1. A simplified representation that is used to study a real situation is called a(n):
    A)   model.
    B)   production possibility frontier.
    C)   assumption.
    D)   trade-off.

2. The models that economists construct:
    A)   usually make simplifying assumptions.
    B)   often rely on physical constructs, such as those used by architects.
    C)   rarely use mathematical equations or graphs.
    D)   attempt to replicate the real world.

3. When building a model, economists:
    A)   simplify reality to highlight what really matters.
    B)   attempt to duplicate reality in all of its complexity.
    C)   ignore the facts and instead try to determine what the facts should be.
    D)   are careful to avoid the scientific method.

4. The models used in economics:
    A)   are always limited to variables that are directly related.
    B)   are essentially not reliable because they are not testable in the real world.
    C)   are of necessity unrealistic and not related to the real world.
    D)   emphasize basic relationships by abstracting from complexities in the everyday world.

5. Economic models are:
    A)   set up and used to duplicate reality.
    B)   useless if they are simple.
    C)   made generally of wood, plastic, and/or metal.
    D)   often useful in forming economic policy.

6. The importance of an economic model is that it allows us to:
    A)   build a complex and accurate model of the economy.
    B)   build an accurate mathematical model of the economy.
    C)   focus on the effects of only one change at a time.
    D)   avoid opportunity costs.

7. In constructing a model, economists:
   A) might use a computer simulation.
   B) avoid making any assumptions.
   C) assume that all relevant factors are constantly changing.
   D) are prohibited from using mathematics.

8. A simplified version of reality that is used to clarify economic situations is called a(n):
   A) economic fact.
   B) current event.
   C) model.
   D) scarce resource.

9. An economic model:
   A) is useful for explaining past economic conditions but not for predicting.
   B) often leads to faulty conclusions because of the *ceteris paribus* assumption.
   C) allows nothing to change in the economic situation that is being described.
   D) is a simplified version of reality used to understand real-world economic conditions.

10. The financial meltdown of 2008–2009:
    A) was accurately predicted by an economic model.
    B) was due to excessive investment in Internet companies.
    C) was the result of the breakup of the European Union.
    D) resulted partially from a faulty economic model.

11. Wall Street is:
    A) a district in New York City where all major investment companies have their headquarters.
    B) a district in New York City where most fashion designers have their headquarters.
    C) an area of San Francisco where imports are received from other countries and from which exports are shipped.
    D) a street in Houston, Texas, where major oil companies have their headquarters.

12. A mortgage-backed security is an asset that:
    A) only homeowners are allowed to purchase.
    B) provides earnings to its owner based on payments made by people on their home loans.
    C) the Federal Reserve uses to implement monetary policy.
    D) is an important part of the circular-flow diagram.

13. Before 2000, investors were reluctant to buy mortgage-backed securities because:
    A) economic models predicted that they were bad investments.
    B) they were illegal in many states.
    C) they could not calculate the risk of losing money on mortgage-backed securities.
    D) it was difficult to obtain the foreign currencies that were required for purchasing them.

14. Investors will lose money on mortgage-backed securities if:
    A) interest rates are too low.
    B) homeowners don't pay their mortgages.
    C) homeowners pay off their mortgages early.
    D) the average price of a house increases too rapidly.

15. In 2000, financial experts announced that they:
    A) would no longer be willing to buy or sell mortgage-backed securities.
    B) were unable to predict expected income from mortgage-backed securities.
    C) had overestimated the risk of loss from mortgage-backed securities.
    D) had developed a model that could predict the risk of losing money on mortgage-backed securities.

16. In 2000, the market for mortgage-backed securities:
    A) grew rapidly because economists had developed a model that seemed capable of predicting the risk associated with owning mortgage-backed securities.
    B) closed down because Congress outlawed mortgage-backed securities.
    C) took tremendous losses because the price of energy reached record highs.
    D) was developed only in Europe.

17. The production possibility frontier illustrates that:
    A) the economy will automatically end up at full employment.
    B) an economy's productive capacity increases one-for-one with its population.
    C) if all resources of an economy are being used efficiently, more of one good can be produced only if less of another good is produced.
    D) economic production possibilities have no limit.


Use the following to answer questions 18-20:

Table: Production Possibilities Schedule I

Alternatives	A	B	C	D	E	F
Consumer goods per period	0	1	2	3	4	5
Capital goods per period	30	28	24	18	10	0

18. (Table: Production Possibilities Schedule I) Look at the table Production Possibilities Schedule I. If the economy produces two units of consumer goods per period, it also can produce at most _____ units of capital goods per period.
    A) 30
    B) 28
    C) 24
    D) 18

19. (Table: Production Possibilities Schedule I) Look at the table Production Possibilities Schedule I. If the economy produces 10 units of capital goods per period, it also can produce at most _____ units of consumer goods per period.
    A) 5
    B) 4
    C) 3
    D) 2

20. (Table: Production Possibilities Schedule I) Look at the table Production Possibilities Schedule I. The opportunity cost of producing the fourth unit of consumer goods is _____ units of capital goods.
    A) 2
    B) 4
    C) 6
    D) 8

Use the following to answer questions 21-25:

Figure: Guns and Butter
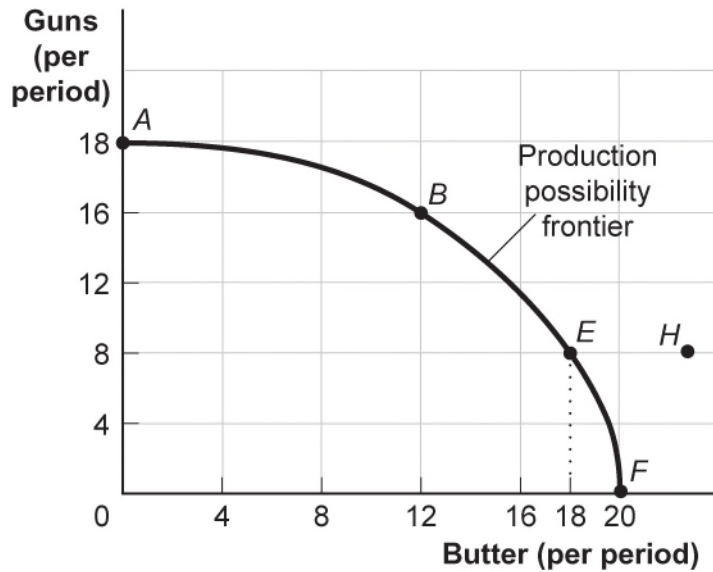
21. (Figure: Guns and Butter) Look at the figure Guns and Butter. On this figure, points *A, B, E,* and *F:*
    A) indicate combinations of guns and butter that society can produce using all of its factors efficiently.
    B) indicate increasing opportunity costs for guns but decreasing opportunity costs for butter.
    C) indicate that society wants butter more than it wants guns.
    D) indicate constant opportunity costs for guns and increasing costs for butter.

22. (Figure: Guns and Butter) Look at the figure Guns and Butter. This production possibility frontier is:
    A) bowed out because of increasing opportunity costs.
    B) bowed in because of increasing opportunity costs.
    C) bowed in because of constant costs of guns and butter.
    D) linear because of constant costs.

23. (Figure: Guns and Butter) Look at the figure Guns and Butter. If the economy is operating at point *B,* producing 16 guns and 12 pounds of butter per period, a decision to move to point *E* and produce 18 pounds of butter:
    A) indicates that you can have more butter and guns simultaneously.
    B) makes it clear that this economy has decreasing opportunity costs.
    C) necessitates a loss of eight guns per period.
    D) necessitates a loss of four guns per period.

24. (Figure: Guns and Butter) Look at the figure Guns and Butter. The combination of guns and butter at point *H:*
    A) can be attained but would cost too much.
    B) cannot be attained, given the level of technology and the factors of production available.
    C) has no meaning, since it does not relate to the preferences of consumers.
    D) is attainable but would increase unemployment.

25. (Figure: Guns and Butter) Look at the figure Guns and Butter. Suppose the economy produced 8 guns and 12 pounds of butter per period.
    A) This is a possible choice but is inefficient.
    B) This combination invalidates the notion of increasing opportunity cost.
    C) The economy is still efficient but does not buy as much as it could.
    D) Something must be done to reduce the amount of employment.

26. If an economy has to sacrifice only one unit of good *X* for each unit of good *Y* produced throughout the relevant range, then its production possibility frontier has:
    A) a zero slope.
    B) a constant negative slope.
    C) an increasing negative slope.
    D) a decreasing negative slope.

27. A production possibility frontier that is a straight line sloping down from left to right suggests that:
    A) more of both goods could be produced moving along the frontier.
    B) the two products must have the same price.
    C) the opportunity costs of the products are constant.
    D) there are no opportunity costs.

Use the following to answer questions 28-30:

**Table: Production Possibilities Schedule II**

Production alternatives	V	W	X	Y	Z
Capital goods per period	0	1	2	3	4
Consumer goods per period	20	18	14	8	0

28. (Table: Production Possibilities Schedule II) Look at the table Production Possibilities Schedule II. If the economy is producing at alternative X, the opportunity cost of producing at Y instead of X is _____ units of consumer goods per period.
    A) 0
    B) 6
    C) 8
    D) 14

29. (Table: Production Possibilities Schedule II) Look at the table Production Possibilities Schedule II. If an economy is producing at alternative W, the opportunity cost of producing at X is _____ unit(s) of consumer goods per period.
    A) 0
    B) 1
    C) 4
    D) 18

30. (Table: Production Possibilities Schedule II) Look at the table Production Possibilities Schedule II. The production of 14 units of consumer goods and 1 unit of capital goods per period would result in:
    A) full employment.
    B) no unused resources.
    C) some unused or inefficiently used resources.
    D) an increase in economic growth.

31. In movement along a production possibility frontier, the opportunity cost to society of getting more of one good:
    A) is always constant.
    B) is measured in dollar terms.
    C) is measured by the amount of the other good that must be given up.
    D) usually decreases.

32. If an economy has to sacrifice increasing amounts of good *X* for each additional unit of good *Y* produced, then its production possibility frontier is:
   A) bowed out.
   B) bowed in.
   C) a straight line.
   D) a vertical line.

33. The fact that a society's production possibility frontier is bowed out, or concave to the origin of a graph, demonstrates the law of _____ opportunity cost.
   A) increasing
   B) decreasing
   C) constant
   D) concave

34. The economy's factors of production are not equally suitable for producing different types of goods. This principle generates:
   A) economic growth.
   B) technical efficiency.
   C) underuse of resources.
   D) the law of increasing opportunity cost.

Use the following to answer questions 35-37:

Figure: Strawberries and Submarines
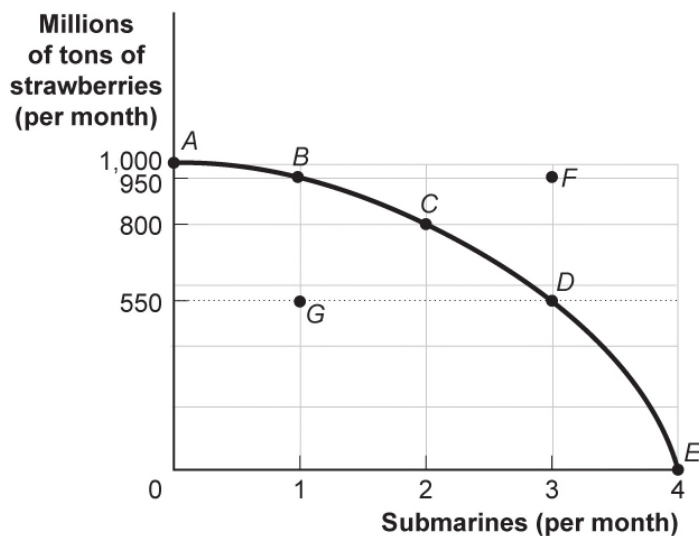
35. (Figure: Strawberries and Submarines) Look at the figure Strawberries and Submarines. Suppose the economy is operating at point *G.* This implies that:
    A) the economy can move to a point such as *C* only if it improves its technology.
    B) the economy has unemployment and/or inefficiently allocates resources.
    C) the economy lacks the resources to achieve a combination such as *C.*
    D) people in this economy don't really like strawberries or submarines.

36. (Figure: Strawberries and Submarines) Look at the figure Strawberries and Submarines. As the economy moves from point *A* toward point *D,* it will find that the opportunity cost of each additional submarine:
    A) falls.
    B) rises.
    C) remains unchanged.
    D) doubles.

37. (Figure: Strawberries and Submarines) Look at the figure Strawberries and Submarines. Suppose the economy now operates at point *C.* Moving to point *E* would require that the economy:
    A) achieve full employment and an efficient allocation of resources.
    B) eliminate its production of strawberries.
    C) reduce its production of submarines.
    D) improve its technology or increase its quantities of factors of production.

38. If an economy is producing a level of output that is on its production possibility frontier, the economy has:
    A) idle resources.
    B) idle resources but is using resources efficiently.
    C) no idle resources but is using resources inefficiently.
    D) no idle resources and is using resources efficiently.

Use the following to answer questions 39-40:

Figure: Consumer and Capital Goods
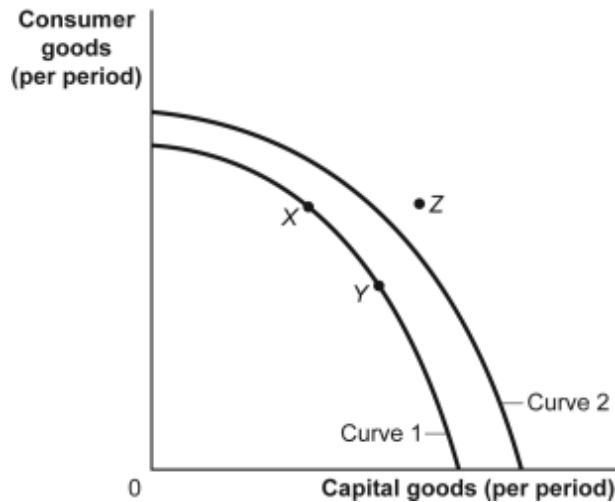
39. (Figure: Consumer and Capital Goods) Look at the figure Consumer and Capital Goods. The movement from curve 1 to curve 2 indicates:
    A) economic growth.
    B) a change from unemployment to full employment.
    C) a decrease in the level of technology.
    D) instability.

40. (Figure: Consumer and Capital Goods) Look at the figure Consumer and Capital Goods. Point Z:
    A) is unattainable, all other things unchanged.
    B) is attainable if the economy is able to reach full employment.
    C) is attainable if the quantity and/or quality of factors decreases.
    D) will be attained as soon as the economy becomes efficient and moves to curve 2.

41. Technological improvements will:
    A) leave the production possibility frontier unchanged.
    B) shift the production possibility frontier inward.
    C) shift the production possibility frontier outward.
    D) necessarily lead to increased unemployment.

42. A production possibility frontier illustrates the _____ facing an economy that _____ only two goods.
    A) prices; sells
    B) trade-offs; produces
    C) trade-offs; sells
    D) shortages; produces

43. Suppose Oklahoma decides to produce only two goods, oil and football helmets. If Oklahoma is producing on its production possibility frontier, as oil production increases, the production of football helmets will:
    A) increase.
    B) not change.
    C) decrease at a decreasing rate.
    D) decrease.

44. One of the controversies surrounding the United States' energy markets is the trade-off between energy production and clean air. Assuming clean air has value, the United States will be on its production possibility frontier if and only if:
    A) resources used to produce clean air and energy are not being fully used.
    B) pollution is eliminated.
    C) the price of energy is relatively low.
    D) resources used to produce clean air and energy are being fully used.

45. If an economy is producing at a point on its production possibilities frontier, it is:
    A) efficient in production and allocation.
    B) efficient in production but not necessarily in allocation.
    C) efficient in allocation but not necessarily in production.
    D) not necessarily efficient in production or allocation.

46. Consider a production possibility frontier for Iraq. If in 2014 Iraq's resources are not being fully utilized, Iraq will be somewhere _____ of its production possibility frontier.
    A) inside
    B) outside
    C) near the bottom
    D) near the top

47. All points inside the production possibility frontier represent:
    A) efficient production points.
    B) inefficient production points.
    C) infeasible production points.
    D) economic growth.

48. All points on the production possibility frontier are:
    A) efficient.
    B) inefficient.
    C) infeasible.
    D) economic growth.

49. All points outside the production possibility frontier are:
    A) efficient.
    B) inefficient.
    C) infeasible.
    D) economic growth.

Use the following to answer questions 50-52:

Figure: Production Possibility Frontier Curve for Tealand
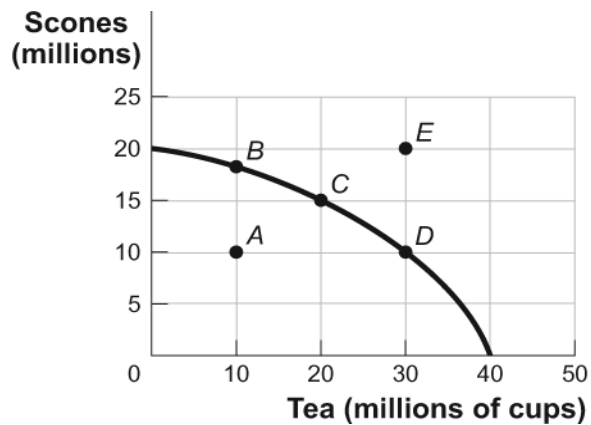
50. (Figure: Production Possibility Frontier for Tealand) Look at the figure Production Possibility Frontier for Tealand. If Tealand is producing 10 million scones and 10 million cups of tea (point A), we know that the economy:
    A) is using its resources efficiently.
    B) is using its resources inefficiently.
    C) is fully employing its resources.
   D) has found new resources.

