Shift inward of the production possibilities curve.

C. Movement from inside the production possibilities curve to a point on the production possibilities curve.

D. Movement from the production possibilities curve to a point inside the production possibilities curve.

Economic growth allows more of both goods.

38. Which of the following will cause the production possibilities curve to shift inward?

   A. An increase in the working-age population.

   B. A decrease in the size of the labor force.

   C. A technological advance.

   D. An increase in knowledge.

   A decrease in any factor of production will reduce our production possibilities.

39. Which of the following is not a basic decision that all nations must confront?

   A. Should we have economic growth?

   B. How should we produce goods and services?

   C. For whom should goods and services be produced?

   D. What goods and services should we produce?

   Economic growth is necessary to maintain living standards with growing populations.

40.   In a market economy, the people who receive the goods and services that are produced are those who

A. Need the goods and services the most.

B. Have the most political power.

C. Want the goods and services the most.

D. Are willing to pay the highest price.

Those who place low value on the goods and services will not part with their money for them, and will likely be outbid by those who value them more.

41. Adam Smith's invisible hand is now called

   A. Economic growth.

   B. The market mechanism.

   C. Opportunity cost.

   D. Laissez faire.

   Adam Smith's invisible hand is now called the market mechanism.

42. The market mechanism may best be defined as

   A. The use of market prices and sales to signal desired output.

   B. The use of market signals and government directives to select economic outcomes.

   C. The process by which the production possibilities curve shifts inward.

   D. Price regulation by government.

   Markets allocate based on prices.

43. The market mechanism

   A. Is not a very efficient means of communicating consumer demand to the producers of goods and services.

   B. Works through central planning by government.

   C. Eliminates market failures created by government.

   D. Works because prices serve as a means of communication between consumers and producers.

   Buyers choose how much to buy based on price; profitability and therefore production are driven by prices.

44. *The invisible hand* refers to

    A. Intervention in the economy by the government bureaucrats we do not see and over whom we have no control.

    B. Undiscovered natural resources.

    <u>C.</u> The allocation of resources by market forces.

    D. The person who has the responsibility to coordinate all the markets in a market economy.

Resources are allocated efficiently as if directed by an unseen force.

45. The doctrine of laissez faire is based on the belief that

    <u>A.</u> Markets are likely to do a better job of allocating resources than government directives.

    B. Government directives are likely to do a better job of allocating resources than markets.

    C. Government failure does not exist.

    D. Markets result in an unfair distribution of income.

Millions of individuals making choices everyday tend to do a better job than a central authority.

46. A city's decision to limit smoking in public areas is an example of

    A. The invisible hand at work.

    B. The market mechanism at work.

    C. Market success.

    D. Government intervention.

Governments can sometimes improve market outcomes.

AACSB: Reflective Thinking

Blooms: Analyze

Difficulty: 2 Medium

Learning Objective: 01-04 How market and government approaches to economic problems differ.

Topic: THE MECHANISMS OF CHOICE

47. A mixed economy

    A. Is justified by the superiority of laissez faire over government intervention.

    B. Utilizes both market and nonmarket signals to allocate goods and services.

    C. Relies on the use of central planning by private firms rather than the government.

    D. Is one that allows trade with other countries.

Most industrialized economies are mixed economies: they are based on market principles but still have significant roles for government intervention in the allocation of goods and services.

48. Which of the following can be used to correct market failure?

   A. The market mechanism.

   B. Laws and regulations.

   C. Laissez faire price policies.

   D. Government failure.

   Laws and regulations can align the interests of individuals with society at large.

49. When the invisible hand does not produce optimal outcomes for the economy, there is evidence of

   A. Market failure.

   B. Government failure.

   C. Macroeconomic failure.

   D. Scarcity.

   Market failure situations call for possible government action to hopefully improve the outcome toward a socially optimal or socially efficient outcome.

50.   Government intervention may achieve a more optimal outcome than the market mechanism when addressing

   A. Inefficient bureaucracy.

   B. Consumption of cigarettes.

   C. Theme park construction.

   D. None of the choices are correct.

   Society is better off with less cigarette consumption than the market outcome dictates.

51. If market signals result in pollution beyond the optimal level, then

A. The economy experiences government failure.

B. A laissez faire approach will reduce the level of pollution.

<u>C.</u> The market mechanism has failed to achieve social efficiency.

D. The government is allocating resources inefficiently.

Government intervention could improve on the market outcome.

52. Which of the following has occurred when government directives do not produce better economic outcomes?

<u>A.</u> Government failure.

B. Market failure.

C. Macroeconomic failure.

D. Scarcity.

Government failure occurs when government action ends up making the market outcomes worse, not better.

53. Which of the following is an example of government failure?

   A. Bureaucratic delays.

   B. Required use of pollution control technology that is obsolete.

   C. Inefficient incentives.

   D. All of the choices are correct.

   There are costs to government action, which in this case prevent an improvement in the outcome.

54. Macroeconomics focuses on the performance of

    A. Individual consumers.

    B. Government agencies.

    <u>C.</u> The overall economy.

    D. All of the choices are correct.

Things like inflation, unemployment, and GDP are macroeconomic measures relating to the entire economy.

55. Which of the following is *not* a macroeconomic statement?

    A. The unemployment rate for the United States rose to 5 percent in the last quarter.

    B. The Federal Reserve lowered interest rates at its last meeting.

    C. Congress increased the minimum wage rate in January.

    <u>D.</u> Jenny's wage rate rose, and in response, she decided to work more hours.

The wages of a particular worker are a microeconomics topic.

56. The study of microeconomic theory focuses on the

A. Structure and performance of individual markets and the operation of the price system.

B. Operation of the entire economy.

C. Role of the banking system in the economy.

D. Interaction of international trade and domestic production of goods and services.

Microeconomics studies how the foundation of an economy and individual markets work.

57.	Microeconomics is concerned with issues such as

A. The demand for bottled water by individuals.

B. The level of inflation in the economy.

C. Maintaining a strong level of economic growth.

D. All of the choices are correct.

The demand for a particular product is a microeconomic topic.

58.	Economic models are used by economists to

A. Predict economic behavior.

B. Develop economic policies.

C. Explain economic behavior.

D. All of the choices are correct.

The economic models are designed to benefit society and prevent us from

doing things that lead to lower living standards.

59.   The Latin phrase *ceteris paribus* means

A. The production possibilities curve never shifts.

B. Laissez faire.

<u>C.</u> Other things remain equal.

D. The invisible hand.

With so many variables in economics, it's usually best to isolate their movements and impacts, without the complications of everything else changing as well.

60.
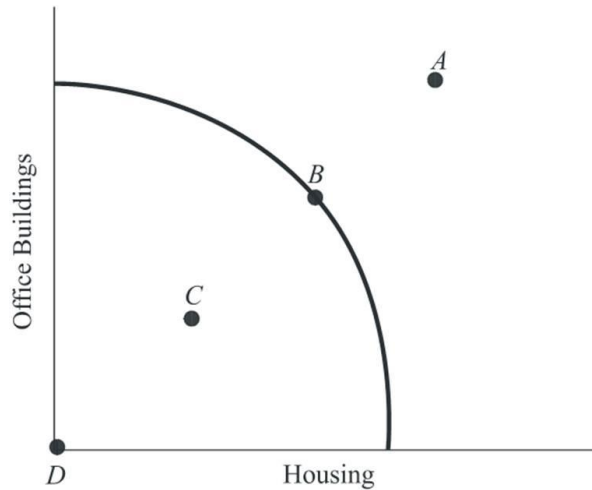
Figure 1.1
Production Possibilities Curve

At which point is society employing some of its available technology but not all of it? (See Figure 1.1.)

A. A.

B. B.

<u>C.</u> C.

D. D.

We could produce more by using the resources we have more efficiently.

61.

Figure 1.1
Production Possibilities Curve

At which point is society producing the most output possible with the available resources and technology? (See Figure 1.1.)

A. A.

B. B.

C. C.

D. D.

We are producing efficiently when we are on the production possibilities curve.

62.
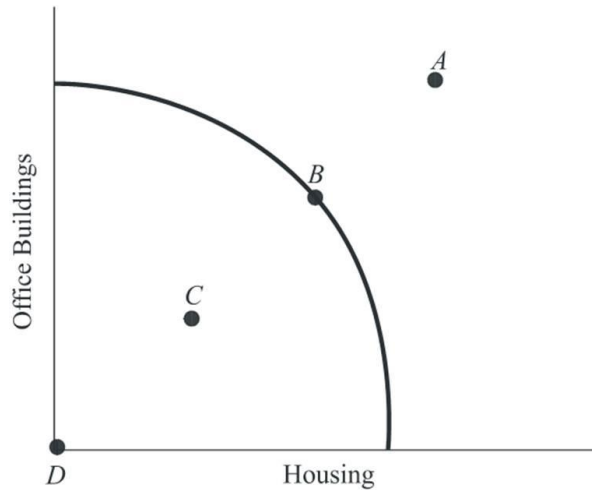
Figure 1.1
Production Possibilities Curve

At which point is society producing some of each type of structure but still producing inefficiently? (See Figure 1.1.)

A. A.

B. B.

<u>C.</u> C.

D. D.

More could be produced by moving to a point on the production possibilities curve.

63.
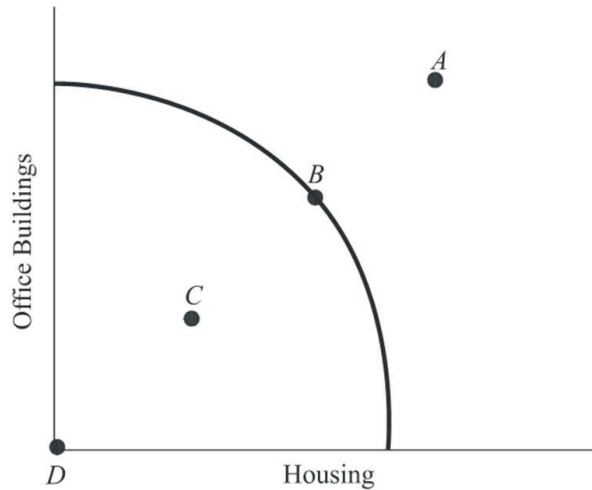
Figure 1.1
Production Possibilities Curve

At which point might society be able to produce if new resources were

discovered but cannot produce with current resources? (See Figure 1.1.)

A. A.

B. B.

C. C.

D. D.

Economic growth makes it possible to produce more of both goods.

64.
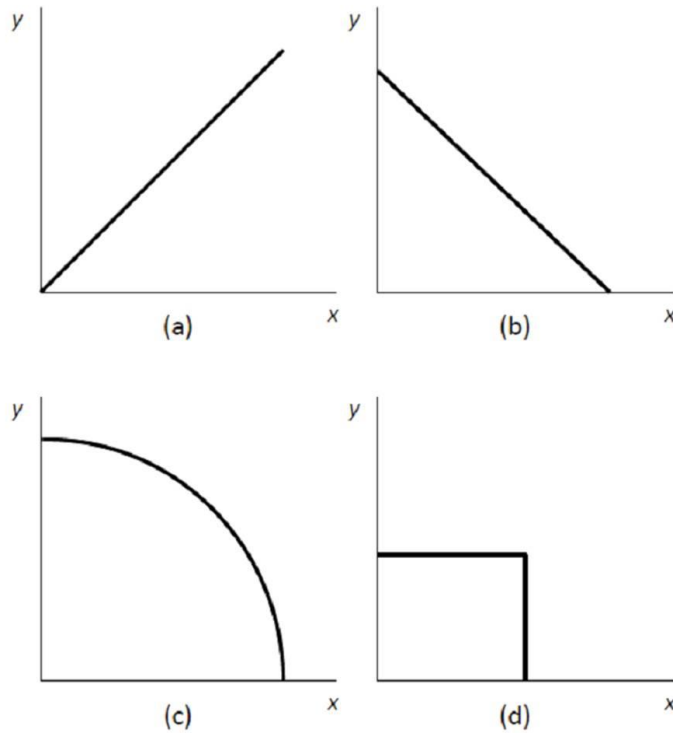
Figure 1.2
Production Possibilities Curves

Choose the letter of the curve in Figure 1.2 that best represents a production possibilities curve for two goods that obey the law of increasing opportunity costs:

A. A.

B. B.

C. C.

D. D.

A bowed-out production possibilities curve means opportunity costs are not constant.

65.
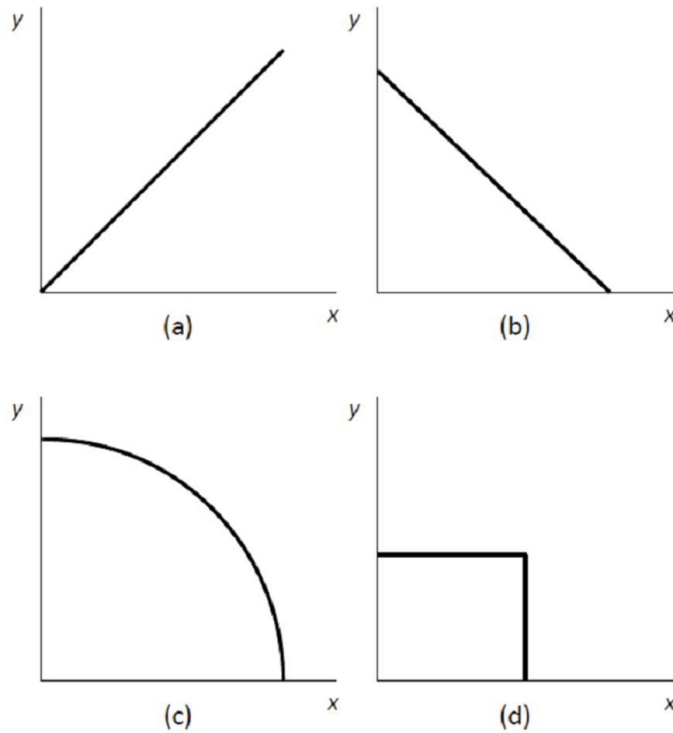
Figure 1.2
Production Possibilities Curves

Choose the letter of the curve in Figure 1.2 that best represents a production possibilities curve for two goods for which there are constant opportunity costs:

A. A.

B. B.

C. C.

D. D.

The straight-line production possibilities curve means resources are equally suited to both goods.

66.
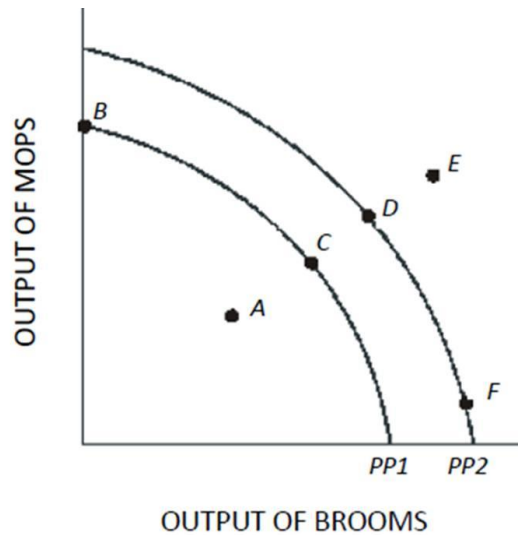
Figure 1.3

Using Figure 1.3 and PP1, an increase in the capacity to produce can be represented by a movement from

A. Point A to point B.

B. Point A to point C.

C. Point B to point C.

D. Point C to point F.

Economic growth shifts the production possibilities curve away from the origin, so more of both goods can be produced.

67.
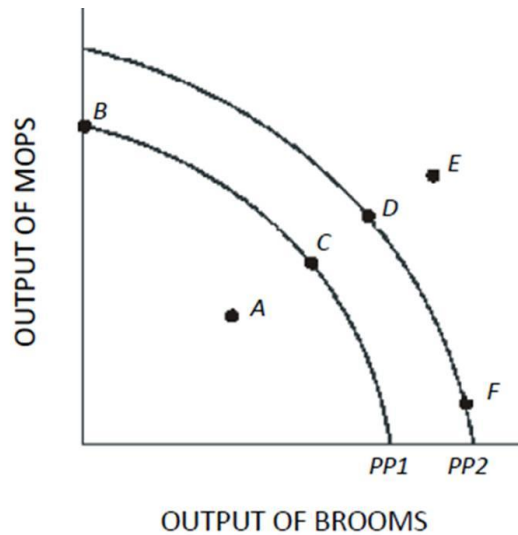
Figure 1.3

Using Figure 1.3 and PP1, at point A,

A. There is inefficient use of available resources.

B. The available technology keeps production inside PP1.

C. All available resources are being used efficiently.

D. An increase in the production of mops would definitely require a decrease in the production of brooms.

Any point below the production possibilities curve is considered an inefficient point.

68.

Figure 1.3

Which of the following is true about the combination of mops and brooms represented by point E in Figure 1.3 and using PP1?

A. Point E is efficient now.

B. Point E is attainable if this economy uses more of its available resources.

C. Point E is unattainable if this economy becomes more efficient.

D. Point E is attainable only if more resources become available or technological advances are made.

Any point outside the production possibilities curve cannot be attained without growth in resources or better technology.

69.
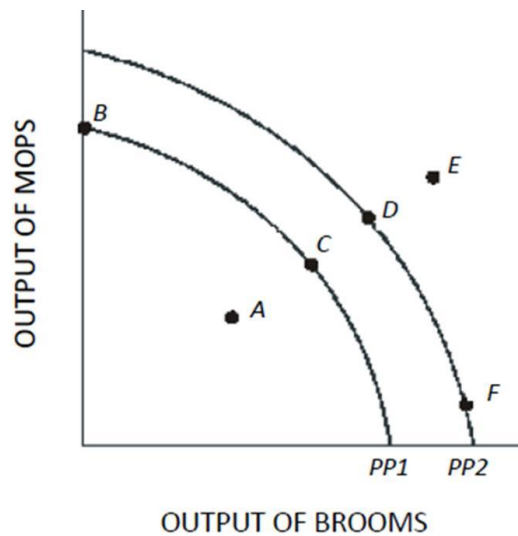
Figure 1.3

An increase in the proportion of the population that is unemployed above the normal rate is best represented in Figure 1.3 and using PP1 by a movement from point

A. C to point D.

B. D to point C.

C. C to point A.

D. E to point D.

Inefficient points of production can be the result of unused labor or capital.

70.

OUTPUT OF MOPS

B

E

D

C

A

F

PP1   PP2

OUTPUT OF BROOMS
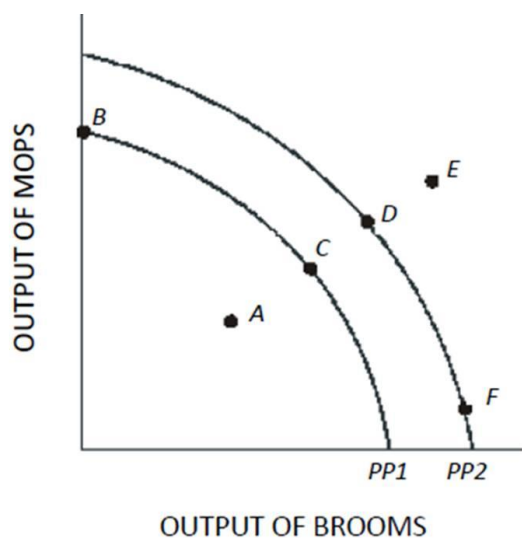
Figure 1.3

A movement from point F to point D in Figure 1.3 results in

A. A reallocation of resources from mop production to broom production.

B. Permanent unemployment of workers producing brooms.

C. A reallocation of resources from broom production to mop production.

D. More efficient production.

Moving from one point to another along the production possibilities curve represents changing the combination of the two goods produced.
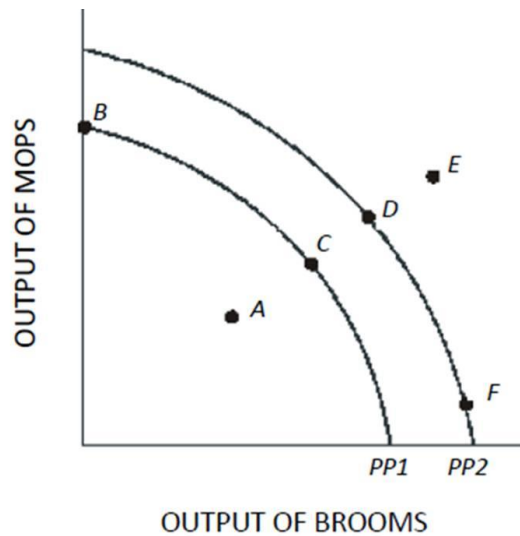
71.