51. (Figure: Production Possibility Frontier for Tealand) Look at the figure Production Possibility Frontier for Tealand. Tealand is producing at point *C* on its production possibility frontier. What is the opportunity cost of increasing the production of tea from 20 million cups to 30 million cups?
   A) 10 million cups of tea
   B) 5 million scones
   C) 10 million scones
   D) The answer is impossible to determine from the information given.

52. (Figure: Production Possibility Frontier for Tealand) Look at the figure Production Possibility Frontier for Tealand. Tealand can produce at point *E* only if the government:
   A) eliminates unemployment.
   B) raises taxes.
   C) permits more immigration.
   D) increases the cost of production by decreasing the use of technology.

53. The production possibility frontier is bowed out because:
   A) resources are not equally suited for the production of both goods.
   B) resources are scarce.
   C) economic growth leads to inefficiency.
   D) resources are inefficiently used.

54. The opportunity cost of production:
   A) is the price of a good.
   B) is what you give up to produce the good.
   C) decreases as production increases.
   D) is what you gain by producing the good.

55. Suppose Poland is producing on its production possibilities frontier, and it decides to increase the production of steel and decrease the production of vodka. The bowed-out production possibility frontier suggests that there will be a(n) _____ opportunity cost of producing more steel.
   A) increasing
   B) decreasing
   C) nonexistent
   D) unchanged

56. Economists usually assume that production is subject to increasing opportunity costs because:
    A) higher production usually results in more inflation.
    B) not all resources are equally suited to producing every good.
    C) individuals desire constantly increasing opportunities to make themselves better off.
    D) if production is efficient, it is not possible to increase the production of all goods simultaneously.

57. The production possibility frontier will shift outward because of:
    A) a decrease in the labor force.
    B) an upgrade of capital to the best available technology.
    C) better technology that improves worker productivity.
    D) a decrease in the unemployment rate.

58. In terms of the production possibility frontier, inefficient use of available resources is shown by:
    A) an increase in the labor force growth rate.
    B) a movement from one point to another along the production possibility frontier.
    C) an inward shift of the production possibility frontier due to the lack of opportunity.
    D) production at a point inside the production possibility frontier.

59. The production possibility frontier will shift outward for all of the following reasons EXCEPT:
    A) an increase in the unemployment rate.
    B) an increase in the labor force.
    C) an improvement in technology.
    D) an increase in worker productivity.

60. The effect of an increase in productive inputs such as labor and capital can be shown by:
    A) a point inside of the production possibility frontier.
    B) an outward shift of the production possibility frontier.
    C) a movement from one point to another along the production possibility frontier.
    D) an inward shift of the production possibility frontier.

61. The effect of a natural disaster can be shown by _____ the production possibility frontier.
    A) a point inside of
    B) an outward shift of
    C) a movement from one point to another along
    D) an inward shift of

62. An inward shift in the U.S. economy's production possibility frontier could represent U.S.:
    A) workers moving to Canada.
    B) workers moving from New Jersey to Massachusetts.
    C) economic growth.
    D) economic growth as workers move to different states.

63. If the production possibility frontier is a straight line:
    A) opportunity costs are constant.
    B) the firm faces increasing costs.
    C) the firm faces decreasing costs.
    D) there is no trade-off between the two goods represented.

Use the following to answer questions 64-70:

Figure: Tom's Production Possibilities
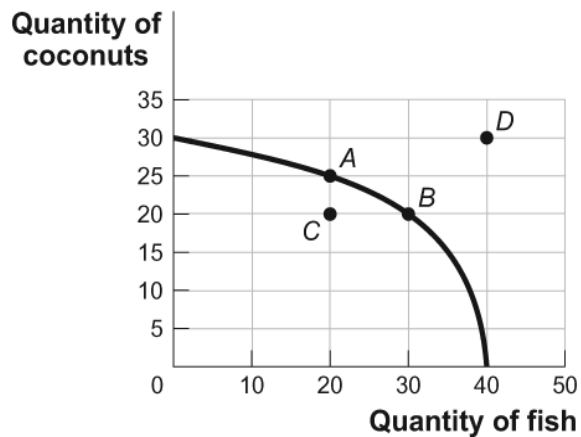
64. (Figure: Tom's Production Possibilities) Look at the figure Tom's Production Possibilities. Which point or points represent(s) a combination of coconuts and fish that is efficient in production?
A) *A* only
B) *A* and *B*
C) *B* and *C*
D) *D* only

65. (Figure: Tom's Production Possibilities) Look at the figure Tom's Production Possibilities. Which point or points represent(s) an inefficient combination of coconuts and fish?
A) *A* only
B) *A* and *B*
C) *C* only
D) *B* and *D*

66. (Figure: Tom's Production Possibilities) Look at the figure Tom's Production Possibilities. Which point or points represent(s) an infeasible combination of coconuts and fish?
A) *A* only
B) *A* and *B*
C) *B* and *C*
D) *D* only

67. (Figure: Tom's Production Possibilities) Look at the figure Tom's Production Possibilities. Which point or points represent(s) a feasible combination of coconuts and fish?
A) *A* only
B) *A* and *B*
C) *A, B,* and *C*
D) *D* only

68. (Figure: Tom's Production Possibilities) Look at the figure Tom's Production Possibilities. The opportunity cost for Tom to move from point *A* on the curve to point *B* is:
A) 10 coconuts.
B) 10 fish.
C) 5 coconuts.
D) 5 fish.

69. (Figure: Tom's Production Possibilities) Look at the figure Tom's Production Possibilities. The opportunity cost for Tom to move from point *B* on the curve to point *A* is:
   A) 10 coconuts.
   B) 10 fish.
   C) 5 coconuts.
   D) 5 fish.

70. (Figure: Tom's Production Possibilities) Look at the figure Tom's Production Possibilities. The opportunity cost for Tom to move from point *C* on the curve to point *A* is:
   A) 10 coconuts.
   B) 30 fish.
   C) 5 coconuts.
   D) There is no opportunity cost.

71. The _____ illustrates the trade-offs facing an economy that produces only two goods.
   A) production possibility frontier
   B) circular-flow diagram
   C) all else equal assumption
   D) income distribution

Use the following to answer questions 72-74:

Table: Trade-off of Study Time and Leisure Time

Quantity of Hours of Study Time	Quantity of Hours of Leisure Time
16	0
12	4
8	8
4	12
0	16

72. (Table: Trade-off of Study Time and Leisure Time) Look at the table Trade-off of Study Time and Leisure Time. A student sleeps 8 hours per day and divides the remaining time between study time and leisure time. The table shows the combinations of study and leisure time that can be produced in the 16 waking hours of each day. If a student decides to consume one additional hour of leisure time, how many hours of study time must she give up?
    A) 4
    B) 0.25
    C) 1
    D) 16

73. (Table: Trade-off of Study Time and Leisure Time) Look at the table Trade-off of Study Time and Leisure Time. A student sleeps 8 hours per day and divides the remaining time between study and leisure time. Suppose this student is studying 4 hours and spending 10 hours doing leisure activities. This point is:
    A) outside the production possibility frontier.
    B) inside the production possibility frontier.
    C) on the production possibility frontier.
    D) both efficient and feasible.

74. (Table: Trade-off of Study Time and Leisure Time) Look at the table Trade-off of Study Time and Leisure Time. A student sleeps 8 hours per day and divides the remaining time between study time and leisure time. The table shows the combinations of study and leisure time that can be produced in the 16 waking hours of each day. Suppose the student completes a speed-reading course that allows him to do the same amount of studying in half as many hours. His opportunity cost:
    A) of leisure has increased.
    B) of studying has increased.
    C) of leisure has decreased.
    D) has not changed.

75. If a production possibility frontier is a straight line, it tells us that the opportunity cost of producing one more unit of good X:
    A) is an increasing amount of good Y.
    B) is a decreasing amount of good Y.
    C) is equal to the inverse of the amount of good Y.
    D) is a constant amount of good Y.

76. Suppose Indiana produces only steel and corn, with fixed amounts of land, labor, and capital resources. Which of the following best sets the stage for economic growth?
A) The unemployment rate in Indiana rises from 5% to 6%.
B) The Midwest has a devastating drought.
C) The percentage of Indiana residents with a college degree rises from 25% to 30%.
D) The United States imports more and more low-cost steel from Asian countries.

77. The production possibility frontier illustrates:
A) the maximum quantity of one good that can be produced given the quantity of the other good produced.
B) that when markets don't achieve efficiency, government intervention can improve society's welfare.
C) the inverse relation between price and quantity of a particular good.
D) that people usually exploit opportunities to make themselves better off.

Use the following to answer questions 78-83:

Figure: Wine and Wheat
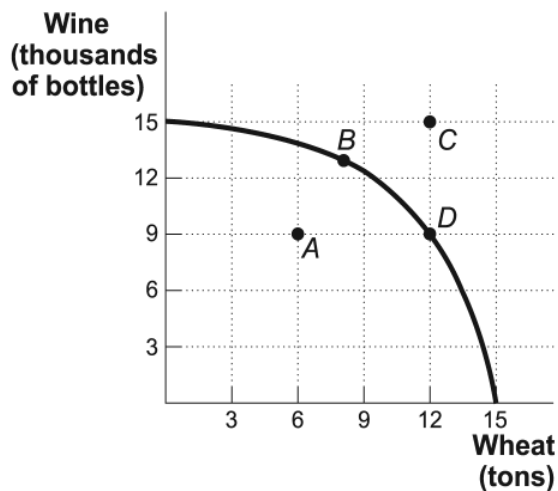
78. (Figure: Wine and Wheat) Look at the figure Wine and Wheat. If this economy is producing 12 tons of wheat and 9,000 bottles of wine, we know the economy:
A) is using its resources efficiently.
B) is using its resources inefficiently.
C) is producing at an unattainable point.
D) has unemployment.

79. (Figure: Wine and Wheat) Look at the figure Wine and Wheat. If this economy is producing at point *A*, we know the economy is:
    A) using its resources efficiently.
    B) using its resources inefficiently.
    C) producing at an unattainable point.
    D) trading with another country.

80. (Figure: Wine and Wheat) Look at the figure Wine and Wheat. If this economy is producing at point *A* and wants to produce at point *B*, it must:
    A) trade with another country.
    B) increase its resources.
    C) decrease production.
    D) use its existing resources efficiently.

81. (Figure: Wine and Wheat) Look at the figure Wine and Wheat. The opportunity cost of moving from producing ONLY wheat to producing ONLY wine is _____ tons of wheat.
    A) 3
    B) 6
    C) 9
    D) 15

82. (Figure: Wine and Wheat) Look at the figure Wine and Wheat. The opportunity cost of moving from producing ONLY wheat to producing at point *D* is _____ tons of wheat.
    A) 3
    B) 6
    C) 9
    D) 15

83. (Figure: Wine and Wheat) Look at the figure Wine and Wheat. If this economy is producing on the production possibility frontier, what would allow it to produce at point *C*?
    A) an improvement in technology
    B) a decrease in resources
    C) a decrease in production
    D) elimination of unemployment

84. The U.S. production possibility frontier would _____ if all computers using Microsoft operating systems contracted a virus that deleted all information on those computers.
A) shift in
B) shift out
C) not change
D) The answer cannot be determined from the information provided.

85. The U.S. production possibility frontier will _____ if there is a large influx of working-age immigrants.
A) shift in
B) shift out
C) not change
D) The answer cannot be determined from the information provided.

86. In Kessy's old kitchen, he could bake 10 cookies or mix 15 glasses of lemonade in one day. Now Kessy has a larger oven and refrigerator. How does this affect his production possibility frontier?
A) It shifts his production possibility frontier out.
B) It shifts his production possibility frontier in.
C) He will be less efficient.
D) He will not be able to produce as much as before.

Use the following to answer questions 87-89:

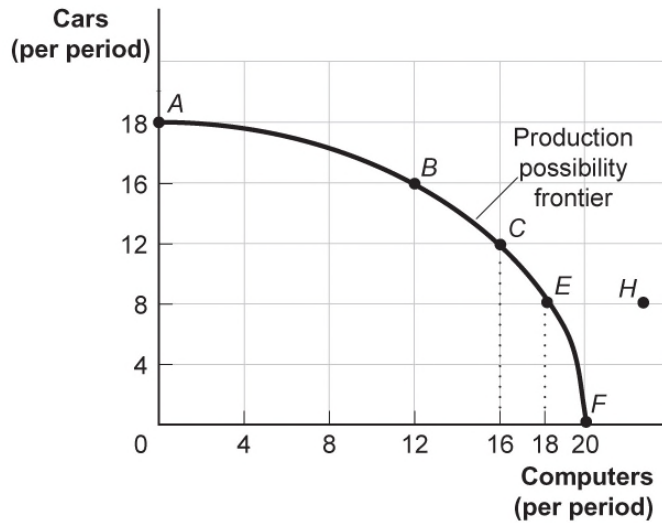**Table: Production Possibilities Schedule I**

Alternatives	A	B	C	D	E	F
Consumer goods per period	0	1	2	3	4	5
Capital goods per period	30	28	24	18	10	0

87. (Table: Production Possibilities Schedule I) Look at the table Production Possibilities Schedule I. If the economy produces 4 units of consumer goods per period, it also can produce at most _____ units of capital goods per period.
A) 30
B) 28
C) 10
D) 18

88. (Table: Production Possibilities Schedule I) Look at the table Production Possibilities Schedule I. If the economy produces 24 units of capital goods per period, it also can produce at most _____ units of consumer goods per period.
    A) 5
    B) 4
    C) 3
    D) 2

89. (Table: Production Possibilities Schedule I) Look at the table Production Possibilities Schedule I. The opportunity cost of producing the third unit of consumer goods is _____ units of capital goods.
    A) two
    B) four
    C) six
    D) eight

Use the following to answer questions 90-96:

Figure: Production Possibility Frontier

90. (Figure: Production Possibility Frontier) Look at the figure Production Possibilities Frontier. Points *A, B, E,* and *F:*
    A) indicate combinations of cars and computers that society can produce using all of its resources efficiently.
    B) show that the opportunity cost of cars increases as more cars are produced but that of more computers decreases as more computers are produced.
    C) indicate that society wants computers more than cars.
    D) indicate constant opportunity costs for cars and increasing opportunity costs for computers.

91. (Figure: Production Possibility Frontier) Look at the figure Production Possibilities Frontier. This production possibility frontier is:
    A) bowed out because of increasing opportunity costs.
    B) bowed in because of increasing opportunity costs.
    C) bowed in because of constant cost of cars and computers.
    D) linear because of constant costs.

92. (Figure: Production Possibility Frontier) Look at the figure Production Possibilities Frontier. If the economy is operating at point *B,* producing 16 cars and 12 computers per period, a decision to move to point *E* and produce 18 computers:
    A) indicates that you can have more computers and more cars simultaneously.
    B) makes it clear that this economy has decreasing opportunity costs.
    C) entails a loss of 8 cars per period.
    D) entails a loss of 4 cars per period.

93. (Figure: Production Possibility Frontier) Look at the figure Production Possibilities Frontier. The combination of cars and computers at point *H:*
    A) can be attained but would cost too much.
    B) cannot be attained given the level of technology and the resources available.
    C) has no meaning, since it is not what consumers want.
    D) is attainable but would increase unemployment.

94. (Figure: Production Possibility Frontier) Look at the figure Production Possibilities Frontier. If the economy is producing 8 cars and 12 computers per period:
    A) unemployment or inefficiency will ensue.
    B) the notion of increasing opportunity cost is invalidated.
    C) the economy is still efficient but has made a decision not to buy as much as it could.
    D) something must be done to reduce the amount of employment.

95. (Figure: Production Possibility Frontier) Look at the figure Production Possibilities Frontier. A movement from point *C* producing 12 cars and 16 computers per period to point *B* means a _____ of _____ cars and a _____ of _____ computers per period.
   A) gain; 4; loss; 4
   B) gain; 2; loss; 4
   C) gain; 4; loss; 6
   D) loss; 2; gain; 4

96. (Figure: Production Possibility Frontier) Look at the figure Production Possibilities Frontier. Which of the following is NOT an efficient rate of production per period?
   A) 18 cars and no computers
   B) no cars and 20 computers
   C) 16 cars and 12 computers
   D) no cars and 18 computers

97. If farmer Sam MacDonald can produce 200 pounds of cabbages and no potatoes or no cabbages and 100 pounds of potatoes and if he faces a linear production possibility frontier, the opportunity cost of producing an additional pound of potatoes is _____ pound(s) of cabbage.
   A) 0.5
   B) 2
   C) 100
   D) 200

98. If farmer Sam MacDonald can produce 200 pounds of cabbages and no potatoes or no cabbages and 100 pounds of potatoes and if he faces a linear production possibility frontier, the opportunity cost of producing an additional pound of cabbage is _____ pound(s) of potatoes.
   A) 0.5
   B) 2
   C) 100
   D) 200

99. The slope of a typical production possibility frontier is:
   A) 0.
   B) vertical.
   C) positive.
   D) negative.

Use the following to answer questions 100-102:

Table: Production Possibilities Schedule II

Production alternatives	V	W	X	Y	Z
Capital goods per period	0	1	2	3	4
Consumer goods per period	20	18	14	8	0

100. (Table: Production Possibilities Schedule II) Look at the table Production Possibilities Schedule II. If the economy is producing at *Y,* the opportunity cost of producing at *Z* is _____ units of consumer goods per period.
    A) 1
    B) 6
    C) 8
    D) 14

101. (Table: Production Possibilities Schedule II) Look at the table Production Possibilities Schedule II. If an economy is producing at *X,* the opportunity cost to it of producing at *Y* is _____ units of consumer goods per period.
    A) 2
    B) 1
    C) 6
    D) 18

102. (Table: Production Possibilities Schedule II) Look at the table Production Possibilities Schedule II. The production of eight units of consumer goods and two units of capital goods per period would result in:
    A) full employment.
    B) no unused resources.
    C) some unused or inefficiently used resources.
    D) increased economic growth.