Figure 1.3

In Figure 1.3, a shift of the production possibilities curve from PP1 to PP2 could be caused by

A. A decrease in the quantity of raw materials available.

B. A decline in the production skills of workers.

C. The use of improved production technology.

D. All of the choices are correct.

Economic growth is illustrated as an outward shift of the production possibilities curve.
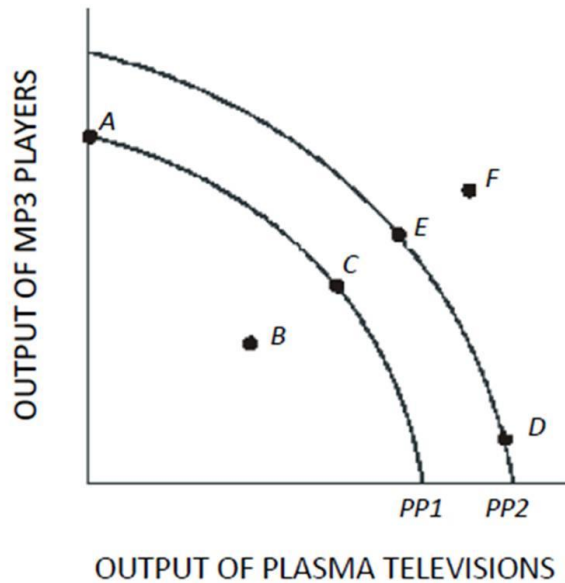
72.

Figure 1.4

Using Figure 1.4 and starting at PP1, an increase in the capacity to produce
can be represented by a movement from point

A. A to point B.

B. C to point E.

C. A to point C.

D. D to point E.

Production possibility curves that are further away from the origin represent a
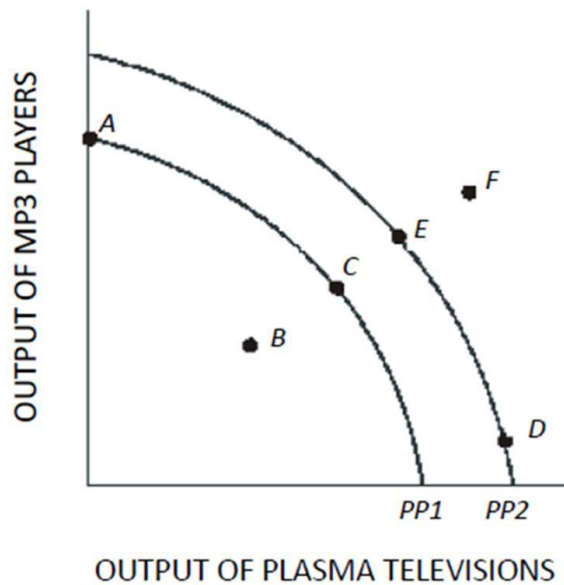greater ability to produce goods and services.

73.

Figure 1.4

Which of the following is true about the combination of plasma televisions and MP3 players represented by point F in Figure 1.4?

A. Point F is inefficient now.

B. Point F is unattainable even with advances in technology.

C. Point F will be more easily attainable if the government takes control of all privately run factories.

D. Point F can possibly be reached if more economic resources become available or technology improves.

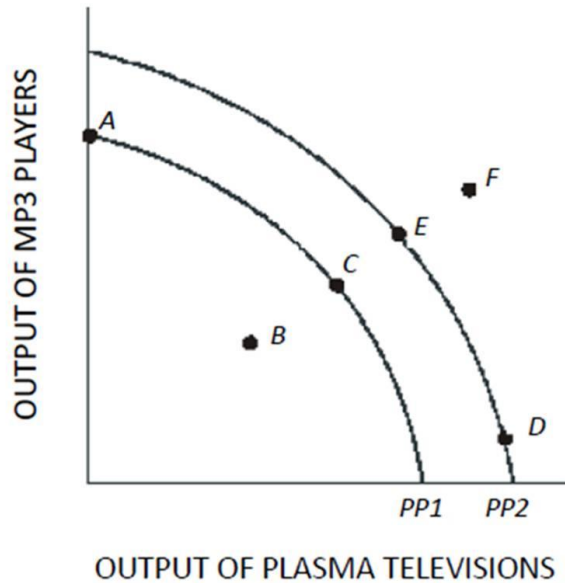This point is not possible with the current endowment of resources and technology.

74.

Figure 1.4

A movement from point C to point A in Figure 1.4 results in

A. More efficient production.

B. Permanent unemployment of workers producing plasma televisions.

C. A reallocation of resources from MP3 player production to plasma television production.

D. A reallocation of resources from plasma television production to MP3 player production.

Moving from one point to another on the same production possibilities curve represents changing the combination of the two goods.
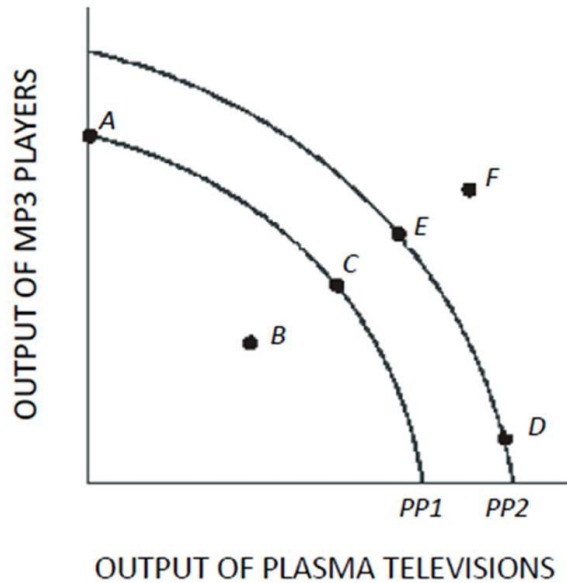
75.

Figure 1.4

In Figure 1.4, a shift of the production possibilities curve from PP1 to PP2 could be caused by

A. An increase in the unemployment rate.

B. Implementation of training programs that improve the skills of workers.

C. A flu epidemic that makes many workers sick.

D. Tougher pollution controls for the producers of plasma televisions and MP3 players.

An increase in any resource, including physical or human capital, increases the production possibilities curve.
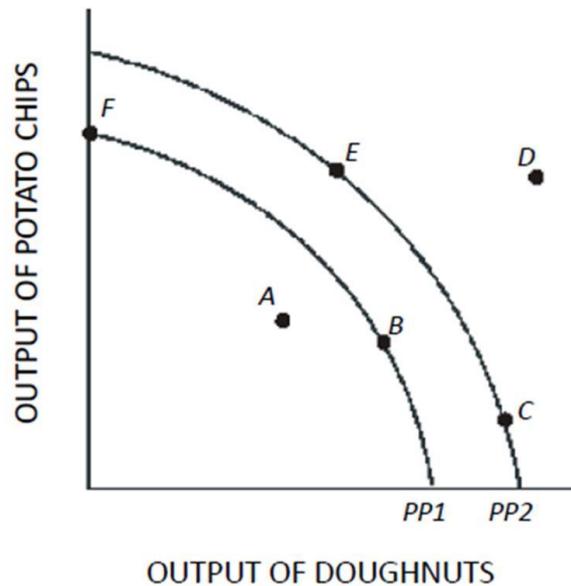
76.

Figure 1.5

Using Figure 1.5, if an economy has the capacity to produce represented by PP2, then point E represents

A. A constant trade-off between potato chips and doughnuts.

B. A combination of potato chips and doughnuts that is not attainable.

C. An efficient use of resources.

D. None of the choices are correct.

Any point on the production possibilities curve is efficient.

77.

OUTPUT OF POTATO CHIPS

F

E

D

A

B

C

PP1   PP2

OUTPUT OF DOUGHNUTS

Figure 1.5

Using Figure 1.5, if an economy is currently producing on PP2, which of the following would shift the production possibilities curve toward PP1?

A. An increase in the quantity of labor available.

B. A decrease in the amount of capital available.

C. An increase in the level of unemployment above the normal level.
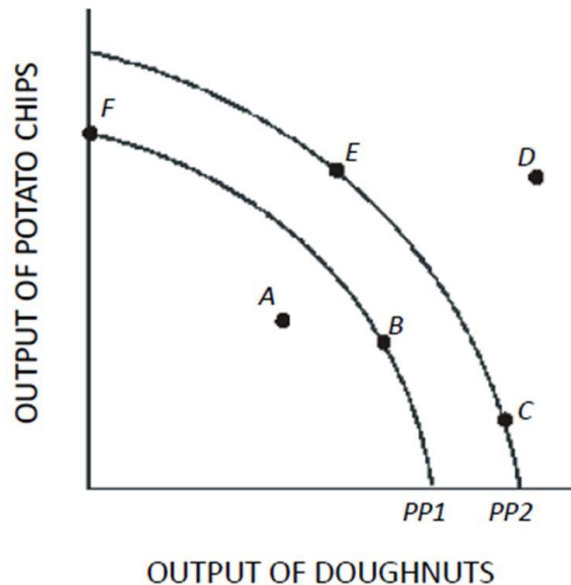
D. An advancement in technology.

If resources decrease, the production possibilities curve will shift inward toward the origin.

78.

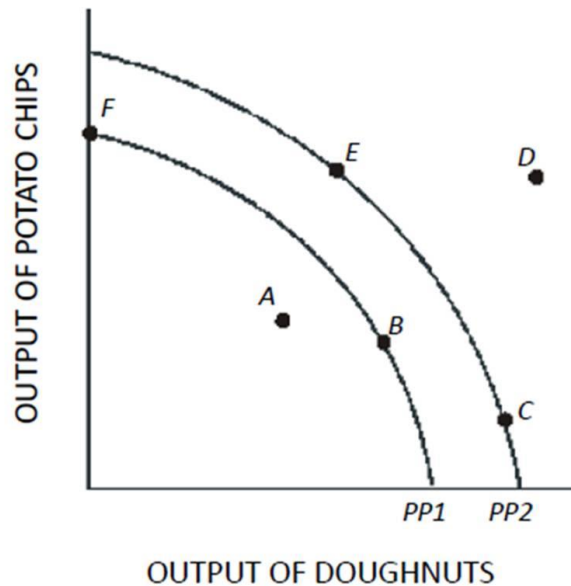**Figure 1.5**

In Figure 1.5, at which of the following points would the opportunity cost of producing another doughnut be greatest?

A. A.

B. F.

C. C.

D. E.

Opportunity cost is determined by the slope of the production possibilities curve. The slope is steepest at point "C" for all of the possible answers. Since point "A" is not on a PPC, its slope cannot be determined.

79.
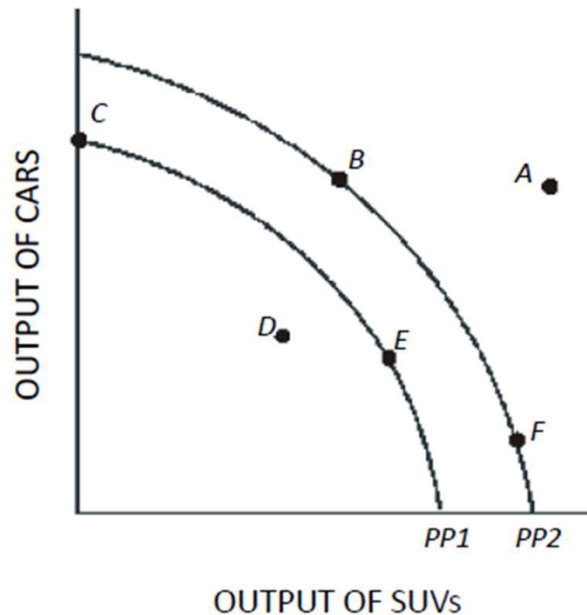
Figure 1.6

Using Figure 1.6, if an economy has the capacity to produce represented by PP1, then point E represents

A. A combination of cars and SUVs that is not attainable.

B. A constant trade-off between cars and SUVs.

C. A change in technology.

D. An efficient use of resources.

Any point on the production possibilities curve is considered efficient.

80.
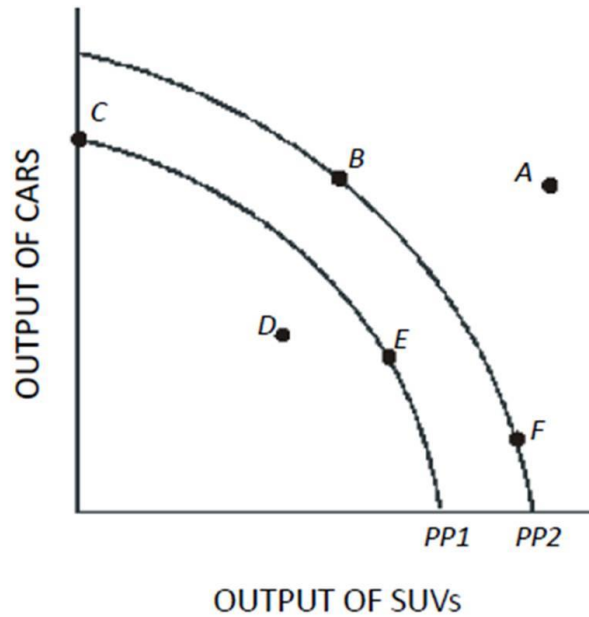
Figure 1.6

In Figure 1.6, if the opportunity cost of producing cars was zero at all levels of production, the production possibilities curve would be best be represented by a

<u>A.</u> Vertical line.

B. 45-degree line starting at the origin.

C. Horizontal line.

D. Circle.

We would be able to produce as many cars as we want without reducing the amount of SUVs in such a situation. This would be the "Free Lunch" that is not found in the real world.

81.
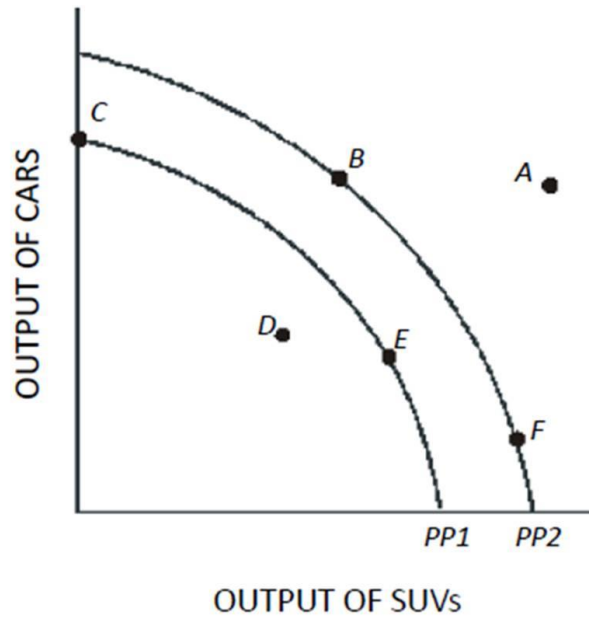
Figure 1.6

In Figure 1.6, at which of the following points would the opportunity cost of producing one more car be the lowest?

A. F.

B. B.

C. C.

D. D.

Since most of the economy is devoted to SUV production at point F, allowing more resources to go toward car production would result in only a small loss of SUVs (a low opportunity cost). Since point "D" is not on a PPC, its slope cannot not be determined.

82.
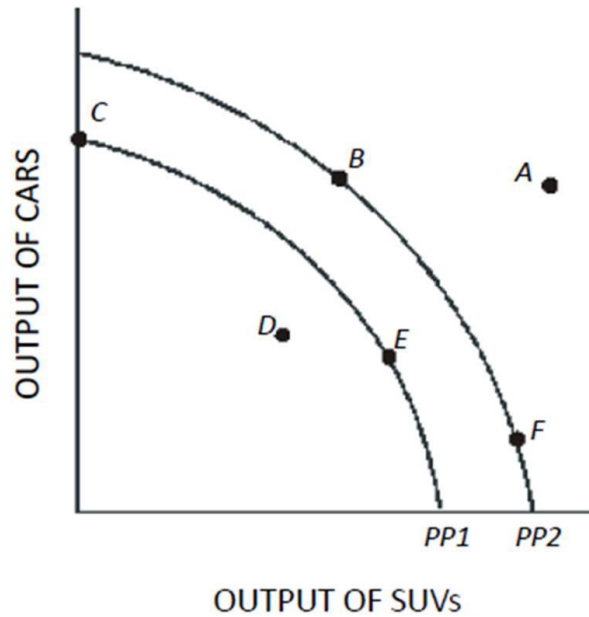
Figure 1.6

In Figure 1.6, at which of the following points would the opportunity cost of producing one more SUV be highest?

A. A.

B. B.

C. C.

D. F.

Opportunity cost is determined by the slope of the production possibilities curve. The slope is steepest at point "F" for all of the possible answers. Since point "A" is not on a PPC, its slope cannot be determined.

83.
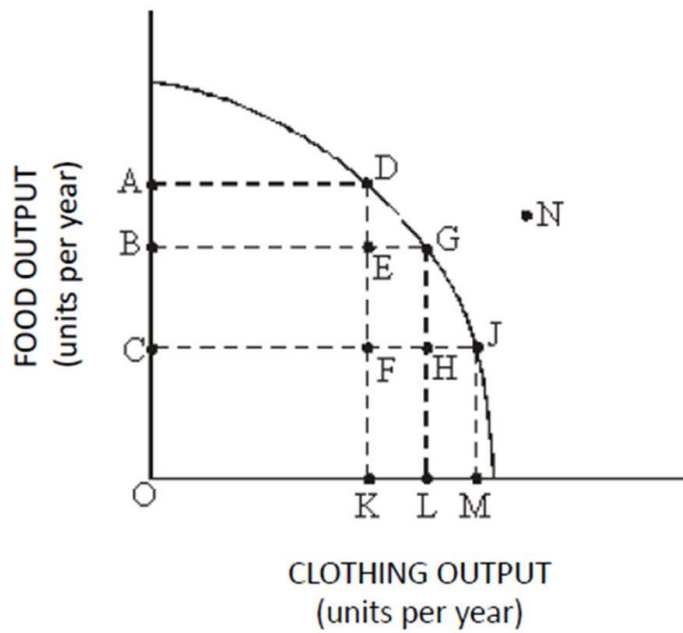
Figure 1.7

Refer to Figure 1.7. This economy will achieve efficiency in production at

A. Point D only.

B. Point G only.

C. Point J only.

D. Points D, G, and J.

Any point along the production possibilities curve is considered an efficient point.

84.
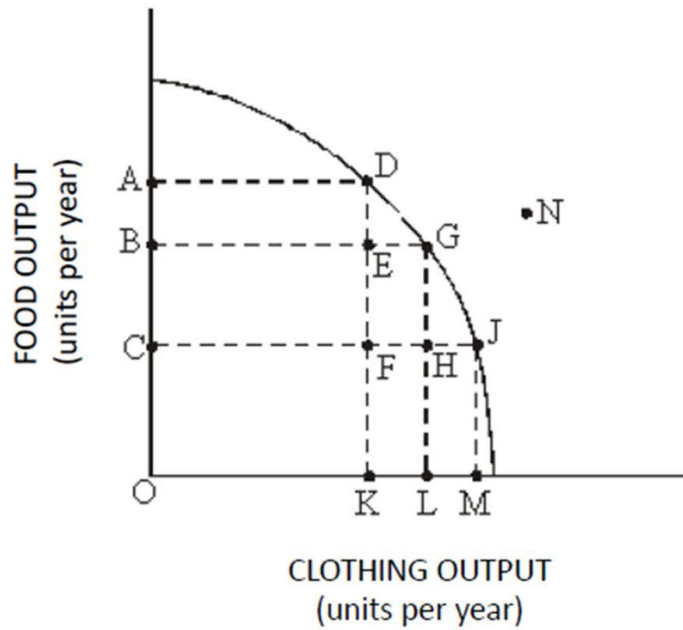
Figure 1.7

Refer to Figure 1.7. The cost of producing at point G rather than point D is

A. OA units of food.

B. KL units of clothing.

C. AB units of food.

D. OL units of clothing.

To get additional clothing, food must be given up as resources are shifted out of the food industry.

85.
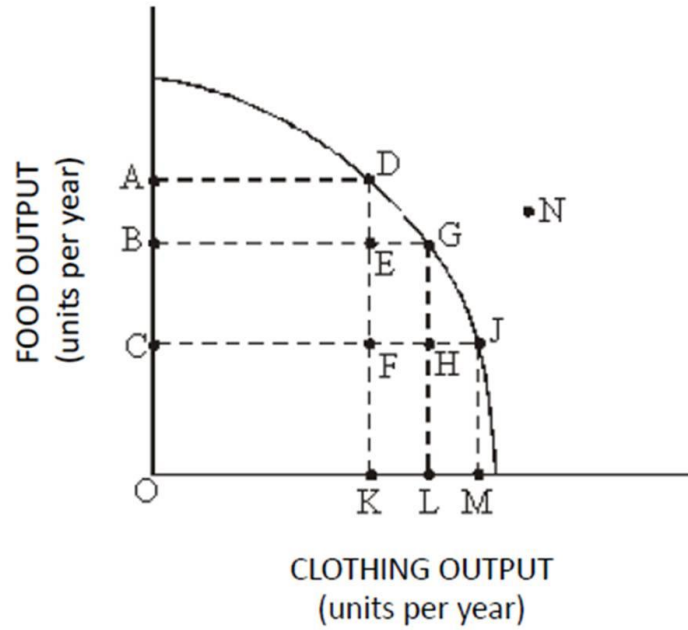
Figure 1.7

Refer to Figure 1.7. The benefit of producing at point G rather than point D is

A. OA units of food.

B. KL units of clothing.

C. AB units of food.

D. OL units of clothing.

By moving resources out of the food industry and into the clothing industry, more clothing may be produced.