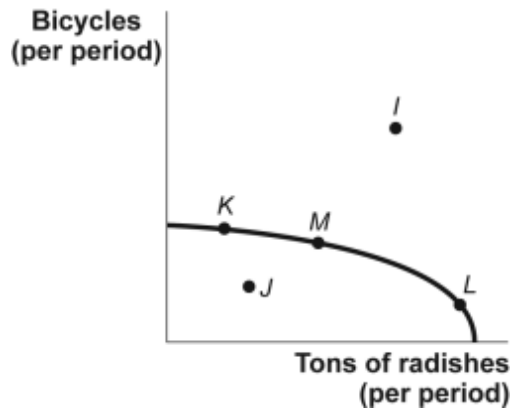Use the following to answer questions 103-104:

Figure: Bicycles and Radishes I
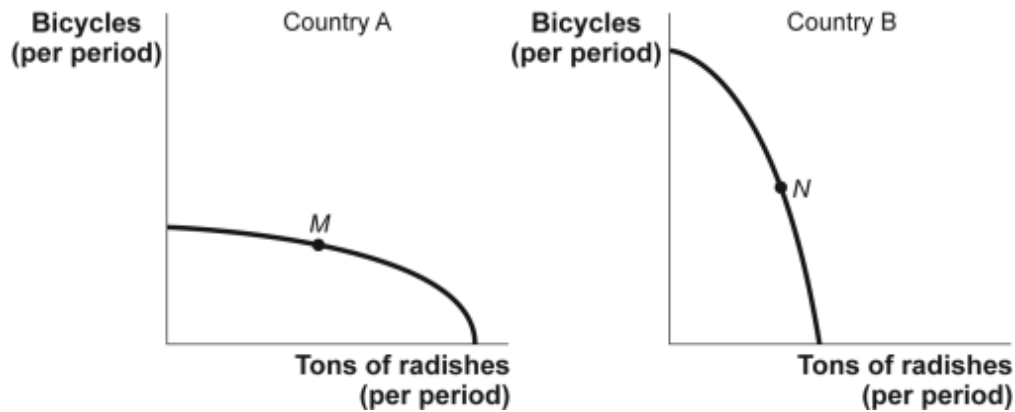
103. (Figure: Bicycles and Radishes I) Look at The figure Bicycles and Radishes I. It shows the production possibility frontiers for two countries that produce only radishes and bicycles. The axes of the two graphs are measured in equivalent units. Country A is operating at point *M*, and country B is operating at point *N*. The opportunity cost of producing an additional ton of radishes would be greater in:
    A)   country A.
    B)   country B.
    C)   neither; the opportunity cost would be the same in both countries.
    D)   There is not enough information to answer the question.

104. (Figure: Bicycles and Radishes I) Look at the figure Bicycles and Radishes I. It shows production possibility frontiers for two countries that produce only radishes and bicycles. The axes of the two graphs are measured in equivalent units. Country A is operating at point *M*, and country B is operating at point *N*. Suppose country A discovers a new technology that greatly increases its ability to produce bicycles but has no effect on its ability to produce radishes. This would:
    A)   lower the opportunity cost of producing radishes in country A.
    B)   increase the opportunity cost of producing radishes in country A.
    C)   not affect the opportunity cost of producing radishes in country A.
    D)   increase the opportunity cost of producing radishes in country B.

Use the following to answer question 105:

Figure: Bicycles and Radishes II

105. (Figure: Bicycles and Radishes II) Look at the figure Bicycles and Radishes II. The country depicted in this figure is operating at point *M*. It could achieve production at point *I* only if it:
    A)   used its resources more efficiently.
    B)   devoted more resources to radish production.
    C)   devoted more resources to bicycle production.
    D)   increased the quantities of capital, natural resources, or labor available or improved its technology.

Use the following to answer questions 106-107:

Figure: Sugar and Freight Trains
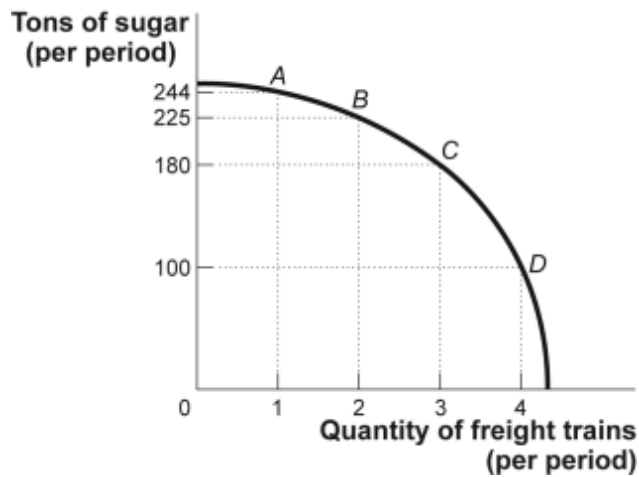
106. (Figure: Sugar and Freight Trains) Look at the figure Sugar and Freight Trains. Suppose the economy is operating at point *B*. The opportunity cost of producing the third freight train would be _____ tons of sugar.
   A)   6
   B)   19
   C)   45
   D)   80

107. (Figure: Sugar and Freight Trains) Look at the figure Sugar and Freight Trains. Suppose the economy is operating at point *C*. The opportunity cost of producing the fourth freight train would be:
   A)   19 tons of sugar.
   B)   45 tons of sugar.
   C)   80 tons of sugar.
   D)   3 freight trains.

Use the following to answer questions 108-112:

Figure: Strawberries and Submarines II
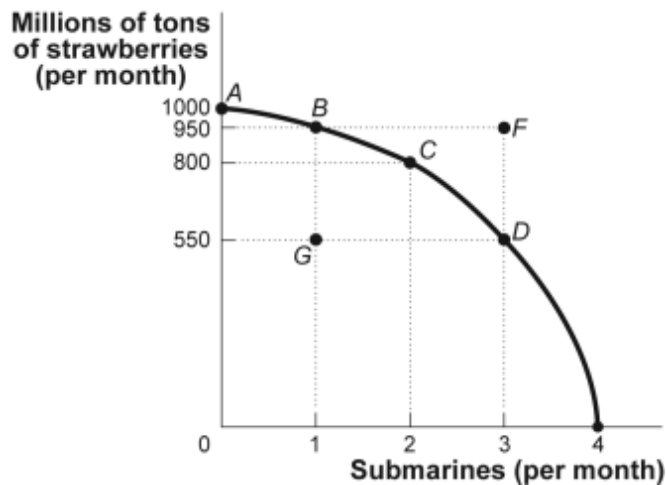
108. (Figure: Strawberries and Submarines II) Look at the figure Strawberries and Submarines II. Point *F:*
   A)   is unattainable, all other things unchanged.
   B)   is attainable if the quantity and/or quality of factors decreases.
   C)   is attainable if the economy is able to reach full employment.
   D)   is feasible but not efficient.

109. (Figure: Strawberries and Submarines II) Look at the figure Strawberries and Submarines II. Suppose the economy is operating at point *A*. The first submarine, which is achieved at point *B*, would have an opportunity cost of _____ million tons of strawberries.
    A) 50
    B) 150
    C) 400
    D) 950

110. (Figure: Strawberries and Submarines II) Look at the figure Strawberries and Submarines II. Assume that the economy is operating at point *A*. The opportunity cost of moving to point *C* is equal to _____ million tons of strawberries:
    A) 800
    B) 200
    C) 2
    D) 50

111. (Figure: Strawberries and Submarines II) Look at the figure Strawberries and Submarines II. The downward slope of the production possibility frontier implies that resources:
    A) must be used efficiently.
    B) are scarce.
    C) should not be wasted.
    D) should be allocated so that approximately equal amounts of both goods are produced.

112. (Figure: Strawberries and Submarines II) Look at the figure Strawberries and Submarines II. Suppose the economy is operating at point *B*. Achieving production at point *F* would require that the economy:
    A) achieve full employment and an efficient allocation of resources.
    B) reduce its production of strawberries.
    C) reduce its production of submarines.
    D) improve its technology or increase its resources.

113. Efficient production occurs when the economy is:
    A) operating inside its production possibility frontier.
    B) operating on its production possibility frontier.
    C) operating outside its production possibility frontier.
    D) moving beyond its production possibility frontier.

114. Assume an economy is operating on its production possibility frontier, which shows the production of military and civilian goods. If the output of military goods is increased, the output of civilian goods:
    A) will increase, too.
    B) will not change.
    C) must decrease.
    D) may increase or decrease.

115. The process observed when an economy's production possibility frontier shifts outward is:
    A) comparative advantage.
    B) economic growth.
    C) full employment.
    D) specialization.

116. Increases in resources or improvements in technology will tend to cause a society's production possibility frontier to:
    A) shift inward.
    B) shift outward.
    C) remain unchanged.
    D) become vertical.

117. Technological improvements will:
    A) leave the production possibility frontier unchanged.
    B) shift the production possibility frontier inward.
    C) shift the production possibility frontier outward.
    D) necessarily lead to increased unemployment.

Use the following to answer questions 118-120:

Figure: Consumer and Capital Goods
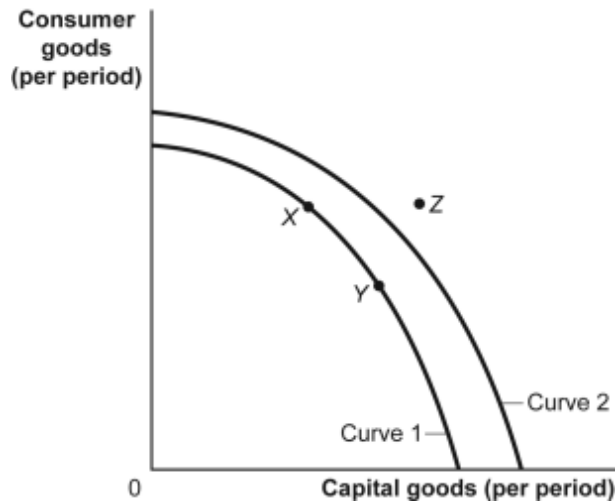
118. (Figure: Consumer and Capital Goods) Look at the figure Consumer and Capital Goods. If the economy is operating at point *Y* and its relevant production possibility frontier is curve 1:
    A) the economy is at full employment and is efficient.
    B) the economy is less than fully employed.
    C) the economy is not efficient.
    D) economic growth is not possible in the future.

119. (Figure: Consumer and Capital Goods) Look at the figure Consumer and Capital Goods. The movement from curve 1 to curve 2 indicates:
    A) a growing ability of the economy to produce capital and consumer goods.
    B) going from unemployment to full employment.
    C) a decrease in the factors of production.
    D) a shift of the production possibility frontier toward producing fewer goods.

120. (Figure: Consumer and Capital Goods) Look at the figure Consumer and Capital Goods. Technological improvements will likely:
    A) shift the production possibility frontier inward to curve 1.
    B) shift the production possibility frontier outward to curve 2.
    C) lead to increased unemployment.
    D) leave the production possibility frontier unchanged.

121. Abe starts exercising regularly, and after a few months he can do twice as much of everything. In a single day Abe can now make 10 hamburgers or 8 milkshakes rather than the 5 hamburgers and 4 milkshakes he made in the past. We now know that Abe's production possibility frontier has _____, but his opportunity costs of making milkshakes _____.
   A) shifted right; are unchanged
   B) shifted right; have decreased
   C) not changed; have increased
   D) not changed; have decreased

122. When a nation's economy grows:
   A) its production possibility frontier shifts outward.
   B) its production possibility frontier shifts inward.
   C) it has been able to reach full employment.
   D) it has moved to a more consumer-oriented position on its production possibility frontier.

123. As long as people have different _____, everyone has a comparative advantage in something.
   A) direct costs
   B) benefits
   C) utility
   D) opportunity costs

124. Because of trade, a country may:
   A) consume outside its production possibility frontier.
   B) consume inside its production possibility frontier.
   C) find its production possibility frontier shifting outward.
   D) avoid opportunity costs.

125. An economy is said to have a comparative advantage if it:
   A) can produce more of all goods than another economy.
   B) can produce less of all goods than another economy.
   C) has the highest cost of producing a particular good.
   D) has the lowest cost of producing a particular good.

126. The economy with the lowest opportunity cost of producing a particular good is said to have:
A) a technological advantage.
B) a comparative advantage.
C) a production possibility frontier.
D) an increasing opportunity cost.

127. An economy is said to have a comparative advantage in the production of a good if it can produce that good:
A) with more resources than another economy.
B) with a higher opportunity cost than another economy.
C) outside its production possibilities curve.
D) at a lower opportunity cost than another economy.

Use the following to answer question 128:

Table: Fish and Coconut Production Possibilities

	Fish	Coconuts
Tom	12	8
Hank	5	5

128. (Table: Fish and Coconut Production Possibilities) The table shows the maximum amount of fish and coconuts that Tom and Hank can produce if they produce only one good. Tom produces and consumes nine fish and two coconuts, and Hank produces and consumes three fish and two coconuts. Now they decide to engage in trade. Which of the following statements is INCORRECT?
A) For both to become better off, each should specialize in the production of some good. However, since Hank is equally productive in both goods, it doesn't matter which good each specializes in.
B) For both to become better off, each should specialize completely in the production of the good in which he has a comparative advantage.
C) After trade it is possible for Tom to consume 9 fish and 2.5 coconuts and for Hank to consume 3 fish and 2.5 coconuts.
D) For each individual, the consumption point after trade will lie outside that individual's production possibility frontier.

129. In one hour, the United States can produce 25 tons of steel or 250 automobiles. In one hour, Japan can produce 30 tons of steel or 275 automobiles. This information implies that:
   A)   Japan has a comparative advantage in the production of automobiles.
   B)   the United States has an absolute advantage in the production of steel.
   C)   Japan has a comparative advantage in the production of both goods.
   D)   the United States has a comparative advantage in the production of automobiles.

Use the following to answer questions 130-131:

Table: Coffee and Salmon Production Possibilities

	Coffee	Salmon
Brazil	40	20
Alaska	10	10

130. (Table: Coffee and Salmon Production Possibilities) Look at the table Coffee and Salmon Production Possibilities. The table shows the maximum amounts of coffee and salmon that Brazil and Alaska can produce if they just produce one good. The opportunity cost of producing 1 unit of coffee for Brazil is:
   A)   2 salmon.
   B)   0.25 salmon.
   C)   1 salmon.
   D)   0.5 salmon.

131. (Table: Coffee and Salmon Production Possibilities) Look at the table Coffee and Salmon Production Possibilities. The table shows the maximum amounts of coffee and salmon that Brazil and Alaska can produce if they just produce one good. The opportunity cost of producing 1 unit of salmon for Alaska is:
   A)   2 coffees.
   B)   0.25 coffee.
   C)   1 coffee.
   D)   0.5 coffee.

132. Free trade between countries:
   A)   should be based on absolute advantage.
   B)   will allow wealthy countries to exploit less developed nations.
   C)   will shift the domestic production possibility frontier to the right.
   D)   will allow for greater levels of consumption than without trade.

133. If they spend all night writing computer programs, Laurence can write 10 programs, and Carrie Anne can write 5. If they spend all night making sunglasses, Laurence can make 6 pairs, and Carrie Anne can make 4. Given this information and supposing Laurence and Carrie Anne have constant opportunity costs, we know that _____ has an absolute advantage in _____.
    A) Laurence; programs but not in sunglasses.
    B) Laurence; both programs and sunglasses.
    C) Carrie Anne; programs but not in sunglasses.
    D) Carrie Anne; both programs and sunglasses.

134. If they spend all night writing computer programs, Laurence can write 10 programs, and Carrie Anne can write 5. If they spend all night making sunglasses, Laurence can make 6 pairs, and Carrie Anne can make 4. We know that:
    A) Laurence's opportunity cost of writing programs is less than Carrie Anne's.
    B) Laurence's opportunity costs of writing programs and of making sunglasses are less than Carrie Anne's.
    C) Carrie Anne's opportunity costs of writing programs and of making sunglasses are less than Laurence's.
    D) Carrie Anne's opportunity cost of writing programs is less than Laurence's.

135. If they spend all night writing computer programs, Laurence can write 10 programs, and Carrie Anne can write 5. If they spend all night making sunglasses, Laurence can make 6 pairs, and Carrie Anne can make 4. We know that _____ has a comparative advantage in _____.
    A) Laurence; programs
    B) Laurence; both programs and sunglasses
    C) Carrie Anne; programs
    D) Carrie Anne; both programs and sunglasses

136. Which of the following statements is TRUE?
    A) Some very talented people have a comparative advantage in everything they do.
    B) Some very untalented people have a comparative advantage in nothing they do.
    C) Some very talented people have a very low opportunity cost in everything they do.
    D) It is possible to have an absolute disadvantage but a comparative advantage in something.

137. In a single day, Sarah can produce 10 hamburgers, and Abe can produce 5 hamburgers. Therefore, _____ has a(n) _____ advantage in making hamburgers.
A) Sarah; comparative
B) Sarah; absolute
C) Abe; comparative
D) Abe; absolute

138. If they produce only hamburgers, in a single day Sarah can produce 10 hamburgers, and Abe can produce 5 hamburgers. If they make milkshakes only, in a single day Sarah can produce 10 milkshakes, and Abe can produce 4 milkshakes. Therefore, _____ has an absolute advantage and a comparative advantage in making _____.
A) Sarah; hamburgers
B) Sarah; milkshakes
C) Abe; hamburgers
D) Abe; milkshakes

139. Roommates Sarah and Zoe are hosting a Halloween party and have to make food for their guests and costumes for themselves. To finish both tasks as quickly as possible, Sarah and Zoe know that each of them should focus on just one task, but they don't know who should do what. Sarah and Zoe should determine which roommate:
A) has the absolute advantage in cooking.
B) has the comparative advantage in cooking.
C) can cook the most in a given amount of time.
D) can complete the cooking in the least amount of time.