86.
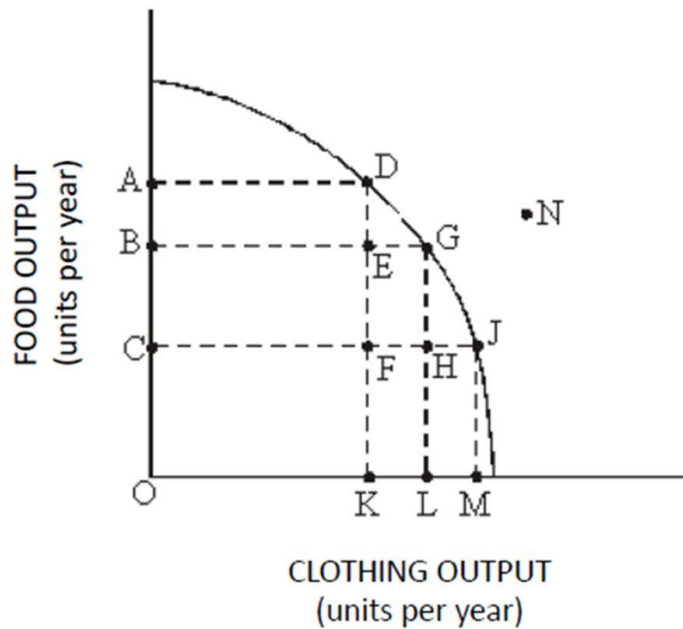
Figure 1.7

Refer to Figure 1.7. The cost of producing at point D rather than point J is

A. KM units of clothing.

B. AC units of food.

C. OM units of clothing.

D. OA units of food.

Additional food may be produced by giving up the opportunity to produce clothing.

87.
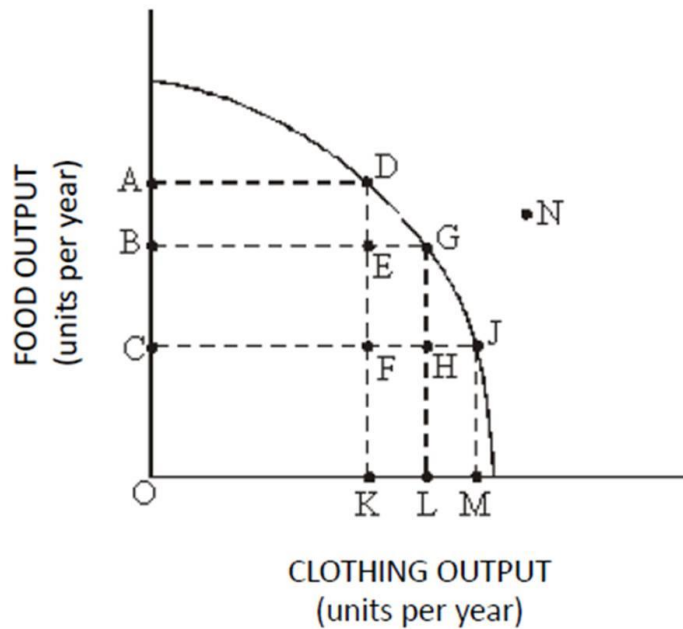
Figure 1.7

Refer to Figure 1.7. If this economy is currently producing at point F, then by employing more resources this economy

A. Can move to point D, but not points G or J.

B. Can move to points D, G, or J.

C. Can move to point G, but not points D or J.

D. Will remain at point F.

Inefficient production results when resources are not being fully used. Using more resources moves us toward—in this case, onto—the production possibilities curve.

88.
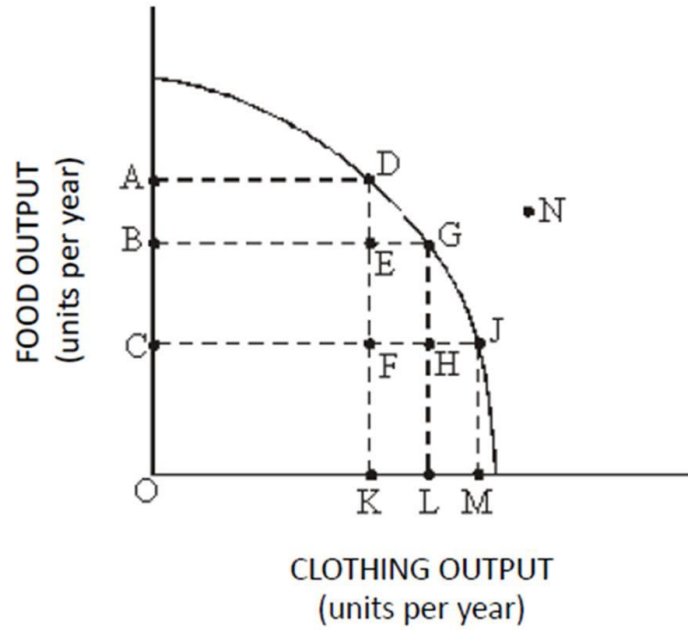
Figure 1.7

Refer to Figure 1.7. Which of the following points are considered to be inefficient?

A. D.

B. E.

C. G.

D. D, G, and J.

Production choices that fall inside the production possibilities curve are considered inefficient.

89.
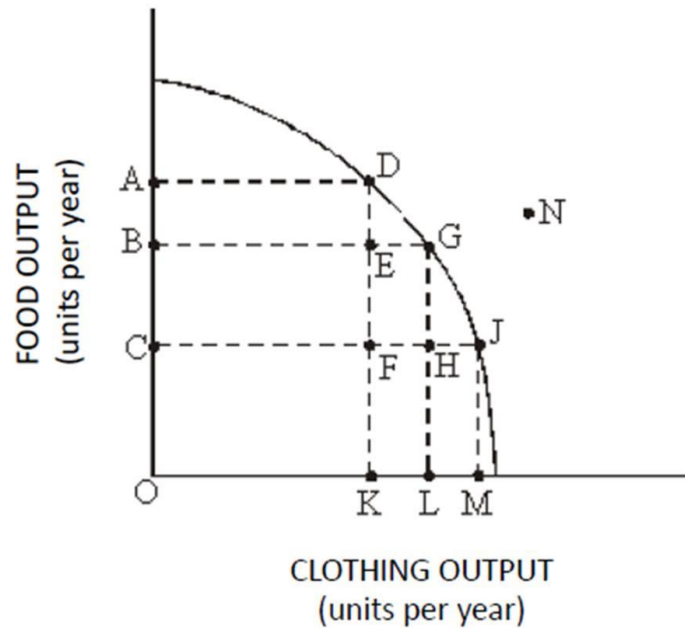
Figure 1.7

Refer to Figure 1.7. Which of the following points are unattainable, *ceteris paribus*?

A. G.

B. F.

C. N.

D. E.

Any point beyond the production possibilities curve is an unattainable level of production, *ceteris paribus*.

90.
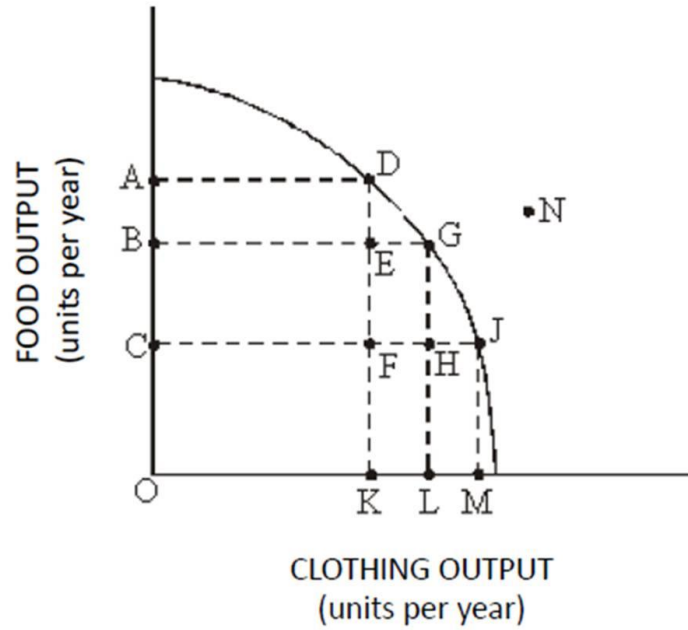
Figure 1.7

Refer to Figure 1.7. Which of the following points show unemployment of resources above the normal rate?

A. H.

B. J.

C. N.

D. D.

Resources must be unemployed at production levels below the production possibilities curve.

91. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

On the basis of your calculations in Table 1.1, you may infer that the law of increasing opportunity costs applies to

A. Stealth bombers but not to B-1 bombers.

B. B-1 bombers but not to Stealth bombers.

<u>C.</u> Both B-1 bombers and Stealth bombers.

D. Neither B-1 bombers nor Stealth bombers.

Since the opportunity cost is not constant, the law of increasing opportunity cost will apply to both goods.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9	1 ÷ 1 = 1	1	1 ÷ 1 = 1
U	7	1 ÷ 2 = 0.5	2	2 ÷ 1 = 2
V	4	1 ÷ 3 = 0.33	3	3 ÷ 1 = 3

Table 1.1 Answers

92. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

On the basis of your calculations in Table 1.1, what is the opportunity cost of producing at point S rather than point T?

A. 1 Stealth bomber.

B. 1 B-1 bomber.

C. 10 Stealth bombers.

D. 0.9 Stealth bombers.

To produce an extra Stealth bomber, we must give up the one B-1 bomber that was being produced at point T.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9	$1 \div 1 = 1$	1	$1 \div 1 = 1$
U	7	$1 \div 2 = 0.5$	2	$2 \div 1 = 2$
V	4	$1 \div 3 = 0.33$	3	$3 \div 1 = 3$

Table 1.1 Answers

93. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

On the basis of your calculations in Table 1.1, what is the opportunity cost of producing at point V rather than point U?

A. 3 B-1 bombers.

B. 1 B-1 bomber.

C. 4 Stealth bombers.

<u>D.</u> 3 Stealth bombers.

An extra B-1 bomber will cost three Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9	$1 \div 1 = 1$	1	$1 \div 1 = 1$
U	7	$1 \div 2 = 0.5$	2	$2 \div 1 = 2$
V	4	$1 \div 3 = 0.33$	3	$3 \div 1 = 3$

Table 1.1 Answers

94. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

In the production range of 7 to 9 Stealth bombers, the opportunity cost of producing 1 more Stealth bomber in terms of B-1s is

A. 0.

B. 3.

<u>C.</u> 0.5.