140. Economists generally believe that a country should specialize in the production of a good or service if:
A) the production possibility frontier is further from the origin than that of any other country.
B) the production possibility frontier is closer to the origin than that of any other country.
C) the country can produce the product using more resources than any other country.
D) the country can produce the product while forgoing fewer alternative products than any other country.

Use the following to answer questions 141-143:

Table: Coffee and Salmon Production Possibilities II

	Coffee	Salmon
Brazil	40	20
Alaska	20	20

141. (Table: Coffee and Salmon Production Possibilities II) Look at the table Coffee and Salmon Production Possibilities II. This table shows the maximum amounts of coffee and salmon, both measured in pounds, that Brazil and Alaska can produce if they just produce one good. Brazil has an absolute advantage in producing:
A) coffee only.
B) salmon only.
C) both coffee and salmon.
D) neither coffee nor salmon.

142. (Table: Coffee and Salmon Production Possibilities II) Look at the table Coffee and Salmon Production Possibilities II. This table shows the maximum amounts of coffee and salmon, both measured in pounds, that Brazil and Alaska can produce if they just produce one good. Alaska has an absolute advantage in producing:
A) coffee only.
B) salmon only.
C) both coffee and salmon.
D) neither coffee nor salmon.

143. (Table: Coffee and Salmon Production Possibilities II) Look at the table Coffee and Salmon Production Possibilities II. This table shows the maximum amounts of coffee and salmon, both measured in pounds, that Brazil and Alaska can produce if they just produce one good. Brazil has a comparative advantage in producing:
A) coffee only.
B) salmon only.
C) both coffee and salmon.
D) neither coffee nor salmon.

144. An economy is said to have a comparative advantage in the production of one good if it:
A) can produce more of all goods than another economy.
B) can produce less of all goods than another economy.
C) has the highest opportunity cost of producing a particular good.
D) has the lowest opportunity cost of producing a particular good.

145. An economy that has the lowest opportunity cost of producing a particular good is said to have:
    A) an absolute advantage in production of that good.
    B) a comparative advantage in production of that good.
    C) a production possibility frontier.
    D) an increasing opportunity cost in production of that good.

146. The concept of comparative advantage is based upon:
    A) absolute labor productivity.
    B) relative labor costs.
    C) dollar prices of labor.
    D) relative opportunity costs.

147. An economy is said to have a comparative advantage in the production of a good if it can produce that good:
    A) with more resources than another economy.
    B) with a higher opportunity cost than another economy.
    C) outside its production possibility frontier.
    D) at a lower opportunity cost than another economy.

148. If the opportunity cost of manufacturing machinery is lower in the United States than in Britain and the opportunity cost of manufacturing sweaters is higher in the United States than in Britain, then the United States will:
    A) export both sweaters and machinery to Britain.
    B) import both sweaters and machinery from Britain.
    C) export sweaters to Britain and import machinery from Britain.
    D) import sweaters from Britain and export machinery to Britain.

149. If the opportunity cost of manufacturing machinery is higher in the United States than in Britain and the opportunity cost of manufacturing sweaters is lower in the United States than in Britain, then the United States will:
    A) export both sweaters and machinery to Britain.
    B) import both sweaters and machinery from Britain.
    C) export sweaters to Britain and import machinery from Britain.
    D) import sweaters from Britain and export machinery to Britain.

150. Trade can be beneficial to an economy because:
    A) it results in a more efficient use of the combined resources of some of the trading countries, even though it reduces efficiency in others.
    B) more goods and services can be obtained at lower opportunity cost.
    C) it prevents specialization in activities in which countries have a comparative advantage.
    D) it prevents unemployment.

151. If Brazil gives up three automobiles for each ton of coffee it produces, while Peru gives up seven automobiles for each ton of coffee it produces, then Brazil has a comparative advantage in _____ production and should specialize in _____.
    A) automobile; coffee
    B) coffee; automobiles
    C) coffee; coffee
    D) automobile; automobiles

152. If countries engage in international trade:
    A) they give up the ability to specialize in production.
    B) worldwide levels of production are lower.
    C) they will be consuming inside their production possibility frontiers.
    D) they will be consuming outside their production possibility frontiers.

Use the following to answer questions 153-160:

Table: Comparative Advantage I

Sweden and Finland produce only two goods, herring and cell phones, and this table shows the maximum amount that each nation can produce of the two goods.

	Sweden	Finland
Herring	100,000	50,000
Cell phones	10,000	10,000

153. (Table: Comparative Advantage I) Look at the table Comparative Advantage I. Sweden has an absolute advantage in producing:
    A) cell phones only.
    B) herring only.
    C) both cell phones and herring.
   D) neither cell phones nor herring.

154. (Table: Comparative Advantage I) Look at the table Comparative Advantage I. Finland has an absolute advantage in producing:
   A) cell phones only.
   B) herring only.
   C) both cell phones and herring.
   D) neither cell phones nor herring.

155. (Table: Comparative Advantage I) Look at the table Comparative Advantage I. Sweden has a comparative advantage in producing:
   A) cell phones only.
   B) herring only.
   C) both cell phones and herring.
   D) neither cell phones nor herring.

156. (Table: Comparative Advantage I) Look at the table Comparative Advantage I. Finland has a comparative advantage in producing:
   A) cell phones only.
   B) herring only.
   C) both cell phones and herring.
   D) neither cell phones nor herring.

157. (Table: Comparative Advantage I) Look at the table Comparative Advantage I. The opportunity cost of producing 1 box of cell phones for Sweden is _____ box(es) of herring.
   A) 10
   B) 0.2
   C) 5
   D) 0.1

158. (Table: Comparative Advantage I) Look at the table Comparative Advantage I. The opportunity cost of producing 1 box of cell phones for Finland is _____ box(es) of herring.
   A) 10
   B) 0.5
   C) 5
   D) 0.1

159. (Table: Comparative Advantage I) Look at the table Comparative Advantage I. The opportunity cost of producing 1 box of herring for Sweden is _____ box(es) of cell phones.
   A) 10
   B) 0.5
   C) 5
   D) 0.1

160. (Table: Comparative Advantage I) Look at the table Comparative Advantage I. The opportunity cost of producing 1 box of herring for Finland is _____ box(es) of cell phones.
   A) 10
   B) 0.2
   C) 5
   D) 0.1

Use the following to answer questions 161-168:

Figure: Comparative Advantage
Eastland and Westland produce only two goods, boxes of peaches and boxes of oranges, and this figure shows each nation's production possibility frontier for the two goods.
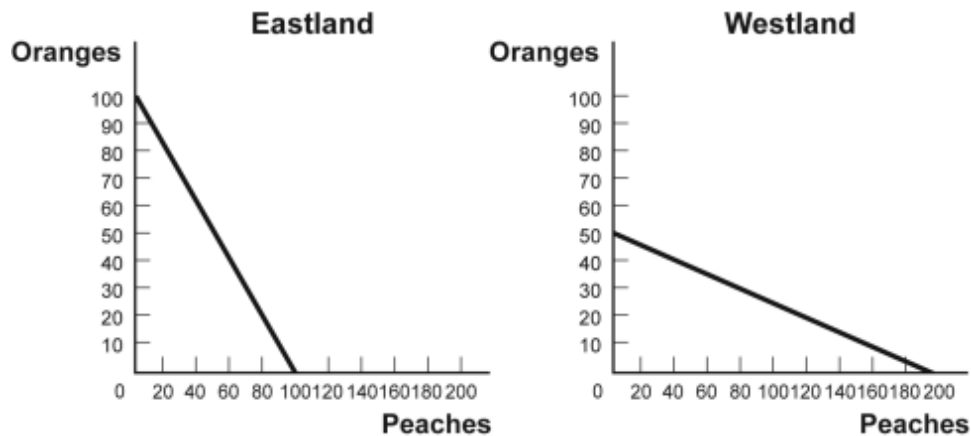
161. (Figure: Comparative Advantage) Look at the figure Comparative Advantage. Eastland has an absolute advantage in producing:
   A) oranges only.
   B) peaches only.
   C) both oranges and peaches.
   D) neither oranges nor peaches.

162. (Figure: Comparative Advantage) Look at the figure Comparative Advantage. Westland has an absolute advantage in producing:
A) oranges only.
B) peaches only.
C) both oranges and peaches.
D) neither oranges or peaches.

163. (Figure: Comparative Advantage) Look at the figure Comparative Advantage. The opportunity cost of producing 1 box of oranges for Eastland is _____ box(es) of peaches.
A) 1
B) 0.25
C) 4
D) 10

164. (Figure: Comparative Advantage) Look at the figure Comparative Advantage. The opportunity cost of producing 1 box of oranges for Westland is _____ box(es) of peaches.
A) 1
B) 0.25
C) 4
D) 10

165. (Figure: Comparative Advantage) Look at the figure Comparative Advantage. The opportunity cost of producing 1 box of peaches for Eastland is _____ box(es) of oranges.
A) 1
B) 0.25
C) 4
D) 10

166. (Figure: Comparative Advantage) Look at the figure Comparative Advantage. The opportunity cost of producing 1 box of peaches for Westland is _____ box(es) of oranges.
A) 1
B) 0.25
C) 4
D) 10

167. (Figure: Comparative Advantage) Look at the figure Comparative Advantage. Eastland has a comparative advantage in producing:
    A) oranges only.
    B) peaches only.
    C) both oranges and peaches.
    D) neither oranges nor peaches.

168. (Figure: Comparative Advantage) Look at the figure Comparative Advantage. Westland has a comparative advantage in producing:
    A) oranges only.
    B) peaches only.
    C) both oranges and peaches.
    D) neither oranges nor peaches.

169. Which of the following statements is TRUE?
    A) Very talented people may have a comparative advantage in everything they do.
    B) Very untalented people have a comparative advantage in something they do.
    C) Very talented people may have a low opportunity cost in most things they do.
    D) Very untalented people may have a high opportunity cost in most things they do.

170. In a single day, George can bake 10 cakes and Greta can bake 5 cakes. We know that _____ has a(n) _____ advantage in baking cakes.
    A) George; comparative
    B) George; absolute
    C) Greta; comparative
    D) Greta; absolute

171. If they bake only cakes, in a single day George can bake 10 cakes and Greta can bake 5 cakes. If they make only pies, in a single day George can bake 10 pies while Greta can bake 4 pies. We know that _____ has an absolute advantage and a comparative advantage in making _____.
    A) George; cakes
    B) George; pies
    C) Greta; cakes
    D) Greta; pies

172. Greta starts using a new baking technique, and she can now do twice as much of everything. In a single day Greta can now make 10 cakes or 8 pies, rather than the 5 cakes and 4 pies she could previously bake. Greta's production possibility frontier has _____, but her opportunity costs of making pies _____.
A) shifted right; are unchanged
B) shifted right; have decreased
C) not changed; have increased
D) not changed; have decreased

173. Coworkers Yvonne and Rodney are washing dishes and sweeping the floors of the store. They know that to finish both tasks as quickly as possible, each of them should focus on just one task, but they don't know who should do what. Yvonne and Rodney should determine which one:
A) has the absolute advantage in dishwashing.
B) has the comparative advantage in dishwashing.
C) has the production possibility frontier that is farthest from the origin in dishwashing.
D) can wash the dishes faster.

174. To achieve the gains from trade, each nation should specialize in the production of a good or service if:
A) its production possibility frontier is farther from the origin than that of any other country.
B) its production possibility frontier is closer to the origin than that of any other country.
C) the country can make the product using fewer resources than any other country.
D) the country can make the product while forgoing fewer alternative products than any other country.

175. Dr. Colgate is a dentist who employs an assistant, Ms. Crest. If Dr. Colgate worked all day at the front desk, she could answer 40 phone calls. If she worked all day with patients, she could clean the teeth of 40 patients. If Ms. Crest worked all day at the front desk, she could answer 60 phone calls. If she worked all day with patients, she could clean the teeth of 20 patients. _____ has a(n) _____ advantage in _____.
A) Dr. Colgate; absolute; answering phones
B) Ms. Crest; comparative; answering phones
C) Ms. Crest; absolute; cleaning patients' teeth
D) Dr. Colgate; comparative; answering phones

Use the following to answer questions 176-177:

Table: Wheat and Aluminum

	Wheat Production	Aluminum Production
U.S.	100	0
	0	100

	Wheat Production	Aluminum Production
Germany	50	0
	0	100

176. (Table: Wheat and Aluminum) Look at the table Wheat and Aluminum. The United States and Germany can produce both wheat and aluminum. The table shows, in tonnage, the maximum annual output combinations of wheat and aluminum that can be produced. Which of the following choices represents a possible trade based upon specialization and comparative advantage?
   A) Germany would trade 2 tons of wheat to the United States for 1 ton of aluminum.
   B) Germany would trade 2 tons of aluminum to the United States for 0.5 ton of wheat.
   C) The United States would trade 1 ton of wheat to Germany for 1 ton of aluminum.
   D) The United States would trade 1 ton of wheat to Germany for 1.5 tons of aluminum.

177. (Table: Wheat and Aluminum) Look at the table Wheat and Aluminum. The United States and Germany can produce both wheat and aluminum. The table shows the maximum annual output combinations of wheat and aluminum that can be produced. Based on the table:
   A) the United States has a comparative advantage in wheat and an absolute advantage in wheat.
   B) Germany has an absolute advantage in aluminum and a comparative advantage in wheat.
   C) the United States has a comparative advantage in both aluminum and wheat.
   D) Germany has a comparative advantage in aluminum and an absolute advantage in aluminum.

178. In one day, Kessy can bake 10 cookies or mix 15 glasses of lemonade. His friend Ava can make 10 cookies or 10 glasses of lemonade. His other friend, Ian, can make 10 cookies or 20 glasses of lemonade. Who has the lowest opportunity cost in cookie production?
    A) Kessy
    B) Ava
    C) Ian
    D) Kessy and Ava have the same opportunity cost in cookie production.

179. Because Casey can type reports faster and more accurately than Ahmet, Casey has a(n) _____ in typing reports.
    A) comparative advantage
    B) absolute advantage
    C) opportunity cost
    D) specialization

180. Mark and Julie are going to sell brownies and cookies for their third annual fundraiser bake sale. In one day, Mark can make 40 brownies or 20 cookies, and Julie can make 15 brownies or 15 cookies. Based on this information, _____ has the comparative advantage in making brownies and _____ has the comparative advantage in making cookies.
    A) Mark; Julie
    B) Mark; Mark
    C) Julie; Mark
    D) Julie; Julie

181. Mark and Julie are going to sell brownies and cookies for their third annual fundraiser bake sale. In one day, Mark can make 40 brownies or 20 cookies, and Julie can make 15 brownies or 15 cookies. What is Mark's opportunity cost to produce one brownie?
    A) 1 cookie
    B) 1 brownie
    C) 0.5 cookie
    D) 0.5 brownie

182. Mark and Julie are going to sell brownies and cookies for their third annual fundraiser bake sale. In one day, Mark can make 40 brownies or 20 cookies, and Julie can make 15 brownies or 15 cookies. With specialization, _____ brownies and _____ cookies will be made in one day.
A) 15; 20
B) 40; 20
C) 40; 15
D) 55; 35

183. Mark and Julie are going to sell brownies and cookies for their third annual fundraiser bake sale. In one day, Mark can make 40 brownies or 20 cookies, and Julie can make 15 brownies or 15 cookies. Based on this information, _____ has the absolute advantage in making brownies and _____ has the absolute advantage in making cookies.
A) Mark; Julie
B) Mark; Mark
C) Julie; Mark
D) Mark; neither Mark nor Julie

Use the following to answer questions 184-185:

Table: Bongos and Frisbees

| Bill		Mickey	
Bongos	**Frisbees**	**Bongos**	**Frisbees**
1	10	4	14
2	9	5	12
3	8	6	10

184. (Table: Bongos and Frisbees) Look at the table Bongos and Frisbees. Bill and Mickey make bongos and Frisbees. Who has the comparative advantage in producing Frisbees?
A) Bill
B) Mickey
C) both
D) neither

185. (Table: Bongos and Frisbees) Look at the table Bongos and Frisbees. Bill and Mickey make bongos and Frisbees. Who should specialize in the production of bongos?
A) Bill
B) Mickey
C) both
D) neither

186. If the opportunity cost of manufacturing automobiles is lower in the United States than in Britain and the opportunity cost of manufacturing airplanes is higher in the United States than in Britain, then the United States will:
   A) export both airplanes and automobiles to Britain.
   B) import both airplanes and automobiles from Britain.
   C) export airplanes to Britain and import automobiles from Britain.
   D) import airplanes from Britain and export automobiles to Britain.

187. If the opportunity cost of manufacturing automobiles is higher in the United States than in Britain and the opportunity cost of manufacturing airplanes is lower in the United States than in Britain, then the United States will:
   A) export both airplanes and automobiles to Britain.
   B) import both airplanes and automobiles from Britain.
   C) export airplanes to Britain and import automobiles from Britain.
   D) import airplanes from Britain and export automobiles to Britain.

188. Assume that Colombia gives up three motorcycles for each ton of coffee it produces, while Bolivia gives up seven motorcycles for each ton of coffee it produces. Colombia has a comparative advantage in _____ production and should specialize in _____.
   A) motorcycle; coffee
   B) coffee; motorcycles
   C) coffee; coffee
   D) motorcycle; motorcycles

189. Economists are generally in support of:
   A) government restrictions on trade.
   B) free international trade.
   C) tariffs to restrict trade.
   D) subsidizing exports.