D. 2.

In this production range, 2 additional stealth bombers require us to forgo the opportunity to produce one entire B-1 bomber, or half a B-1 bomber for each Stealth bomber.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9	$1 \div 1 = 1$	1	$1 \div 1 = 1$
U	7	$1 \div 2 = 0.5$	2	$2 \div 1 = 2$
V	4	$1 \div 3 = 0.33$	3	$3 \div 1 = 3$

Table 1.1 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

95. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

The highest opportunity cost anywhere in Table 1.1 for Stealth bombers in terms of B-1 bombers is

A. 1 B-1 bomber per Stealth bomber.

B. 3 B-1 bombers per Stealth bomber.

C. 2 B-1 bombers per Stealth bomber.

D. 0.5 B-1 bomber per Stealth bomber.

This is one of the extreme points on the production possibilities curve where it meets the axis on the Stealth bomber end.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9	1 ÷ 1 = 1	1	1 ÷ 1 = 1
U	7	1 ÷ 2 = 0.5	2	2 ÷ 1 = 2
V	4	1 ÷ 3 = 0.33	3	3 ÷ 1 = 3

Table 1.1 Answers

96. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

The highest opportunity cost anywhere in Table 1.1 for B-1 bombers in terms of Stealth bombers is

A. 1 Stealth bomber per B-1 bomber.

B. 3 Stealth bombers per B-1 bomber.

C. 2 Stealth bombers per B-1 bomber.

D. 0.5 Stealth bomber per B-1 bomber.

This is one of the extreme points on the production possibilities curve where it meets the axis on the B-1 bomber end.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9	$1 \div 1 = 1$	1	$1 \div 1 = 1$
U	7	$1 \div 2 = 0.5$	2	$2 \div 1 = 2$
V	4	$1 \div 3 = 0.33$	3	$3 \div 1 = 3$

Table 1.1 Answers

97. Table 1.1 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9		1	
U	7		2	
V	4		3	

Table 1.1
Production Possibilities for Bombers

The lowest opportunity cost anywhere in Table 1.1 for B-1 bombers in terms of Stealth bombers is

A. 0 Stealth bombers per B-1 bomber.

B. 2 Stealth bombers per B-1 bomber.

C. 1 Stealth bomber per B-1 bomber.

D. 0.5 Stealth bomber per B-1 bomber.

This is one of the extreme points on the production possibilities curve where it meets the axis on the Stealth bomber end.

Combination	Number of Stealth Bombers	Opportunity cost of Stealth Bombers in Terms of B-1s	Number of B-1s	Opportunity Cost of B-1s in Terms of Stealth Bombers
S	10		0	
T	9	$1 \div 1 = 1$	1	$1 \div 1 = 1$
U	7	$1 \div 2 = 0.5$	2	$2 \div 1 = 2$
V	4	$1 \div 3 = 0.33$	3	$3 \div 1 = 3$

Table 1.1 Answers

98. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

On the basis of your calculations in Table 1.2, the law of increasing opportunity costs applies to

A. Both B-1 and Stealth bombers.

B. B-1 bombers but not to Stealth bombers.

C. Stealth bombers but not to B-1 bombers.

D. Neither bomber.

This means the production possibilities curve for B-1 bombers and stealth bombers is bowed out.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180	15 ÷ 15 = 1	35	15 ÷ 15 = 1
C	150	10 ÷ 30 = 0.33	45	30 ÷ 10 = 3
D	100	5 ÷ 50 = 0.1	50	50 ÷ 5 = 10

Table 1.2 Answers

99. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

On the basis of your calculations in Table 1.2, what is the opportunity cost of producing at point B rather than point C?

A. 45 B-1 bombers.

B. 35 Stealth bombers.

C. 180 Stealth bombers.

D. 10 B-1 bombers.

From point C to point B, to get 30 (180 - 150) additional Stealth bombers we must give up 10 (45 - 35) B-1 bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180	15 ÷ 15 = 1	35	15 ÷ 15 = 1
C	150	10 ÷ 30 = 0.33	45	30 ÷ 10 = 3
D	100	5 ÷ 50 = 0.1	50	50 ÷ 5 = 10

Table 1.2 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

100. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

On the basis of your calculations in Table 1.2, what is gained by producing at point B rather than point C?

A. 45 B-1 bombers.

B. 30 Stealth bombers.

C. 180 Stealth bombers.

D. 10 B-1 bombers.

Reallocating resources to Stealth bombers will allow 30 (180 - 150) additional Stealth bombers to be produced.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180	15 ÷ 15 = 1	35	15 ÷ 15 = 1
C	150	10 ÷ 30 = 0.33	45	30 ÷ 10 = 3
D	100	5 ÷ 50 = 0.1	50	50 ÷ 5 = 10

Table 1.2 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

101. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

On the basis of your calculations in Table 1.2, what is gained by producing at point B rather than point A?

A. 35 B-1 bombers.

B. 195 Stealth bombers.

C. 15 B-1 bombers.

D. 15 Stealth bombers.

Reallocating resources to B-1 bombers will allow 15 (35 - 20) B-1 bombers to be produced.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180	15 ÷ 15 = 1	35	15 ÷ 15 = 1
C	150	10 ÷ 30 = 0.33	45	30 ÷ 10 = 3
D	100	5 ÷ 50 = 0.1	50	50 ÷ 5 = 10

Table 1.2 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

102. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

Refer to Table 1.2. In the production range of 20 to 35 B-1 bombers, the opportunity cost of producing 1 more B-1 bomber is

A. 195/20 of Stealth bombers.

B. 35/20 of Stealth bombers.

C. 15 Stealth bombers.

D. 1 Stealth bomber.

In the production range of 20 to 35 B-1 bombers, 15 (35 - 20) bombers are being added while 15 (195 - 180) Stealth bombers are being lost. Therefore for each B-1 bomber, 1 (15/15) Stealth bomber is given up.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180	15 ÷ 15 = 1	35	15 ÷ 15 = 1
C	150	10 ÷ 30 = 0.33	45	30 ÷ 10 = 3
D	100	5 ÷ 50 = 0.1	50	50 ÷ 5 = 10

Table 1.2 Answers

103. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

The highest opportunity cost anywhere in Table 1.2 for B-1 bombers in terms of Stealth bombers is

A. 10 Stealth bombers per B-1 bomber.

B. .33 B-1 bomber per Stealth bomber.

C. .10 B-1 bomber per Stealth bomber.

D. .10 Stealth bomber per B-1 bomber.

This represents an extreme point on the production possibilities curve where the curve meets the axis on the Stealth bomber end.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180	15 ÷ 15 = 1	35	15 ÷ 15 = 1
C	150	10 ÷ 30 = 0.33	45	30 ÷ 10 = 3
D	100	5 ÷ 50 = 0.1	50	50 ÷ 5 = 10

Table 1.2 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

104. Table 1.2 shows the hypothetical trade-off between different combinations of Stealth bombers and B-1 bombers that might be produced in a year with the limited U.S. capacity, *ceteris paribus*. Complete the table by calculating the required opportunity costs for both the B-1 and Stealth bombers.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180		35	
C	150		45	
D	100		50	

Table 1.2
Production Possibilities for Bombers

The lowest opportunity cost anywhere in Table 1.2 for Stealth bombers in terms of B-1 bombers is

A. .4 B-1 bomber per Stealth bomber.

B. .3 B-1 bomber per Stealth bomber.

C. .2 B-1 bomber per Stealth bomber.

D. .10 B-1 bomber per Stealth bomber.

This represents an extreme point on the production possibilities curve where the curve meets the axis on the B-1 bomber end.

Combination	Number of Stealth Bombers	Opportunity Cost of Stealth Bombers in Terms of B-1 Bombers	Number of B-1 Bombers	Opportunity Cost of B-1 Bombers in Terms of Stealth Bombers
A	195		20	
B	180	15 ÷ 15 = 1	35	15 ÷ 15 = 1
C	150	10 ÷ 30 = 0.33	45	30 ÷ 10 = 3
D	100	5 ÷ 50 = 0.1	50	50 ÷ 5 = 10

Table 1.2 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-02 What the production-possibilities curve represents.

Topic: WHAT ECONOMICS IS ALL ABOUT

105. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs	Number of Combs	Opportunity Cost of Combs in Terms of Brushes
J	0		4	
K	10		3	
L	17		2	
M	21		1	
N	23		0	

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, what is the opportunity cost of producing at point M rather than point N?

A. 23 combs.

B. 21 combs.

C. 1 brush.

D. 2 brushes.

2 (23 - 21) brushes must be given up in order to get an additional comb (1 - 0).

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0			4		
K	10	1 ÷ 10 = 0.10		3		10 ÷ 1 = 10
L	17	1 ÷ 7 = 0.14		2		7 ÷ 1 = 7
M	21	1 ÷ 4 = 0.25		1		4 ÷ 1 = 4
N	23	1 ÷ 2 = 0.50		0		2 ÷ 1 = 2

Table 1.3 Answers

106. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, what is gained by producing at point M rather than point N?

A. 23 combs.

B. 21 combs.

<u>C.</u> 1 comb.

D. 2 combs.

Shifting resources toward production of combs allows for greater comb production (1 - 0).

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10		$1 \div 10 = 0.10$		3		$10 \div 1 = 10$
L	17		$1 \div 7 = 0.14$		2		$7 \div 1 = 7$
M	21		$1 \div 4 = 0.25$		1		$4 \div 1 = 4$
N	23		$1 \div 2 = 0.50$		0		$2 \div 1 = 2$

Table 1.3 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

107. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs	Opportunity Cost of Combs in Terms of Brushes
J	0			4	
K	10			3	
L	17			2	
M	21			1	
N	23			0	

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, what is gained from producing at point L rather than point K?

A. 17 combs.

B. 10 combs.

C. 1 brush.

D. 7 brushes.

Shifting resources toward production of brushes allows for greater brush production (17 - 10).

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0			4		
K	10	$1 \div 10 = 0.10$		3		$10 \div 1 = 10$
L	17	$1 \div 7 = 0.14$		2		$7 \div 1 = 7$
M	21	$1 \div 4 = 0.25$		1		$4 \div 1 = 4$
N	23	$1 \div 2 = 0.50$		0		$2 \div 1 = 2$

Table 1.3 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

108. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, the law of increasing opportunity costs applies to

<u>A.</u> Both brushes and combs.

B. Combs but not brushes.

C. Brushes but not combs.

D. Neither brushes nor combs.

A production possibilities curve will be bowed out from the origin where there are increasing opportunity costs.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0			4		
K	10	1 ÷ 10 = 0.10		3		10 ÷ 1 = 10
L	17	1 ÷ 7 = 0.14		2		7 ÷ 1 = 7
M	21	1 ÷ 4 = 0.25		1		4 ÷ 1 = 4
N	23	1 ÷ 2 = 0.50		0		2 ÷ 1 = 2

Table 1.3 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

109. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs	Number of Combs	Opportunity Cost of Combs in Terms of Brushes
J	0		4	
K	10		3	
L	17		2	
M	21		1	
N	23		0	

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, in the production range of 2 to 3 combs the opportunity cost of producing 1 more comb in terms of brushes is

A. 3.33.

B. 7.0.

C. 0.67.

D. 0.14.

Shifting resources toward more combs requires a drop in the production of brushes.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0			4		
K	10	1 ÷ 10 = 0.10		3		10 ÷ 1 = 10
L	17	1 ÷ 7 = 0.14		2		7 ÷ 1 = 7
M	21	1 ÷ 4 = 0.25		1		4 ÷ 1 = 4
N	23	1 ÷ 2 = 0.50		0		2 ÷ 1 = 2

Table 1.3 Answers

110. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, in the production range of 21 to 23 brushes the opportunity cost of producing more comb in terms of brushes is

A. 1/21.

B. 21/23.

C. 1/2.

D. 4.

Shifting resources toward more brushes (2) requires a drop in the production of combs (1). Therefore for each 1 brush, ½ a comb is given up (1 divided by 2).