190. Trade takes the form of _____ when people directly exchange goods they have for goods they want.
   A) exploitation
   B) benevolence
   C) barter
   D) the zero-sum game

191. The simplest circular-flow model shows the interaction between households and firms. In this model:
   A) only barter transactions take place.
   B) households and firms interact in the market for goods and services, but firms are the only participants in the factor markets.
   C) firms supply goods and services to households, which in turn supply factors of production to firms.
   D) attention is focused on real flows of goods, services, and factors of production, but money flows between households and firms are ignored for simplicity.

192. A high-school graduate who gets a college degree is adding to the economy's stock of:
   A) labor.
   B) capital.
   C) human capital.
   D) financial capital.

Use the following to answer questions 193-196:

Figure: Production Possibilities and Circular-Flow Diagram
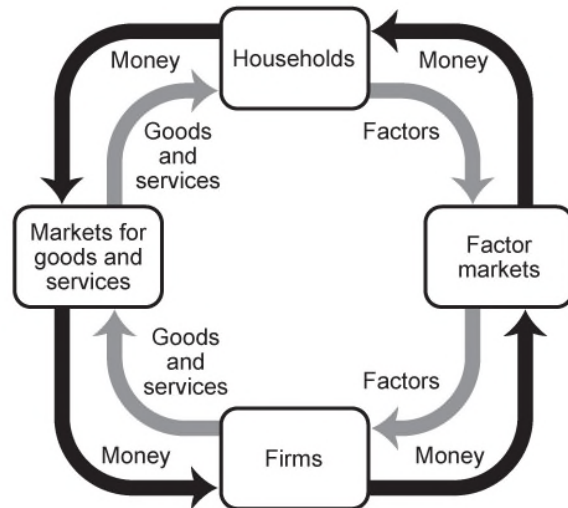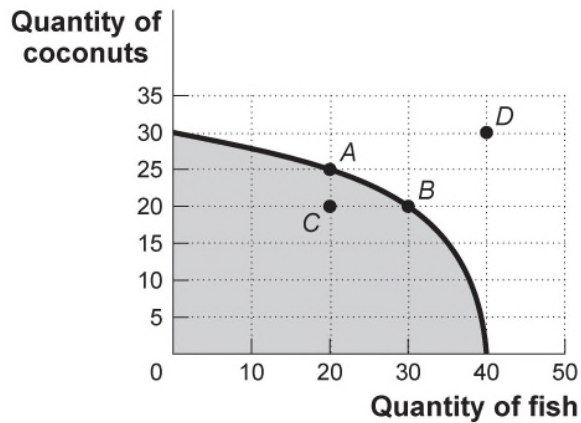
193. (Figure: Production Possibilities and Circular-Flow Diagram) Look at the figure Production Possibilities and Circular-Flow Diagram. Assume the two figures represent the same economy. Suppose that in the circular-flow diagram there is a significant decrease in the amount of labor flowing to the firms that produce coconuts. If all other variables remain unchanged, this adjustment in the economy would be best represented in the production possibilities figure by a move from point *A* toward:
   A)   point *A* (no movement).
   B)   point *B* (a decrease in coconut production and an increase in fish production).
   C)   point *C* (a decrease in coconut production).
   D)   point *D* (an outward shift of the entire curve).

194. (Figure: Production Possibilities and Circular-Flow Diagram) Look at the figure Production Possibilities and Circular-Flow Diagram. Assume the two figures represent the same economy. Suppose that in the circular-flow diagram capital that used to flow to firms producing coconuts now flows to firms producing fish. This adjustment in the economy would be best represented in the production possibilities figure by a move from point *A* toward:
   A)   point *A* (no movement).
   B)   point *B* (a decrease in coconut production and an increase in fish production).
   C)   point *C* (a decrease in coconut production).
   D)   point *D* (an outward shift of the entire curve).

195. (Figure: Production Possibilities and Circular-Flow Diagram) Look at the figure Production Possibilities and Circular-Flow Diagram. Assume the two figures represent the same economy. Suppose that in the circular-flow diagram there is a significant increase in the amount of human capital flowing to both coconut producers and fish producers. If all other variables remain unchanged, then the adjustment in this economy would be best represented in the production possibilities figure by a movement from point *A* toward:
   A)   point *A* (no movement).
   B)   point *B* (a decrease in coconut production and an increase in fish production).
   C)   point *C* (a decrease in coconut production).
   D)   point *D* (an outward shift of the entire curve).

196. (Figure: Production Possibilities and Circular-Flow Diagram) Look at the figure Production Possibilities and Circular-Flow Diagram. Assume the two figures represent the same economy. Suppose that in the circular-flow diagram most firms undergo a significant increase in productivity. This results in a significant increase in the output of both coconuts and fish. If all other variables remain unchanged, then the adjustment in this economy would be best represented in the production possibilities figure by a movement from point *A* toward:
    A) point *A* (no movement).
    B) point *B* (a decrease in coconut production and an increase in fish production).
    C) point *C* (a decrease in coconut production).
    D) point *D* (an outward shift of the entire curve).

197. If LeRoyce trades two cookies for one of Amir's brownies, we say that they are engaging in:
    A) exploitation.
    B) benevolence.
    C) barter.
    D) a zero-sum game.

198. Which of the following is FALSE about the circular-flow diagram?
    A) Households are the primary demanders of goods and services.
    B) Firms are the primary suppliers of goods and services.
    C) Money flows from households to firms as households offer factors of production for sale.
    D) Money flows in the direction opposite to goods and services and factors of production.

199. Which of the following is NOT a factor of production?
    A) labor
    B) machines and buildings
    C) land
    D) money

200. The circular-flow diagram illustrates how households _____ goods and services and _____ factors of production.
    A) buy; sell
    B) buy; buy
    C) own; buy
    D) own; sell

201. The circular-flow diagram illustrates how firms _____ goods and services and _____ factors of production.
   A) buy; sell
   B) buy; buy
   C) sell; buy
   D) sell; sell

202. In the simplest circular-flow model, households supply _____ and demand _____.
   A) capital; barter
   B) wages and income; capital markets
   C) factors of production; goods and services
   D) firms; markets

203. The circular-flow diagram represents the market for _____ and the market for _____.
   A) goods and services; factors
   B) households; firms
   C) money; goods and services
   D) factors; money

204. The circular-flow diagram shows the flow of _____ and the flow of _____.
   A) goods and services; factors
   B) households; firms
   C) money; goods and services
   D) factors; money

205. The circular-flow diagram shows how:
   A) banks receive deposits and create money.
   B) money, goods and services, and factors of production flow through the economy.
   C) the various levels of government allocate tax revenues to meet the needs of society.
   D) the work force is educated and trained to increase labor productivity.

206. The basis of the circular-flow diagram is that:
   A) the best models avoid making assumptions.
   B) goods and services flow in a circle in the factor market.
   C) resources are sold along with goods and services in the resource market.
   D) the flow of money into each market or sector is equal to the flow of money coming out of that market or sector.

207. In the circular-flow diagram the flow of money going into each sector or market is _____ the flow of money coming out of that market or sector.
   A)   equal to
   B)   greater than
   C)   less than
   D)   unrelated to

208. In the circular-flow diagram, an individual or a group of people (usually a family) who share their income is a(n):
   A)   market.
   B)   factor.
   C)   household.
   D)   business.

209. In the circular-flow diagram, a household is:
   A)   an entity that sells goods and services.
   B)   an individual or group of people who share their income.
   C)   an entity that purchases factors of production.
   D)   a member of a group that is prohibited from buying imported goods and services.

210. In the circular-flow diagram, an organization that produces goods or services for sale is a:
   A)   market.
   B)   household.
   C)   factor.
   D)   firm.

211. In the circular-flow diagram, a firm is:
   A)   an organization that produces goods or services for sale.
   B)   an individual or a group of people who share their income.
   C)   an organization that sells factors of production.
   D)   an organization that purchases goods and services.

212. In the circular-flow diagram, the product market is where:
   A)   firms buy goods and services.
   B)   firms buy resources used to produce goods and services.
   C)   households buy goods and services.
   D)   households buy resources used to produce goods and services.

213. Households buy goods and services in the _____ markets.
    A) factor
    B) product
    C) resource
    D) financial

214. In the circular-flow diagram, the factor market is where:
    A) households buy factors of production.
    B) households buy goods and services.
    C) businesses buy goods and services.
    D) businesses buy factors of production.

215. Businesses buy resources used to produce goods and services in the:
    A) factor market.
    B) product market.
    C) market for goods and services.
    D) foreign exchange market.

216. Jim is being paid $7.25 an hour to work at a restaurant. In the circular flow this is an
    example of a:
    A) business selling goods and services in the product market.
    B) household buying goods and services in the product market.
    C) household buying goods and services in the factor market.
    D) household selling a resource in the factor market.

217. Jim is being paid $7.25 an hour to work at a restaurant. In the circular flow this is an
    example of a:
    A) business selling goods and services in the product market.
    B) household buying goods and services in the product market.
    C) business buying resources in the factor market.
    D) household buying a resource in the factor market.

218. Mary spends $5 on food for her cat. This is an example of a:
    A) business buying goods and services in the product market.
    B) household buying goods and services in the product market.
    C) household buying goods and services in the factor market.
    D) household selling a resource in the factor market.

219. Which of the following is sold in the factor market?
    A)   hamburgers
    B)   video games
    C)   haircuts
    D)   labor

220. Which of the following is sold in the factor market?
    A)   hot dogs
    B)   bulldozers
    C)   nail polish
    D)   appendectomies

221. Which of the following is sold in the product market?
    A)   land
    B)   labor
    C)   cell phones
    D)   human capital

222. Which of the following is sold in the product market?
    A)   footballs
    B)   labor
    C)   physical capital
    D)   human capital

223. In the circular-flow diagram households buy _____ in the _____ market.
    A)   goods and services; product
    B)   goods and services; factor
    C)   resources; factor
    D)   resources; product

224. In the circular-flow diagram households receive money for _____ in the _____ market.
    A)   producing and selling goods and services; product
    B)   selling resources; product
    C)   selling resources; factor
    D)   selling goods and services; factor

225. In the circular-flow diagram firms buy _____ in the _____ market.
    A) goods and services; product
    B) goods and services; factor
    C) resources; product
    D) resources; factor

226. In the circular-flow diagram firms receive money for _____ in the _____ market.
    A) selling goods and services; product
    B) selling resources; product
    C) selling resources; factor
    D) selling goods and services; factor

227. Which of the following two statements is a positive statement? Which is a normative statement?
    I. The federal minimum wage in 2014 was $7.25 an hour.
    II. The minimum wage should be high enough that families will not live in poverty.
    A) I is positive; II is normative.
    B) I is positive; II is positive.
    C) I is normative; II is positive.
    D) I is normative; II is normative.

228. Which of the following is a normative statement?
    A) Women's labor force participation rate has increased during the past 100 years.
    B) The federal minimum wage is higher today than it was in 1990.
    C) Children in the United States are required to go to school until they reach a certain age.
    D) The best way to encourage growth in the economy is through government spending.

229. Which of the following is a normative statement?
    A) The minimum wage has not kept pace with inflation.
    B) The minimum wage is an important tool in fighting poverty and should be increased.
    C) The minimum wage can cause higher unemployment for teens and unskilled workers.
    D) A higher minimum wage is expected to increase the price of a fast-food cheeseburger.

230. Which of the following is a normative statement?
    A) International trade leads to expanded consumption opportunities.
    B) Higher expenditures on health care will reduce infant mortality rates.
    C) To improve our economic security, we should reduce our dependence on oil imports.
    D) Increased defense spending will lead to higher budget deficits.

231. Which of the following is a positive economic statement?
    A) Government has grown too large and should be reduced.
    B) There has been an increase in the rate of inflation.
    C) Government should be subject to the same rules as all other institutions.
    D) Women should be paid as much as men for the same work.

232. Which of the following is a positive statement?
    A) The rate of unemployment is 4%.
    B) A high rate of economic growth is the most important economic goal for the country.
    C) Everyone in the country should be covered by national health insurance.
    D) Baseball players should not be paid higher salaries than the president of the United States.

233. Which of the following is a positive statement?
    A) The rate of unemployment should be 4%.
    B) A high rate of economic growth should be a more important economic goal than a low rate of inflation.
    C) The federal government spends half of its budget on national defense.
    D) Everyone in the country should be covered by national health insurance.

234. "Unemployment of 5% is too high" is:
    A) a normative statement.
    B) a positive statement.
    C) the circular-flow model.
    D) an example of comparative advantage.

235. Which of the following is a normative statement?
    A) Government has grown too large and should be reduced.
    B) The rate of inflation has increased.
    C) Government is subject to the same rules as all other institutions.
    D) The money supply grew by 3% last year.

236. Which of the following is a positive statement?
    A)   The poverty rate is 14%.
    B)   A high rate of inflation is the most important economic goal for the country.
    C)   Everyone in the country should save money for retirement.
    D)   Basketball players should not be paid higher salaries than teachers.

237. Which of the following is an example of a positive statement?
    A)   The poverty rate should be 4%.
    B)   A high rate of economic growth should be a more important goal for the country
         than a low rate of unemployment.
    C)   The federal government pays for 46% of U.S. health care costs.
    D)   Everyone in the country should be covered by national health insurance.

238. Statements that make value judgments are:
    A)   pecuniary.
    B)   positive.
    C)   nominal.
    D)   normative.

239. Which of the following is a normative statement?
    A)   The rate of unemployment is 9%.
    B)   The price of gasoline should be less than $4 per gallon.
    C)   The federal government spends half of its budget on national defense.
    D)   Millions of Americans lack health insurance.

240. Which of the following is a normative statement?
    A)   The rate of unemployment is 9%.
    B)   A high rate of economic growth creates jobs.
    C)   The federal government spends half of its budget on national defense.
    D)   Everyone in the United States deserves to be covered by national health insurance.

241. "The current rate of unemployment of 9% is too high" is a _____ statement.
    A)   normative
    B)   *ceteris paribus*
    C)   positive
    D)   marginal

242. "The rate of unemployment is 9%." This statement:
    A) is positive.
    B) is normative.
    C) involves a value judgment.
    D) is a personal reflection and has no value in economics.

243. Unemployment decreased to its lowest level in 10 years last month. This statement is:
    A) an example of an opportunity cost.
    B) a positive economic statement.
    C) a normative economic statement.
    D) a value judgment.

244. A statement that the minimum wage should be increased is a:
    A) positive statement.
    B) normative statement.
    C) *ceteris paribus* assumption.
    D) scientific conclusion based on marginal analysis.

245. A normative statement deals with:
    A) the facts.
    B) what was, is, or will be.
    C) what ought to be.
    D) the scientific method.

246. Which of the following offices of the U.S. government is a major employer of economists?
    A) International Monetary Fund
    B) United Nations
    C) World Bank
    D) Bureau of Labor Statistics

247. Economists who are asked to choose between two government policies may disagree because:
    A) they make the same value judgments about the desirability of the policies.
    B) they base their conclusions on models that make different assumptions.
    C) as a matter of course, economists often take opposing points of view so that all sides of a question may be discussed.
    D) economists are trained ignore facts and focus on theory.

248. Economists may disagree about policies because they:
    A) approach the issue using the same sets of values.
    B) use different economic models.
    C) enjoy disagreeing with each other.
    D) only consider issues in positive economics.

249. Economic models that make unrealistic assumptions may be useful in analyzing some economic problems.
    A) True
    B) False

250. It is impossible for economists to use computers to simulate how the economy works.
    A) True
    B) False

251. In building models, economists avoid making any assumptions that might leave out any aspect of reality.
    A) True
    B) False

252. In building models, economists often assume that opportunity costs don't matter.
    A) True
    B) False

253. The assumption *ceteris paribus* in a model means "other things equal."
    A) True
    B) False

254. Because models make simplifying assumptions, they are of very little use in the real world.
    A) True
    B) False

255. An economic model is a simplified version of reality that is used to analyze real-world economic situations.
    A) True
    B) False

256. The financial meltdown in 2008–2009 was partially the result of a faulty economic model that underestimated the risk of mortgage-backed securities.
   A) True
   B) False

257. A mortgage-backed security is an asset that provides earnings to its owner based on interest on the national debt paid by the Federal Reserve.
   A) True
   B) False

258. After 2000 the market for mortgage-backed securities grew rapidly because economists claimed they had a model that could predict the risk associated with them.
   A) True
   B) False

259. On any given production possibility frontier, we see the minimum quantity of one good that can be produced for any given production of the other.
   A) True
   B) False

260. Suppose residents of Montana operate on their production possibility frontier, and they want to increase production of both wheat and fly-fishing rods. According to the production possibility frontier, this cannot happen without new resources or technological improvement.
   A) True
   B) False

261. A typical bowed-out production possibility frontier between two goods, guns and butter, shows that the opportunity cost of butter in terms of guns increases as more butter is produced. This implies that the opportunity cost of guns in terms of butter decreases as more guns are produced.
   A) True
   B) False

262. If the United States is more productive than Mexico in all lines of production, then the United States cannot benefit from trade with Mexico.
   A) True
   B) False

263. Bangladesh produces much of the clothing we wear because it can produce more clothes than the United States.
   A) True
   B) False

264. Nations can gain from trade with other nations even if they are less productive in all industries than the nations they trade with.
   A) True
   B) False

Use the following to answer questions 265-266:

Table: Fish and Coconut Production Possibilities

	Fish	Coconuts
Tom	12	8
Hank	5	5

265. (Table: Fish and Coconut Production Possibilities) The table Fish and Coconut Production Possibilities shows the maximum amount of fish or coconuts that Tom and Hank can produce when each produces only one of the goods. The table implies that Hank has an absolute advantage in the production of both goods.
   A) True
   B) False

266. (Table: Fish and Coconut Production Possibilities) The table Fish and Coconut Production Possibilities shows the maximum amount of fish or coconuts that Tom and Hank can produce when each produces only one of the goods. The table implies that Tom has a comparative advantage in the production of both goods.
   A) True
   B) False

267. Absolute advantage is the basis for gains from trade.
   A) True
   B) False

268. The principle of comparative advantage suggests that if New York and Florida exchange taxi parts for oranges, each state will be made worse off.
    A) True
    B) False

269. A firm is an organization that produces goods and/or services.
    A) True
    B) False

270. Fertilizer, used to grow pumpkins, is a factor of production.
    A) True
    B) False

271. Labor and capital are the only two factors of production.
    A) True
    B) False

272. The basis of the circular-flow diagram is that the money flowing into each sector or market is greater than the money that flows out.
    A) True
    B) False

273. The basis of the circular-flow diagram is that the money flowing into each sector or market is equal to the money that flows out.
    A) True
    B) False

274. In the product market, households buy goods and services.
    A) True
    B) False

275. In the factor market, households buy goods and services.
    A) True
    B) False

276. In the factor market, firms buy goods and services.
    A) True
    B) False

277. In the factor market, firms buy resources.
    A) True
    B) False

278. If Mary accepts a job as a nurse, she has sold a factor of production in the factor market.
    A) True
    B) False

279. If Jim buys a lunch at a restaurant, he has bought a factor of production in the factor market.
    A) True
    B) False

280. An apple is a resource sold in the factor market.
    A) True
    B) False

281. "Teachers in northern New Hampshire should earn more money" is a normative statement.
    A) True
    B) False

282. Positive economics is the branch of economics that makes prescriptions about the way the economy should work.
    A) True
    B) False

283. "Steel tariffs will prevent job losses in the steel industry" is a positive statement.
    A) True
    B) False

284. "The unemployment rate should be higher" is a normative statement.
    A) True
    B) False

285. "Many economists agree that income taxes should be increased for rich people" is a positive statement.
    A) True
    B) False

286. Economists disagree more over normative economics than positive economics.
    A) True
    B) False

287. Explain how an economic model contributed to the financial crisis in 2008–2009.

288. Consider a point within a production possibility frontier for a simple economy that produces only two goods, X and Y. Why is this point described as feasible but not efficient?