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0			4		
K	10	1 ÷ 10 = 0.10		3		10 ÷ 1 = 10
L	17	1 ÷ 7 = 0.14		2		7 ÷ 1 = 7
M	21	1 ÷ 4 = 0.25		1		4 ÷ 1 = 4
N	23	1 ÷ 2 = 0.50		0		2 ÷ 1 = 2

Table 1.3 Answers

111. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, in the production range of 1 to 2 combs the opportunity cost of producing 1 more comb in terms of brushes is

A. 4.

B. 1/2.

C. 2/17.

D. 1/7.

Shifting resources toward more combs requires a drop in the production of brushes.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10		$1 \div 10 = 0.10$		3		$10 \div 1 = 10$
L	17		$1 \div 7 = 0.14$		2		$7 \div 1 = 7$
M	21		$1 \div 4 = 0.25$		1		$4 \div 1 = 4$
N	23		$1 \div 2 = 0.50$		0		$2 \div 1 = 2$

Table 1.3 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-01 How scarcity creates opportunity costs.

Topic: WHAT ECONOMICS IS ALL ABOUT

112. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes		Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0				4		
K	10				3		
L	17				2		
M	21				1		
N	23				0		

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, the highest opportunity cost for brushes in terms of combs is

A. 0.10 comb per brush.

B. 23 combs per brush.

<u>C.</u> 0.50 comb per brush.

D. 0.29 comb per brush.

This is a point where the production possibilities curve touches the axis. The opportunity costs are 0.10, 0.14, 0.25, and 0.5, respectively, as we increase brush production.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0			4		
K	10	$1 \div 10 = 0.10$		3		$10 \div 1 = 10$
L	17	$1 \div 7 = 0.14$		2		$7 \div 1 = 7$
M	21	$1 \div 4 = 0.25$		1		$4 \div 1 = 4$
N	23	$1 \div 2 = 0.50$		0		$2 \div 1 = 2$

Table 1.3 Answers

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: 3 Hard

Learning Objective: 01-02 What the production-possibilities curve represents.

Topic: WHAT ECONOMICS IS ALL ABOUT

113. Table 1.3 shows the hypothetical trade-off between different combinations of brushes and combs that might be produced in a year with the limited capacity for Country X, *ceteris paribus*. Complete the table by calculating the required opportunity costs for brushes and combs.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs	Number of Combs	Opportunity Cost of Combs in Terms of Brushes
J	0		4	
K	10		3	
L	17		2	
M	21		1	
N	23		0	

Table 1.3
Production Possibilities for Brushes and Combs

On the basis of your calculations in Table 1.3, the lowest opportunity cost for combs in terms of brushes is

A. 10 brushes per comb.

B. 2 brushes per comb.

C. 0.33 brush per comb.

D. 8.5 brushes per comb.

This is a point where the production possibilities curve touches the axis. For each combination, the opportunity costs for 1 comb are 10, 7, 4, and 2.

Combination	Number of Brushes	Opportunity Cost of Brushes in Terms of Combs		Number of Combs		Opportunity Cost of Combs in Terms of Brushes
J	0			4		
K	10	1 ÷ 10 = 0.10		3		10 ÷ 1 = 10
L	17	1 ÷ 7 = 0.14		2		7 ÷ 1 = 7
M	21	1 ÷ 4 = 0.25		1		4 ÷ 1 = 4
N	23	1 ÷ 2 = 0.50		0		2 ÷ 1 = 2

Table 1.3 Answers

114. One World View article is titled "Chronic Food Shortage Shows Despite Efforts by North Korea to Hide It." On a production possibilities curve between private and public goods, a decrease in military spending in an effort to increase food production could be represented as

A. A movement along the production possibilities curve toward more public goods.

B. A movement along the production possibilities curve toward more private goods.

C. A shift outward of the production possibilities curve.

D. A shift inward of the production possibilities curve.

The movement represents resources being pulled from one industry and allocated to the other industry.

115. One World View article is titled "Chronic Food Shortage Shows Despite Efforts by North Korea to Hide It." If North Korea reduces the size of its military and produces more food, this is most consistent with

A. A movement along the economy's production possibilities curve.

B. Privatization.

C. A laissez faire policy.

D. The law of increasing opportunity costs.

Resources are being fully utilized but are being reassigned to a different industry.

116. The Economy Tomorrow on "Harnessing the Sun" states that the percentage of electricity that is generated from burning oil and coal is:

A. Less than 10%.

B. Between 10% and 30%.

C. Between 30% and 50%.

D. Greater than 50%.

It represents a choice of how to allocate our fully employed resources between solar and carbon based energy.

117.
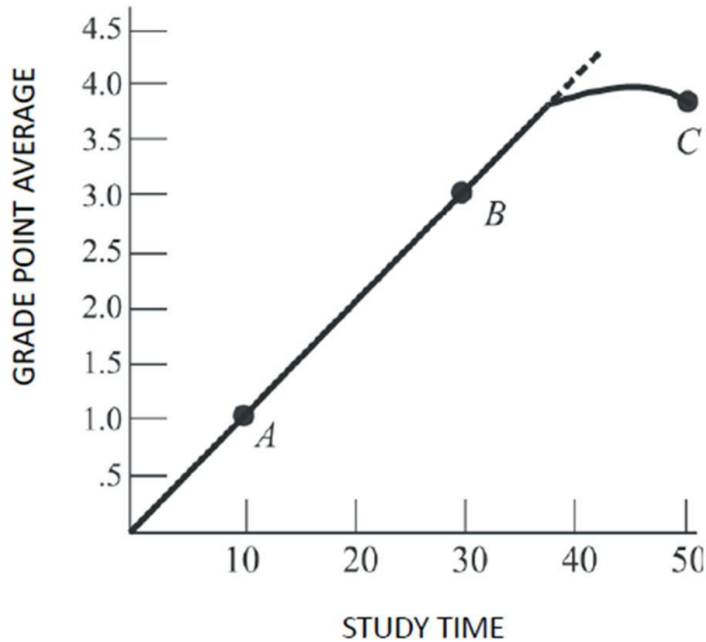
Figure 1.8
Relating Grades and Hours Studied

Figure 1.8 suggests that

A. The law of increasing opportunity cost does not apply.

B. Resources can be perfectly adapted between study time and grade point average.

<u>C.</u> The relationship between study time and grade point average is first linear, then nonlinear.

D. The relationship between study time and grade point average is constant.

The function begins with a constant positive slope, and then it becomes nonconstant.
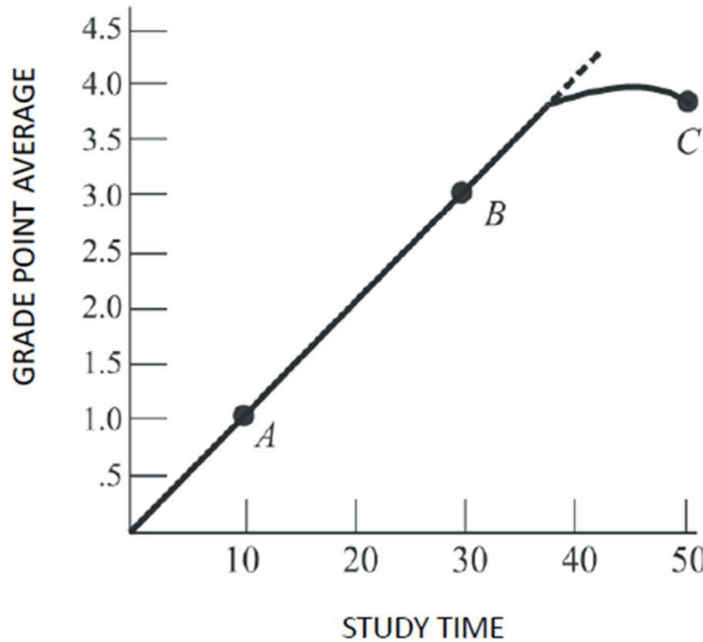
118.

Figure 1.8
Relating Grades and Hours Studied

Refer to Figure 1.8. If the university decides to lower grading standards, then

A. This curve will shift rightward.

B. This curve will pivot up and to the left.

C. The curve will begin to bend downward at an earlier point.

D. We will slide up the curve from point B to point C.

We would expect grades to be higher with less study time required, all else equal.

119.
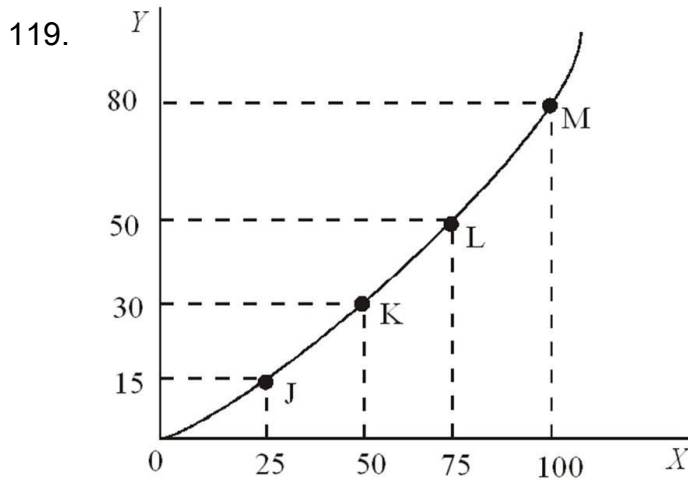
Figure 1.9

In Figure 1.9, as you move up the curve from point J toward point M, the slope

A. Increases.

B. Remains constant.

C. Decreases.

D. Becomes negative.

The curve is getting steeper, so the slope is increasing.

120.
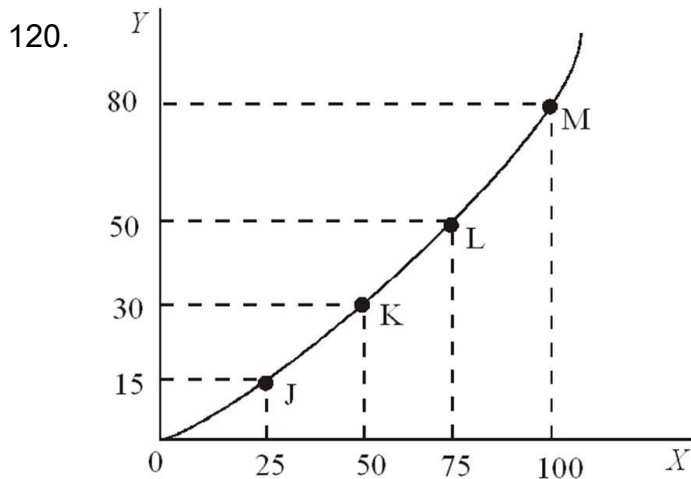
Figure 1.9

In Figure 1.9, the slope of the line between points L and M is

A. 1.20.

B. 0.80.

C. 0.75.

D. 0.67.

The slope is calculated as the change in the vertical variable divided by the change in the horizontal variable (1.20 = 30/25).

121.
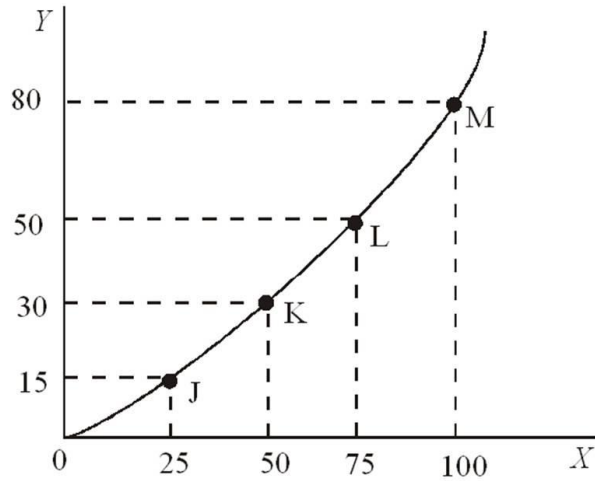
Figure 1.9

In Figure 1.9, the slope of the line between points K and L is

A. 1.25.

B. 0.80.

C. 0.75.

D. 0.60.

The slope is calculated as the change in the vertical variable divided by the change in the horizontal variable (0.80 = 20/25).

122.
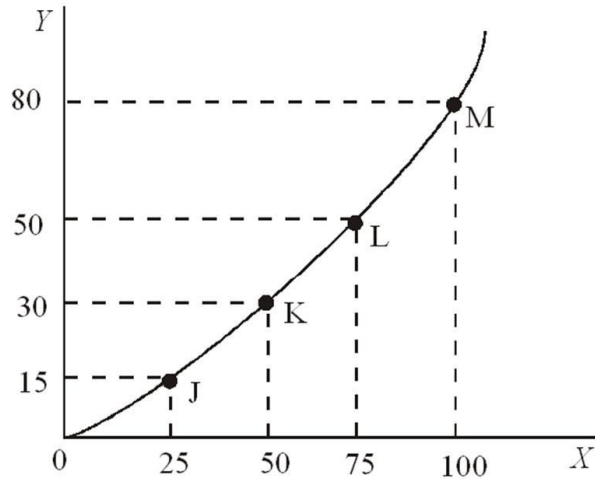
Figure 1.9

In Figure 1.9 the slope of the line is

A. Greater at point K than point L.

B. Equal to zero at all points.

C. The same at points J and K.

D. Greater at point M than point L.

The slope increases as we move from left to right because the curve is getting steeper.

123. The slope of a curve at any point is given by this formula:

   A. The change in y coordinates between two points divided by the change in their x coordinates.

   B. The change in x coordinates between two points divided by the change in their y coordinates.

   C. The percentage change in y coordinates between two points divided by the percentage change in their x coordinates.

   D. The percentage change in x coordinates between two points divided by the percentage change in their y coordinates.

This is the equivalent of rise over run, where the change in y is the rise and the change in x is the run.

124. A line that slopes downward from left to right has a

A. Negative slope.

B. Positive slope.

C. Slope that changes as you move along the curve.

D. Slope of zero.

This is due to the inverse or negative relationship between the two variables.

125. A linear function can be distinguished by

A. The continuous change in its slope.

B. The same slope throughout the line.

C. The changing relationship between the two variables.

D. A shift in the function.

Linear functions have constant slopes while nonlinear functions have nonconstant slopes.

126. When the relationship between two variables changes,

    A. There is movement from one point on the curve to another point on the curve.

    B. The curve becomes linear.

    C. The entire curve shifts.

    D. All of the choices are correct.

    This would be caused by a change in a variable that is not on either axis.

127. The fact that there are too few resources to satisfy all our wants is attributed to

A. Scarcity.

B. Greed.

C. Shortages.

D. Lack of money.

There is always an imbalance in what is desired and what is possible.

128. According to the text, there is no such thing as a free lunch because

A. The producer must charge something to cover the cost of production.

B. Resources used to produce the lunch could be used to produce other goods and services.

C. The government must raise taxes to pay for the lunches.

D. No one would pay for lunch anymore if they could get it for free.

There is always an opportunity cost of an activity because something must be given up to do an activity.

129. In using a guns and butter production possibilities curve with increasing opportunity cost, producing more and more tanks

A. Lowers the cost of each individual tank.

B. Can be done at a constant opportunity cost.

C. Requires us to give up larger and larger amounts of butter per tank produced.

D. Is not possible due to scarcity.

This is because of the law of increasing opportunity cost.

130. Producing at a point inside the production possibilities curve

A. Means society must be using its resources efficiently.

B. Is unattainable given the present level of technology.

C. Is feasible when the nation is at war but not feasible when the nation is at peace.

D. Suggests we are forgoing the ability to produce more of both goods.

This is known as an inefficient point of production.

131. Greater regulation to correct the imbalances in the economy, as well government intervention to maintain full employment, was associated primarily with the work of

A. John Maynard Keynes.

B. Adam Smith.

C. Karl Marx.

D. Ronald Reagan.

This forms the basis of the Keynesian school of economics.

132. The book *Wealth of Nations* was written by

    <u>A.</u> Adam Smith in 1776.

    B. John Maynard Keynes in 1776.

    C. Adam Smith in 1936.

    D. John Maynard Keynes in 1936.

Adam Smith's book from 1776 is considered the cornerstone when one starts a survey of economic thought.

AACSB: Analytic
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 01-01 How scarcity creates opportunity costs.
Topic: WHAT ECONOMICS IS ALL ABOUT

True / False Questions

133. Scarcity results when available resources cannot satisfy all desired uses of those resources.

TRUE

Wants exceed resources.

134. Critics of government regulation argue that government interference in the marketplace stifles the animal spirits of entrepreneurship.

TRUE

Regulation and intervention by the government reduce incentives to produce.

135. Opportunity cost is a theoretical concept with no practical application.

FALSE

Any activity requires that something be given up—an opportunity cost.

136. Every time we use scarce resources in one way, we give up the opportunity to use them in other ways.

TRUE

A cost is always involved in any activity.

137. The production possibilities decrease as more resources and better technology are utilized.

FALSE

More resources and better technology create a greater capacity to produce.

138. All output combinations that lie outside a production possibilities curve are attainable with available resources and technology.

FALSE

Attainable levels of production lie on or inside the production possibilities curve.

139. Output combinations that lie inside the production possibilities curve are characterized by efficient use of resources.

FALSE

Efficient levels of production lie on the production possibilities curve.

140. If the economy is inside the production possibilities curve, then more output can be produced using existing resources.

TRUE

Below the production possibilities curve, resources are not being fully employed, so we can get more production without sacrificing any goods.

141. All economies must make decisions concerning what to produce, how to produce it, and for whom to produce.

TRUE

These are the basic questions of how an economy will be organized.

142. The essential feature of the market mechanism is the price signal.

TRUE

Prices guide buyers and sellers to achieve an optimal allocation of resources.

143. Government failure occurs when government intervention fails to improve economic outcomes or makes them worse.

TRUE

In such a case, the market outcome would be preferred to government intervention.

144. Microeconomics is concerned with individual performance as well as the economy as a whole.

FALSE

Microeconomics looks at the building blocks of any economy: firms, workers, and governments.

145. The Latin phrase *ceteris paribus* refers to holding other variables constant.

TRUE

We must hold many variables constant when we study how one variable affects another.

146. To calculate the slope of a line, find the vertical distance between two points and divide it by the horizontal distance between the same two points.

TRUE

This is the same as rise over run, or change in y divided by change in x.

147. The slope of a production possibilities curve is positive.

<u>FALSE</u>

The production possibilities curve will always be downward-sloping, but it may be constant or nonconstant.

148. When a curve shifts, the underlying relationship between the two variables has changed.

<u>TRUE</u>

A shift in the curve reflects a change in the relationship between the two variables.

Essay Questions

149. Explain why an economist would say, "There is no such thing as a free lunch."

All resources are scarce. Any time a scarce resource is used in one way, the opportunity to use the resource in other ways is given up. The resources used to produce a "free lunch" could have been used to produce other goods or services, so an opportunity cost is incurred.

150. Describe the shape of the typical production possibilities curve and explain why it has this shape.

The typical production possibilities curve bends or bows outward. It has this shape because opportunity costs increase as society produces more of a good. In order to get more of a particular good, increasing quantities of other goods must be given up. This is known as the law of increasing opportunity costs.

151. Why do opportunity costs increase as society produces more of a good?

As society produces more of a good, ever-increasing quantities of other goods and services must be sacrificed or given up. This occurs mostly because there is difficulty experienced in moving resources from one industry to another. The mix of factor inputs also has an impact and may restrict output capabilities.

152. Explain the concept of inefficiency in terms of a production possibilities curve.

A production possibilities curve shows potential output using all available resources efficiently and current technology. If an economy does not use all the available resources efficiently with current technology available to it, then it will produce inside the production possibilities curve. This is referred to as inefficiency.

153. Explain the difference between macroeconomics and microeconomics. Give examples of each.

Macroeconomics focuses on aggregate economic behavior. Full employment, price stability, and economic growth are macroeconomic issues. Microeconomics is concerned with the smaller components that actually contribute to the macroeconomy, such as individuals, particular business firms and industries, and government agencies.

154. How does the market mechanism answer the WHAT, HOW, and FOR WHOM questions?

The market mechanism answers the WHAT question through the indirect interactions of producers and consumers. Market prices and sales signal the desired output. Producers desire to maximize profits and look for the least-cost method of production. This answers the HOW question. The market distributes output to the highest bidder and in doing so answers the FOR WHOM question.

AACSB: Reflective Thinking

Blooms: Understand

Difficulty: 3 Hard

Learning Objective: 01-03 The three core economic questions that every society must answer.

Topic: THE MECHANISMS OF CHOICE