289. Explain why economists believe that production possibility frontiers have a bowed-out curvature rather than a straight line.

290. Leaders of a small town are tired of looking at a vacant and dilapidated warehouse that sits on a prime piece of real estate. The town finds an investor who purchases the warehouse and promises to renovate the old building and build condominiums in the old building. Is this economic growth?

291. Explain how technological progress is a source of economic growth.

Use the following to answer questions 292-293:

Table: Crab and Cake Production in Chesapeake

Crab Production	Cake Production
500	0
400	250
300	450
200	600
100	700
0	750

292. (Table: Crab and Cake Production in Chesapeake) Look at the table Crab and Cake Production in Chesapeake. What is the opportunity cost of increasing the production of crabs from zero to 100? What is the opportunity cost of increasing the production of crabs from 400 to 500? Explain the difference in your answers.

293. (Table: Crab and Cake Production in Chesapeake) Look at the table Crab and Cake Production in Chesapeake. The table shows the maximum annual output combinations of crabs and cakes. Given the scarce resources and limited technology, as Chesapeake uses more resources for the production of cakes, fewer resources are available to produce crabs. Can this nation produce 200 crabs and 500 cakes? Is this efficient? Explain.

Use the following to answer question 294:

Table: Wheat and Aluminum

	Wheat Production	Aluminum Production
U.S.	100	0
	0	100

	Wheat Production	Aluminum Production
Germany	50	0
	0	100

294. (Table: Wheat and Aluminum) Look at the table Wheat and Aluminum. The table shows the maximum possible production of wheat and aluminum for both the United States and Germany. Are gains from trade possible between these nations? Explain.

295. Consider a nation with a large economy, like the United States, and a nation with a small economy, like the Dominican Republic. How can the United States, with absolute advantage in production of almost all goods, benefit from trade with the Dominican Republic?

296. You are reading an editorial in your local newspaper. The editorial says: "The United States had a trade deficit of $18.4 billion in February 2008. This is a clear indication to our leaders that we must renegotiate our trade agreements with China to make them fairer for the American worker." What part of this editorial is positive and what part is normative?

297. Economists use models to explain real-life situations because:
    A) such models tend to be exactly what is occurring in each situation.
    B) assumptions found in such models tend to make analyzing the situation more difficult.
    C) simplifications and assumptions often yield results that can help to explain the more difficult real-life situations.
    D) real-life situations are not relevant to the building of models.

298. Economic models often:
    A) vary greatly in assumptions and simplifications.
    B) are correct.
    C) provide similar answers.
    D) fail to explain any of the real-life scenarios they are supposed to help solve.

299. "All other relevant factors remain unchanged" is another way of saying:
    A) all other things equal.
    B) allow several variables to change to understand how those variables affect one variable held constant.
    C) allow all variables to change and attempt to understand how the variables interact with each other.
    D) no variables change.

300. Alexander has a straight-line, or linear, production possibility frontier when he produces soybeans and corn. If he uses all of his resources to grow soybeans, he can produce 200 bushels of soybeans; if he uses all of his resources for corn production, he can produce 400 bushels of corn. Alexander CANNOT produce _____ bushels of soybeans and _____ bushels of corn.
A) 200; 0
B) 200; 600
C) 0; 400
D) 100; 200

301. Frances has a linear production possibility frontier when she produces tomatoes and green beans. If she uses all of her resources, she can produce 400 bushels of tomatoes or 800 bushels of green beans. Frances CANNOT efficiently produce _____ bushels of tomatoes and _____ bushels of green beans.
A) 400; 0
B) 200;   400
C) 200; 200
D) 0; 800

302. Alison has a linear production possibility frontier in bracelets and necklaces. In one hour, she can produce 5 bracelets or 10 necklaces. What is the opportunity cost to make 1 necklace?
A) 5 bracelets
B) 10 necklaces
C) 0.5 bracelet
D) 2 necklaces

Use the following to answer questions 303-306:

Scenario: Linear Production Possibility Frontier
Largetown has a linear production possibility frontier, and it produces socks and shirts with 80 hours of labor. The table shows the number of hours of labor necessary to produce one pair of socks or one shirt.

Number of hours of labor to produce one shirt	Number of hours of labor to produce one pair of socks
4	2

303. (Scenario: Linear Production Possibility Frontier) Look at the scenario Linear Production Possibility Frontier. What is the maximum number of pairs of socks Largetown can produce?
A) 40
B) 20
C) 2
D) 4

304. (Scenario: Linear Production Possibility Frontier) Look at the scenario Linear Production Possibility Frontier. If Largetown decides to devote half of its labor time to the production of socks and half of the time to the production of shirts, it can produce _____ shirts and _____ pairs of socks.
A) 10; 20
B) 20; 10
C) 30; 30
D) 0; 30

305. (Scenario: Linear Production Possibility Frontier) Look at the scenario Linear Production Possibility Frontier. If Largetown's labor resource decreases by 40 hours, the opportunity cost of producing shirts:
A) increases.
B) decreases.
C) does not change.
D) may or may not change depending upon the number of pairs of socks it wishes to produce.

306. (Scenario: Linear Production Possibility Frontier) Look at the scenario Linear Production Possibility Frontier. Largetown CANNOT produce _____ shirts and _____ pairs of socks.
A) 20; 0
B) 40; 40
C) 0; 40
D) 10; 20

307. Smallville has a linear production possibility frontier in the production of good X and good Y. It can produce 6 of X per hour or 8 of Y per hour. Suppose it has 240 hours of labor and divides labor hours equally between production of good X and good Y. What is the MAXIMUM amount of good Y it can produce?
   A) 960
   B) 30
   C) 14
   D) 6

Use the following to answer questions 308-311:

Table: Production of Good Z and Good X in Urbanville

Combination	Good Z	Good X
A	0	75
B	5	70
C	10	60
D	15	45
E	20	25
F	25	0

308. (Table: Production of Good Z and Good X in Urbanville) Look at the table Production of Good Z and Good X in Urbanville. If this table shows the production possibility frontier and if Urbanville is producing 5 of Z and 50 of X, this combination is:
   A) feasible but inefficient.
   B) feasible and efficient.
   C) not feasible but efficient.
   D) neither feasible nor efficient.

309. (Table: Production of Good Z and Good X in Urbanville) Look at the table Production of Good Z and Good X in Urbanville. Suppose this table shows the production possibility frontier and Urbanville is producing 15 of Z and 45 of X. This combination is:
   A) both allocatively and productively efficient.
   B) productively efficient.
   C) allocatively efficient.
   D) neither productively nor allocatively efficient.

310. (Table: Production of Good Z and Good X in Urbanville) Look at the table Production of Good Z and Good X in Urbanville. Suppose this table shows the production possibility frontier. Urbanville is producing at combination C and moves to combination D. What is the opportunity cost of this move?
    A) 15 of X
    B) 5 of Z
    C) 15 of Z
    D) 45 of X

311. (Table: Production of Good Z and Good X in Urbanville) Look at the table Production of Good Z and Good X in Urbanville. If this table shows the production possibility frontier and Urbanville is producing at combination F, what is the opportunity cost of a move to combination E?
    A) 5 of Z
    B) 20 of Z
    C) 25 of X
    D) 0 of X

312. If an economy produces the desired mix of goods from its available resources, then this mix of goods is:
    A) allocatively efficient.
    B) both productively and allocatively efficient.
    C) productively efficient.
    D) neither productively nor allocatively efficient.

Use the following to answer questions 313-317:

Scenario: Countries A and B
Two countries, A and B, produce two goods, wheat (W) and steel (S). Each has a linear production possibility frontier in both goods. If country A spends all of its available resources to produce wheat, it can produce 500 tons of wheat and no steel. If it uses all of its resources to produce steel, it can produce 250 tons of steel and no wheat. If country B spends all of its available resources producing wheat, it can produce 400 tons of wheat, and if it spends all of its resources on the production of steel, it can produce 400 tons of steel.

313. (Scenario: Countries A and B) Look at the scenario Countries A and B. Given this information, country _____ has a comparative advantage in the production of wheat, and country _____ has a comparative advantage in the production of steel.
A) A; A
B) A; B
C) B; B
D) B; A

314. (Scenario: Countries A and B) Look at the scenario Countries A and B. If each country devotes half of its resources to the production of wheat and half to the production of steel, then their combined total production of wheat will be _____ tons and their combined total production of steel will be _____ tons.
A) 450; 325
B) 900; 650
C) 500; 250
D) 400; 400

315. (Scenario: Countries A and B) Look at the scenario Countries A and B. If country B produces 300 tons of steel, how many tons of wheat can it produce?
A) 100
B) 200
C) 300
D) 400

316. (Scenario: Countries A and B) Look at the scenario Countries A and B. If countries A and B both specialize and trade:
A) only country A will gain.
B) only country B will gain.
C) country A and country B will gain if they both specialize in the good in which they have a comparative advantage.
D) neither country will gain.

317. (Scenario: Countries A and B) Look at the scenario Countries A and B. Given this information, the country that has the absolute advantage in wheat is _____, and the country that has the absolute advantage in steel is _____.
A) A; A
B) A; B
C) B; B
D) B; A

318. Positive economics:
   A)   describes opinions and perspectives on how the world should work.
   B)   is based on opinion polls.
   C)   describes how the world does work.
   D)   is the same as normative economics.

319. Of the following statements, which reflect(s) a normative view?
   I. The United States should increase the minimum wage to $10 per hour.
   II. There is a federal minimum wage in the United States.
   III. The federal minimum wage in the United States is less than $10 per hour.
   A)   I, II, and III
   B)   None is normative.
   C)   I and II
   D)   I

Answer Key

1. A
2. A
3. A
4. D
5. D
6. C
7. A
8. C
9. D
10. D
11. A
12. B
13. C
14. B
15. D
16. A
17. C
18. C
19. B
20. D
21. A
22. A
23. C
24. B
25. A
26. B
27. C
28. B
29. C
30. C
31. C
32. A
33. A
34. D
35. B
36. B
37. B
38. D
39. A
40. A
41. C
42. B
43. D
44. D

45. B
46. A
47. B
48. A
49. C
50. B
51. B
52. C
53. A
54. B
55. A
56. B
57. C
58. D
59. A
60. B
61. D
62. A
63. A
64. B
65. C
66. D
67. C
68. C
69. B
70. D
71. A
72. C
73. B
74. A
75. D
76. C
77. A
78. A
79. B
80. D
81. D
82. A
83. A
84. A
85. B
86. A
87. C
88. D
89. C
90. A

91. A
92. C
93. B
94. A
95. A
96. D
97. B
98. A
99. D
100. C
101. C
102. C
103. B
104. B
105. D
106. C
107. C
108. A
109. A
110. B
111. B
112. D
113. B
114. C
115. B
116. B
117. C
118. A
119. A
120. B
121. A
122. A
123. D
124. A
125. D
126. B
127. D
128. A
129. D
130. D
131. C
132. D
133. B
134. A
135. A
136. D

137. B
138. B
139. B
140. D
141. A
142. D
143. A
144. D
145. B
146. D
147. D
148. D
149. C
150. B
151. C
152. D
153. B
154. D
155. B
156. A
157. A
158. C
159. D
160. B
161. A
162. B
163. A
164. C
165. A
166. B
167. A
168. B
169. B
170. B
171. B
172. A
173. B
174. D
175. B
176. D
177. A
178. B
179. B
180. A
181. C
182. C

183. B
184. B
185. A
186. D
187. C
188. C
189. B
190. C
191. C
192. C
193. C
194. B
195. D
196. D
197. C
198. C
199. D
200. A
201. C
202. C
203. A
204. C
205. B
206. D
207. A
208. C
209. B
210. D
211. A
212. C
213. B
214. D
215. A
216. D
217. C
218. B
219. D
220. B
221. C
222. A
223. A
224. C
225. D
226. A
227. A
228. D

229. B
230. C
231. B
232. A
233. C
234. A
235. A
236. A
237. C
238. D
239. B
240. D
241. A
242. A
243. B
244. B
245. C
246. D
247. B
248. B
249. A
250. B
251. B
252. B
253. A
254. B
255. A
256. A
257. B
258. A
259. B
260. A
261. B
262. B
263. B
264. A
265. B
266. B
267. B
268. B
269. A
270. B
271. B
272. B
273. A
274. A

275. B
276. B
277. A
278. A
279. B
280. B
281. A
282. B
283. A
284. A
285. B
286. A
287. In the early 2000s, a large market in mortgage-backed securities developed. Mortgage-backed securities are assets that provide income to investors as homeowners repay their mortgages. Financial experts constructed a model that underestimated the risk of loss on the mortgage-backed securities. When home prices fell in 2007, many homeowners were unable to sell their houses and pay their mortgages. Since the model had badly underestimated this risk, many investors took large losses, and the economies of most countries entered a severe recession.
288. Any point that lies within the frontier is feasible. This simply means that the economy has the resources and technology to produce this combination of goods. However, it is not efficient because more of one good could be produced without sacrificing any of the other good. In fact, more of both goods could be produced by moving to a point on the frontier.
289. As an economy produces more and more of one good, the opportunity cost begins to rise. One reason for this principle is that resources (land, labor, capital) are not equally well suited for producing all goods. Because some resources are better suited to producing good X (and ill-suited to producing good Y), they will be employed in the production of the first unit of good X. This causes a large increase in production of good X at a cost of very little lost production of good Y. However, as the production of good X increases, it is necessary to use resources that were very well-suited to producing good Y and not very productive in producing good X. The consequence is a very small increase in production of good X at a very large cost in the loss of production of good Y.
290. A politician would probably tell you that it is economic growth, but an economist might disagree. The land and building are unproductive. You might imagine that this indicates the town is operating inside the production possibility frontier. When the land is purchased and made productive again, the town moves out toward the frontier, but the frontier itself does not move outward. Simply put, this is not economic growth, but it is a more efficient use of resources.
291. Suppose a nation's factors of production (land, labor, capital, and human capital) are fixed, but its collective technology improves. This means it can produce more goods and services with a fixed quantity of economic resources. If it can produce more with the same amount of resources, the production possibility frontier must increase, or shift outward.
292. When the region increased production from zero to 100 crabs, the cost was only 50

cakes. But when Chesapeake increased crab production from 400 to 500, the cost was a much larger 250 cakes. In other words, the opportunity cost of crab production rose as more crabs were produced. The reason is that resources (labor, land, capital, and human capital) are not perfectly substituted between crab production and cake production. A unit of capital, such as a boat, is very good at producing crabs but terrible at producing cakes. A square mile of ocean is very good at producing crabs but useless at producing cakes. Because resources can't easily be switched between productive uses, opportunity cost rises.

293. Yes, Chesapeake can produce 200 crabs and 500 cakes; after all, it can produce 200 crabs and 600 cakes.   However, producing 200 crabs and 500 cakes is not efficient because if it produces only 500 cakes, there must be idle resources in the economy, and the nation is operating inside the production possibility frontier. Without losing any crab production, the nation could produce 100 more cakes and move out to the production possibility frontier.

294. Yes. The United States has a comparative advantage in the production of wheat because the opportunity cost of producing wheat is only 1 ton of aluminum, but in Germany the opportunity cost of 1 ton of wheat is 2 tons of aluminum. The United States should specialize in wheat production. Germany has a comparative advantage in the production of aluminum because the opportunity cost of producing 1 ton of aluminum is only 0.5 ton of wheat, while in the United States the opportunity cost of 1 ton of aluminum is 1 ton of wheat. Germany should therefore specialize in aluminum production. The United States would trade wheat to Germany for aluminum. By specializing and trading with each other, Germany and the United States can consume a combination of wheat and aluminum that is outside of their individual production possibility frontiers, that is, more than they would be able to produce in the absence of trade.

295. The answer lies not in absolute advantage but in comparative advantage. Any time two nations have different opportunity costs, one nation can produce a good more cheaply than the other. Each nation has a comparative advantage in something and a comparative disadvantage in something. Both the United States and the Dominican Republic can benefit from trade if each nation specializes in goods in which it has a comparative advantage and trades the goods that it produces for goods in which it does not have a comparative advantage.

296. The statement of historical fact "trade deficit of $18.4 billion" is positive. It does not imply any value judgment. The second statement, "our leaders must renegotiate . . ." is normative. The editorial board is prescribing the way the economy, in this case trade with China, should work. There is a very clear value judgment that the trade deficit is unfair to U.S. workers and we should work to remedy the deficit.

297. C
298. A
299. A
300. B
301. C
302. C
303. A
304. A
305. C

306. B
307. A
308. A
309. B
310. A
311. A
312. A
313. B
314. A
315. A
316. C
317. B
318. C
319. D

1. The point at which the axes of a graph intersect is called the:
   A) slope.
   B) origin.
   C) graph.
   D) intercept.

2. The _____ of a curve shows the point at which the curve intersects an axis.
   A) slope
   B) steepness
   C) intercept
   D) origin

3. If two variables are positively related, on a graph they will always be represented by:
   A) a line or curve that slopes downward.
   B) a straight line.
   C) a horizontal line.
   D) a line or curve that slopes upward.

4. If two variables are negatively related, they will always be represented by:
   A) a line or curve that slopes downward.
   B) a straight line.
   C) a horizontal line.
   D) a line or curve that slopes upward.

5. If two variables are negatively related:
   A) as one goes up in value, the other must go up in value, too.
   B) as one goes up in value, the other must go down in value.
   C) there can never be a trade-off between the two.
   D) one variable is always the reciprocal of the other.

6. If two variables are positively related:
   A) as one goes up in value, the other must go up in value, too.
   B) as one goes up in value, the other must go down in value.
   C) there is always a trade-off between the two.
   D) one variable is always the reciprocal of the other.

7. The relation between two variables that move in the same direction is said to be:
   A) independent.
   B) neutral.
   C) positive.
   D) indirect.

8. The relation between two variables that move in opposite directions is said to be:
   A) independent.
   B) positive.
   C) direct.
   D) negative.

9. On a graph representing two variables:
   A) a positive slope of a curve means the variables are negatively related.
   B) a negative slope of a curve means the two variables are positively related.
   C) a line that is horizontal has a zero slope.
   D) a line that is vertical has a zero slope.

Use the following to answer questions 10-12:

Figure: Cold Drinks Sold and Temperature
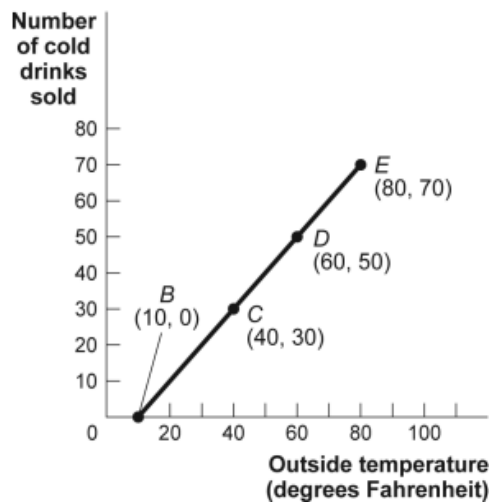
10. (Figure: Cold Drinks Sold and Temperature) Look at the figure Cold Drinks Sold and Temperature. If we move from point C to point E in the figure, the outside temperature has _____ degrees and the number of cold drinks sold has _____.
    A) decreased by 30; decreased by 30
    B) increased by 20; increased by 20
    C) increased by 30; increased by 30
    D) increased by 40; increased by 40

11. (Figure: Cold Drinks Sold and Temperature) Look at the figure Cold Drinks Sold and Temperature. If we move from point B to point C in the figure, the outside temperature has _____ degrees and the number of cold drinks sold has _____.
    A) decreased by 30; decreased by 30
    B) increased by 20; increased by 20
    C) increased by 30; increased by 30
    D) increased by 40; increased by 40

12. (Figure: Cold Drinks Sold and Temperature) Look at the figure Cold Drinks Sold and Temperature. If we move from point C to point D in the figure, the outside temperature has _____ degrees and the number of cold drinks sold has _____.
    A) decreased by 30; decreased by 30
    B) increased by 20; increased by 20
    C) increased by 30; increased by 30
    D) increased by 40; increased by 40


Use the following to answer questions 13-15:

Figure: Hot Drinks Sold and Temperature

Number of hot drinks sold

J (0, 70)
K (20, 50)
L (40, 30)
M (70, 0)

Outside temperature (degrees Fahrenheit)
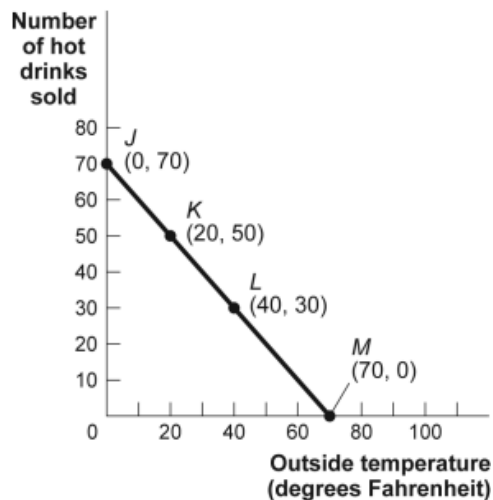
13. (Figure: Hot Drinks Sold and Temperature) Look at the figure Hot Drinks Sold and Temperature. If we move from point *K* to point *L* in the figure, the outside temperature has _____ degrees and the number of hot drinks sold has _____.
   A) decreased by 30; increased by 30
   B) increased by 20; decreased by 20
   C) increased by 30; decreased by 30
   D) increased by 40; decreased by 40

14. (Figure: Hot Drinks Sold and Temperature) Look at the figure Hot Drinks Sold and Temperature. If we move from point *J* to point *L* in the figure, the outside temperature has _____ degrees and the number of hot drinks sold has _____.
   A) decreased by 30; increased by 30
   B) increased by 20; decreased by 20
   C) increased by 30; decreased by 30
   D) increased by 40; decreased by 40

15. (Figure: Hot Drinks Sold and Temperature) Look at the figure Hot Drinks Sold and Temperature. If we move from point *L* to point *M* in the figure, the outside temperature has _____ degrees and the number of hot drinks sold has _____.
   A) decreased by 30; increased by 30
   B) increased by 20; decreased by 20
   C) increased by 30; decreased by 30
   D) increased by 40; decreased by 40

Use the following to answer questions 16-17:

Figure: Good *X* and Good *Y*
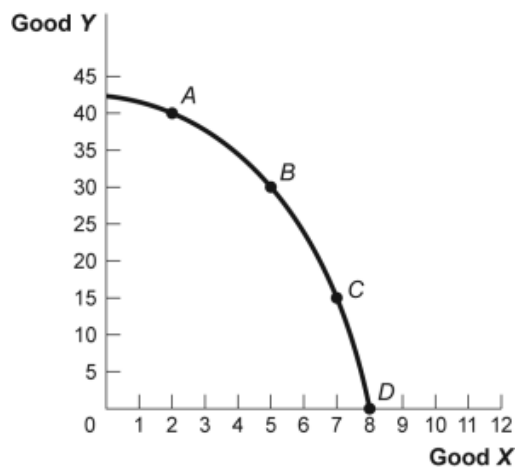
16. (Figure: Good *X* and Good *Y*) Look at the figure Good *X* and Good *Y*. If we move from point *B* to point *C* in the figure, the *x*-variable has _____ units and the *y*-variable has _____ units.
    A) decreased by 2; increased by 15
    B) increased by 2; decreased by 15
    C) decreased by 15; increased by 2
    D) increased by 15; decreased by 2

17. (Figure: Good *X* and Good *Y*) Look at the figure Good *X* and Good *Y*. If we move from point *C* to point *B* in the figure, the *x*-variable has _____ units and the *y*-variable has _____ units.
    A) decreased by 2; increased by 15
    B) increased by 2; decreased by 15
    C) decreased by 15; increased by 2
    D) increased by 15; decreased by 2

18. In the graph of a curve, the vertical intercept is:
    A) the value of the *y*-variable when the value of the *x*-variable is equal to zero.
    B) the change in the *y*-variable between two points divided by the change in the *x*-variable between those same two points.
    C) the value of the *y*-variable when the value of the slope is equal to zero.
    D) the value of the *x*-variable when the value of the *y*-variable is equal to zero.

Use the following to answer question 19:

Table: Hours Studied and Quiz Score

Hours Studied for Economics Quiz	Score on the Economics Quiz (maximum 10 points)
0	2
1	4
2	6
3	8
4	10

19. (Table: Hours Studied and Quiz Score) Look at the table Hours Studied and Quiz Score. The table shows data for students in an economics class. If we were to graph these data and draw a line through the points, we would choose _____ to be the independent variable; the vertical intercept of our line would be _____; and the slope of our line would be _____.
   A)   quiz score; y = 2; –2
   B)   quiz score; x = 0; –2
   C)   hours studied; y = 0; +2
   D)   hours studied; y = 2; +2

Use the following to answer questions 20-21:

Figure: Demand and Supply of Shirts
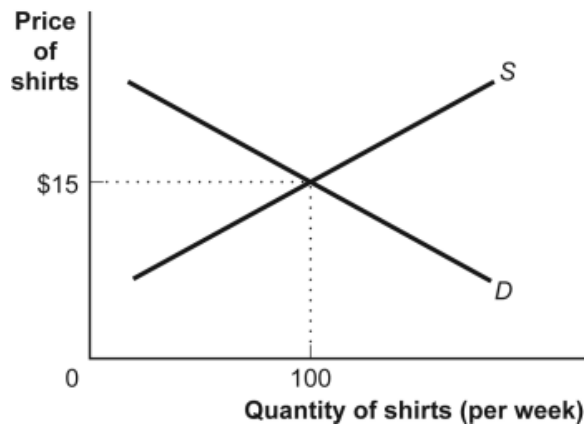
20. (Figure: Demand and Supply of Shirts) Look at the figure Demand and Supply of Shirts. In the graph, if the line labeled *D* shows how many shirts per week will be demanded at various prices, then it is clear that as the price of shirts falls:
   A)   fewer shirts will be demanded.
   B)   more shirts will be demanded.
   C)   the same quantity of shirts will be demanded.
   D)   it is unclear what will happen to the demand for shirts.

21. (Figure: Demand and Supply of Shirts) Look at the figure Demand and Supply of Shirts. If the line labeled *S* shows how many shirts per week will be offered for sale at various prices, then it is clear that for supply, quantity and price are:
   A)   the same.
   B)   positively related.
   C)   negatively related.
   D)   not related.

Use the following to answer questions 22-23:

Table: Wages and Hours Willing to Work

Point	Wage	Hours Worked
A	6	0
B	8	5
C	12	20
D	20	40
E	30	45

22. (Table: Wages and Hours Willing to Work) Look at the table Wages and Hours Willing to Work, which shows data on wage per hour and the number of hours someone is willing to work. Which variable would economists put on the vertical axis?
    A) Either variable
    B) the wage, because even though it is the independent variable, it is a price
    C) hours willing to work, because it is the dependent variable
    D) neither variable

23. (Table: Wages and Hours Willing to Work) Look at the table Wages and Hours Willing to Work. If it was graphed, the relationship between wage per hour and hours willing to work would be:
    A) linear.
    B) coordinated.
    C) nonlinear.
   D) negatively sloped.

Use the following to answer questions 24-25:

Figure: Illustrating Slope
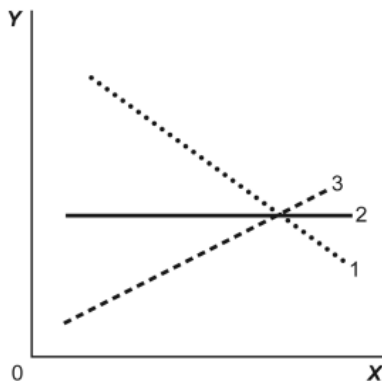
24. (Figure: Illustrating Slope) Look at the figure Illustrating Slope. In the graph, line 1 depicts *X* and *Y* to be:
   A) positively related.
   B) nonlinearly related.
   C) unrelated.
   D) negatively related.

25. (Figure: Illustrating Slope) Look at the figure Illustrating Slope. In the graph, line 3 depicts *X* and *Y* to be:
   A) positively related.
   B) unrelated.
   C) negatively related.
   D) both constants.

Use the following to answer questions 26-27:

Figure: Demand and Supply
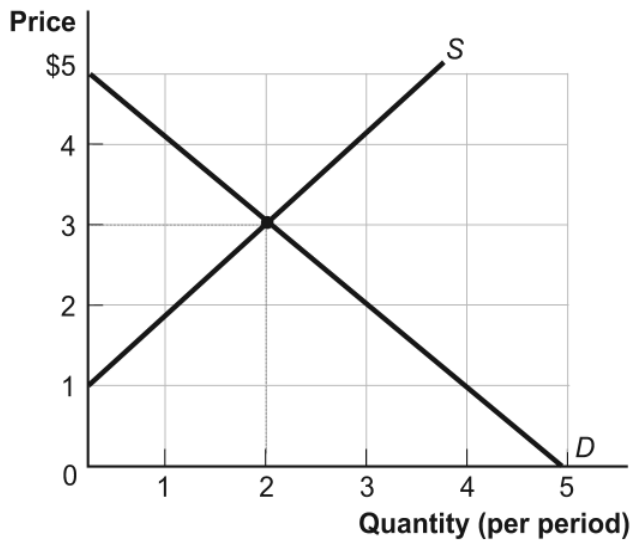
26. (Figure: Demand and Supply) Look at the figure Demand and Supply. The curve labeled *D* indicates that a price of $2 is related to a quantity of:
   A) 0.
   B) 1.
   C) 2.
   D) 3.

27. (Figure: Demand and Supply) Look at the figure Demand and Supply. The curve labeled *S* indicates that a price of $2 is related to a quantity of:
   A)   0.
   B)   1.
   C)   2.
   D)   3.

Use the following to answer question 28:

Figure: Slope
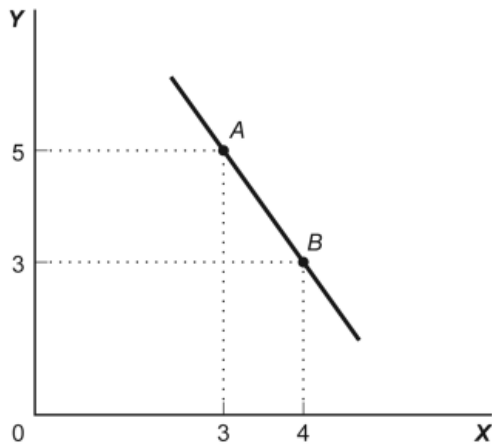
28. (Figure: Slope) Look at the figure Slope. This graph depicts _____ relation between *X* and *Y*.
   A)   a positive
   B)   a negative
   C)   an independent
   D)   no

Use the following to answer questions 29-30:

Table: Wages and Hours Worked

Point	Wage	Hours Worked
A	6	0
B	8	5
C	12	20
D	20	40
E	30	45

29. (Table: Wages and Hours Worked) Look at the table Wages and Hours Worked. Graphing the relation with wages on the vertical axis and hours worked on the horizontal axis, the slope between point *D* and point *E* is:
    A) 0.5.
    B) 5.
    C) 45.
    D) 2.

30. (Table: Wages and Hours Worked) Look at the table Wages and Hours Worked. Graphing the relation with wages on the vertical axis and hours worked on the horizontal axis, the slope between point *A* and point *B* is:
    A) 2.5.
    B) 5.
    C) 2.
    D) 2/5.

31. Two points on a nonlinear curve have coordinates given by (5, 15) and (17, 13). The average slope of the curve between these points is:
    A) –1/6.
    B) –6.
    C) 1/4.
    D) 2.5.

32. If two points on a graph are (0, 8) and (12,15):
    A) *X* is 0 when *Y* is 12.
    B) *X* and *Y* have a positive relation.
    C) the horizontal intercept is given by the point (0, 8).
    D) the slope of a line connecting the two points is negative.
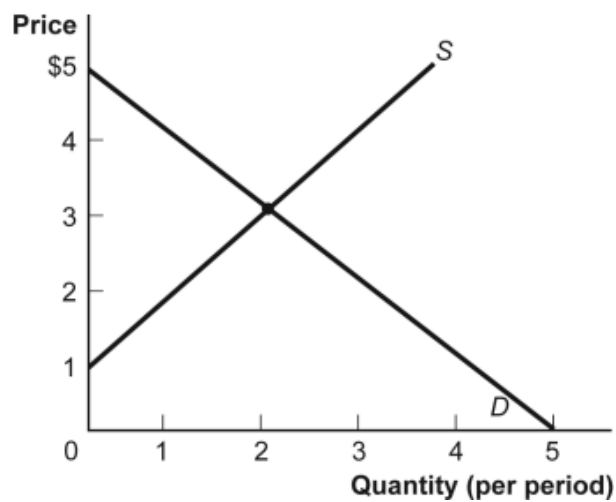
Use the following to answer question 33:

Figure: Illustrating Slope
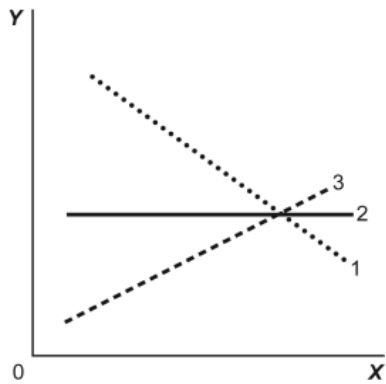
33. (Figure: Illustrating Slope) Look at the figure Illustrating Slope. In the graph, line 2 has a slope of:
   A) +1.
   B) 0.
   C) –1.
   D) infinity.

Use the following to answer questions 34-35:

Figure: Demand and Supply

34. (Figure: Demand and Supply) Look at the figure Demand and Supply. The slope of the curve labeled *D* is:
    A) −1.
    B) 0.
    C) 1.
    D) 3.

35. (Figure: Demand and Supply) Look at the figure Demand and Supply. The slope of the curve labeled *S* is:
    A) −1.
    B) 0.
    C) 1.
    D) 3.

36. The slope of a straight line is the ratio of the:
    A) vertical change to the horizontal change.
    B) horizontal change to the vertical change.
    C) run over the rise.
    D) vertical change to the horizontal change, and it must be positive.

Use the following to answer questions 37-38:

Figure: Slope
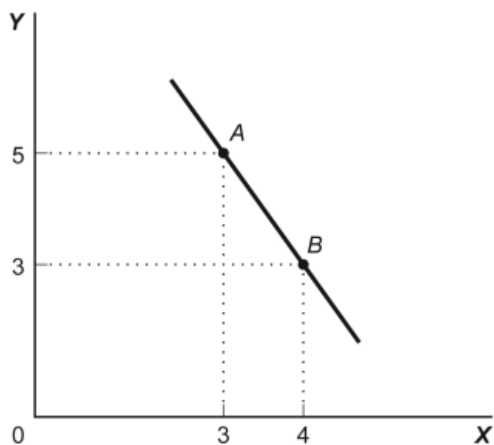
37. (Figure: Slope) Look at the figure Slope. In the graph, the slope of the line between points *A* and *B* is:
   A)   +8.
   B)   –8.
   C)   –2.
   D)   +2.

38. (Figure: Slope) Look at the figure Slope. The slope of the line in the graph can be calculated by:
   A)   dividing the horizontal change by the vertical change.
   B)   dividing the vertical change by the horizontal change.
   C)   subtracting the sum of the *Y* values from the sum of the *X* values.
   D)   adding the sum of the *X* values to the sum of the *Y* values.

39. The ratio of the change in the variable on the vertical axis to the change in the variable on the horizontal axis, measured between two points on the curve, is the:
   A)   axis.
   B)   slope.
   C)   dependent variable.
   D)   independent variable.

Use the following to answer questions 40-43:

**Table: Price, Quantity Demanded, and Quantity Supplied**

Price	1	2	3	4	5
Quantity demanded	16	8	4	2	1
Quantity supplied	3	5	7	9	11

40. (Table: Price, Quantity Demanded, and Quantity Supplied) Look at the table Price, Quantity Demanded, and Quantity Supplied. A straight line represents the relation between:
   A)   price and quantity demanded.
   B)   price and quantity supplied.
   C)   price and quantity demanded minus quantity supplied.
   D)   quantity demanded and quantity supplied.

41. (Table: Price, Quantity Demanded, and Quantity Supplied) Look at the table Price, Quantity Demanded, and Quantity Supplied. The data in the figure suggest a nonlinear relation between:
    A) price and quantity demanded.
    B) price and quantity supplied.
    C) quantity demanded and quantity supplied.
    D) The table does not show a nonlinear relation.

42. (Table: Price, Quantity Demanded, and Quantity Supplied) Look at the table Price, Quantity Demanded, and Quantity Supplied. The slope of the line representing the relation between price on the vertical axis and quantity supplied on the horizontal axis is:
    A) equal to 1/2.
    B) equal to 1.
    C) equal to 2.
    D) different at different points on the line.

43. (Table: Price, Quantity Demanded, and Quantity Supplied) Look at the table Price, Quantity Demanded, and Quantity Supplied. The slope of the line representing the relationship between price on the vertical axis and quantity demanded on the horizontal axis is:
    A) equal to 1/2.
    B) equal to 1.
    C) equal to 2.
    D) different at different points on the line.
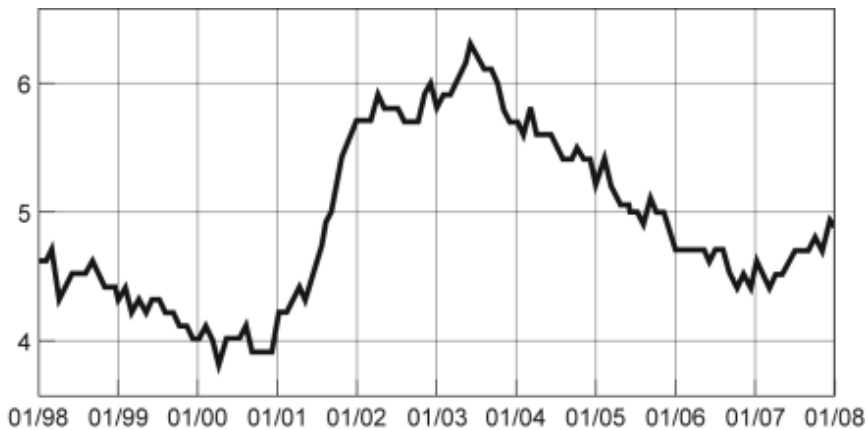
Use the following to answer question 44:

Figure: Y = f(X)
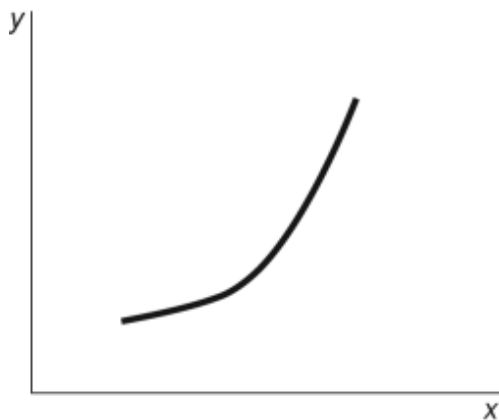
44. (Figure: Y = f(X) Look at the figure Y = f(X). The slope of the relation between *x* and *y*:
   A) is positive and constant.
   B) is negative and getting steeper.
   C) is positive and getting steeper.
   D) is positive and getting flatter.

Use the following to answer questions 45-49:

Figure: Seasonally Adjusted Unemployment Rate

45. (Figure: Seasonally Adjusted Unemployment Rate) Look at the figure Seasonally Adjusted Unemployment Rate. The distance between each labeled point on the horizontal axis is one year. What is the approximate slope of the graph between 1/2004 and 1/2006?
   A) 1/2
   B) 1
   C) –1/2
   D) –2

46. (Figure: Seasonally Adjusted Unemployment Rate) Look at the figure Seasonally Adjusted Unemployment Rate. The distance between each labeled point on the horizontal axis is one year. What is the approximate slope of the graph between 1/2001 and 1/2003?
   A) 2
   B) 1
   C) –1
   D) –2

47. (Figure: Seasonally Adjusted Unemployment Rate) Look at the figure Seasonally Adjusted Unemployment Rate. The distance between each labeled point on the horizontal axis is one year. Unemployment was _____ between 1/2001 and 1/2002 and _____ between 1/1999 and 1/2000.
   A)   increasing; decreasing
   B)   increasing; increasing
   C)   decreasing; increasing
   D)   decreasing; decreasing

48. (Figure: Seasonally Adjusted Unemployment Rate) Look at the figure Seasonally Adjusted Unemployment Rate. The distance between each labeled point on the horizontal axis is one year. Unemployment was _____ between 1/2001 and 1/2003 and _____ between 1/2007 and 1/2008.
   A)   increasing; decreasing
   B)   increasing; increasing
   C)   decreasing; increasing
   D)   decreasing; decreasing

49. (Figure: Seasonally Adjusted Unemployment Rate) Look at the figure Seasonally Adjusted Unemployment Rate. The distance between each labeled point on the horizontal axis is one year. Using this graph, the unemployment rate was at a minimum in _____ and a maximum in _____.
   A)   2003; 2000
   B)   2007; 2001
   C)   2003; 1999
   D)   2000; 2003

Use the following to answer questions 50-51:

Figure: Labor Force Participation Rate
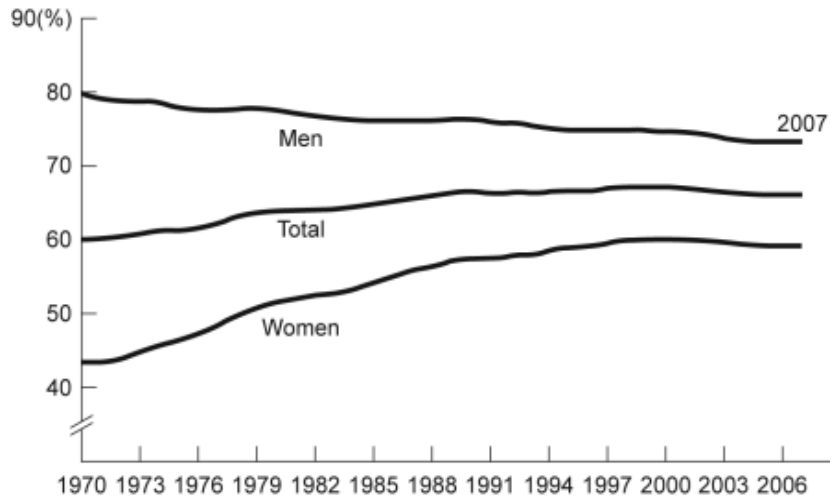
50. (Figure: Labor Force Participation Rate) Look at the figure Labor Force Participation Rate. Using the figure, the labor force participation rate for women was _____ during 1970–1985 and _____ during 1998–2006.
    A)   increasing; slightly decreasing
    B)   increasing; increasing
    C)   decreasing; increasing
    D)   decreasing; constant

51. (Figure: Labor Force Participation Rate) Look at the figure Labor Force Participation Rate. During 1970–1985, the labor force participation rate was _____ for women and _____ for men.
    A)   increasing; decreasing
    B)   increasing; increasing
    C)   decreasing; increasing
    D)   decreasing; decreasing

52. If a supply curve is represented by the equation $Q = 10 + 2P$, what is its slope?
    A)   1/2
    B)   1
    C)   2
    D)   5

53. Your boss asks you to graph company profits for the past 10 years. The best way to show this information is with:
A) a scatter diagram.
B) a pie chart.
C) a time-series graph.
D) an independent graph.

54. The owner of the Dismal Philosopher, one of five bookstores on College Road, asks you to make a graph showing each College Road bookstore's share of all five stores' book purchases. The best way to show this information is with:
A) a scatter diagram.
B) a pie chart.
C) a time-series graph.
D) an independent graph.

55. Professor Macro wants to use a numerical graph to show the percentage of government spending accounted for by its various components. Which of the following graphs is most suitable for this purpose?
A) bar graph
B) pie chart
C) time-series graph
D) scatter diagram

56. A positive relationship between swimsuits purchased and ice cream purchased could be the result of:
A) reverse causality.
B) a magnified scale on the swimsuit axis.
C) a truncation of the ice cream axis.
D) an omitted variable, such as the external temperature.

57. Taylor sees a bar graph showing the average weight of adult males over the past 200 years and concludes that men get more obese over time. Taylor's conclusion may be wrong, since she did not consider:
A) the features of construction.
B) omitted variables.
C) reverse causality.
D) tangent lines.

Use the following to answer questions 58-61:

Figure: Unemployment Rate over Time


Source: Bureau of Labor Statistics.

58. (Figure: Unemployment Rate over Time) Look at the figure Unemployment Rate over Time. In the time-series graph, as we move from the beginning of 2001 to the beginning of 2003, we see that the unemployment rate has _____ from approximately _____ to approximately _____.
    A) decreased; 5%; 4%
    B) increased; 5.3%; 7.3%
    C) decreased; 7.7%; 5.5%
    D) increased; 4%; 6%

59. (Figure: Unemployment Rate over Time) Look at the figure Unemployment Rate over Time. In the time-series graph, as we move from 1993 to 1995, we see that the unemployment rate has _____ from approximately _____ to approximately _____.
    A) decreased; 5%; 4%
    B) increased; 5.3%; 7.3%
    C) decreased; 7%; 5.5%
    D) increased; 4%; 6.3%

60. (Figure: Unemployment Rate over Time) Look at the figure Unemployment Rate over Time. In the time-series graph, as we move from 1991 to 1993, we see that the unemployment rate has _____ from approximately _____ to approximately _____.
    A) decreased; 5%; 4%
    B) increased; 5.5%; 7%
    C) decreased; 7.8%; 5%
    D) increased; 4%; 6.3%

61. (Figure: Unemployment Rate over Time) Look at the figure Unemployment Rate over Time. In the time-series graph, as we move from 1997 to 2001, we see that the unemployment rate has _____ from approximately _____ to approximately _____.
    A) decreased; 5%; 4%
    B) increased; 5.3%; 7.3%
    C) decreased; 7.8%; 5.5%
    D) increased; 4%; 6.3%

62. A _____ graph shows how the value of one or more variables has changed over some period.
    A) linear
    B) time-series
    C) nonlinear
    D) periodic table

63. The scaling of the axes of a time-series graph:
    A) is not a critical element in presenting the intended information.
    B) may change the interpretation of the data.
    C) generally places the time period on the vertical axis.
    D) generally puts values of a variable, such as the unemployment rate, on the vertical axis.

64. In a time-series graph, large changes can be made to appear trivial by:
    A) changing the scale of the axes.
    B) labeling more intervals.
    C) defining the dependent variable.
    D) defining the independent variable.

65. A scatter diagram shows:
    A) how far apart dependent variables are.
    B) individual points of data showing both variable values.
    C) the slope of a line.
    D) the intercept of a curve.

66. The fact that two variables always move together over time:
    A) does not prove that one of the variables is dependent on the other.
    B) proves that one of the variables is dependent on the other.
    C) proves that changes in one variable cause changes in the other.
    D) is often illustrated or depicted using either a pie chart or a bar chart.

67. A pie chart is used to depict information about:
    A) the relative shares of categories of data.
    B) the changes of a particular variable over time.
    C) positive, not negative, relationships among variables.
    D) the changes of a particular variable over time and positive relationships.

68. A bar graph:
    A) shows the relative amounts attributable to different categories.
    B) may be shown by vertical bars to illustrate the comparative sizes of different observations.
    C) may be shown by horizontal bars to illustrate the comparative sizes of different observations.
    D) A, B, and C.

69. In looking at a chart of the positive relationship between police officers and crime, the mayor remarks that more police officers cause more crime. The mayor may be wrong because she did not consider:
    A) the features of construction.
    B) omitted variables.
    C) reverse causality.
    D) tangent lines.

Use the following to answer questions 70-71:

Figure: Consumption of Pizza and Tacos
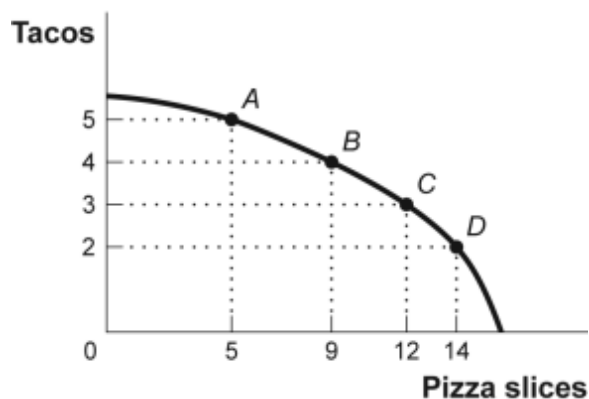
70. (Figure: Consumption of Pizza and Tacos) Look at the figure Consumption of Pizza and Tacos. The figure shows the number of tacos and pizza slices Matt can eat in a day. The relation is nonlinear, and there is a negative relation between the number of tacos and pizza slices that Matt can eat in a day.
    A) True
    B) False

71. (Figure: Consumption of Pizza and Tacos) Look at the figure Consumption of Pizza and Tacos. The figure shows the number of tacos and pizza slices Matt can eat in a day. The best estimate of the slope between point *A* and point *B* is –4.
    A) True
    B) False

72. A linear curve has the same slope between every pair of points.
    A) True
    B) False

73. The owner of the Dismal Philosopher, one of the five bookstores on College Road, asks you to make a graph showing each College Road bookstore's share of all five stores' book purchases. A good way to show this information is with a pie chart.
    A) True
    B) False

74. A town hires more police officers and then has an increase in arrests. One can conclude that the larger police force caused more crime.
    A) True
    B) False

75. An economist wishes to build a model to explain the relationship between the number of diamonds purchased every year and the average income of consumers in that year. Which variable should be the dependent variable and which should be the independent variable? All else equal, do you expect this relationship to be positive or negative? Explain.

Answer Key

1. B
2. C
3. D
4. A
5. B
6. A
7. C
8. D
9. C
10. D
11. C
12. B
13. B
14. D
15. C
16. B
17. A
18. A
19. D
20. B
21. B
22. B
23. C
24. D
25. A
26. D
27. B
28. B
29. D
30. D
31. A
32. B
33. B
34. A
35. C
36. A
37. C
38. B
39. B
40. B
41. A
42. A
43. D
44. C

45. C
46. B
47. A
48. B
49. D
50. A
51. A
52. A
53. C
54. B
55. B
56. D
57. B
58. D
59. C
60. B
61. A
62. B
63. B
64. A
65. B
66. A
67. A
68. D
69. C
70. A
71. B
72. A
73. A
74. B
75. The number of diamonds purchased should be the dependent variable and the average income should be the independent variable. It is much more reasonable to believe that income causes diamond purchases than the other way around. One would expect a positive relationship. As average income rises, all else equal, diamonds become more affordable to more people, and so more diamonds will be purchased.