1) In a world characterized by scarcity
   A) all goods are free.
   B) individuals need not work to obtain goods.
   C) opportunity cost is zero.
   D) we are not limited by time.
   E) people must make choices among alternatives.

2) Which of the following is the best definition of economics?
   A) The study of how consumers spend their income.
   B) The study of how a provincial government allocates tax dollars.
   C) The study of how producers decide what inputs to hire and what outputs to produce.
   D) The study of how individuals, businesses, governments, and entire societies make choices as they cope with scarcity and the incentives that influence and reconcile those choices.
   E) The study of how consumers and producers meet each other at the market.

3) Which of the following is a microeconomic topic?
   A) the effect of the government budget deficit on inflation
   B) the reasons why the labour force in a country decreases
   C) the reasons why the average price level in a country falls
   D) the reasons why a consumer buys less honey
   E) the cause of increasing unemployment

4) The study of how wages are set for New Brunswick teachers is classified as
   A) economics of private interest.
   B) normative economics.
   C) a microeconomic topic.
   D) a macroeconomic topic.
   E) economics of social interest.

5) Which of the following newspaper headlines concerns a macroeconomic issue?
   A) Why do grain producers purchase less pesticides?
   B) Why are people buying more SUVs and fewer minivans?
   C) How would a tax on e-commerce affect chapters.indigo.ca?
   D) How would an unexpected freeze in Oxford, Nova Scotia change the price of blueberries in the Maritimes?
   E) Why is Japan's economy stagnant?

6) The branch of economics that studies the choices of individuals and businesses is
   A) macroeconomics.
   B) microeconomics.
   C) positive economics.
   D) social economics.
   E) normative economics.

7) Each of the following would be considered a macroeconomic topic except
   A) the selection of production techniques.
   B) the cause of recessions.
   C) the effect of the government budget deficit on inflation.
   D) the reasons for a decrease in the unemployment rate.
   E) the determination of aggregate income.
8) Complete the following sentence. Macroeconomics
   A) deals mainly with the economic behaviour of households.
   B) is the study of the national economy and the global economy.
   C) is the only part of economics to deal with government decisions.
   D) is primarily concerned with the behaviour of the stock market.
   E) is primarily concerned with the operation of individual markets in the economy.

9) The determination of prices in individual markets is primarily a concern of
   A) microeconomics.
   B) positive economics.
   C) descriptive economics.
   D) negative economics.
   E) macroeconomics.

10) Which one of the following topics does macroeconomics study?
    A) effects of taxes on the price of gasoline
    B) effects of government safety regulations on the price of cars
    C) prices of individual goods and services
    D) decisions of individual firms
    E) the performance of the global economy

11) Which one of the following topics does microeconomics study?
    A) effect of the government budget deficit on employment
    B) reasons for a fall in the price of orange juice
    C) the effect of a rise in the Canadian dollar on Canada's exports
    D) effect of interest rates on national economic growth
    E) determination of total production in a country

12) Complete the following sentence. Microeconomics is
    A) the branch of economics that studies the choices of individuals and businesses.
    B) not concerned with factors of production.
    C) concerned with normative issues only.
    D) concerned with the size of the total amount of income earned by all households in an economy.
    E) concerned exclusively with the role of the government in the economy.

13) Which of the following would be considered a microeconomic topic?
    A) the cause of unemployment in the economy
    B) the determination of aggregate income
    C) the effect of the government budget deficit on inflation
    D) the severity of a recession
    E) the study of how wages are set for mine workers

14) The branch of economics that studies the national economy and the global economy is
    A) Keynesian economics.
    B) macroeconomics.
    C) normative economics.
    D) microeconomics.
    E) positive economics.

15) The fact that human wants cannot be fully satisfied with available resources is called the problem of
    A) marginal cost.
    B) normative economics.
    C) scarcity.
    D) opportunity cost.
    E) the big tradeoff.
16) The problem of scarcity exists
   A) in all economies.
   B) only when people are unemployed.
   C) now but will be eliminated with economic growth.
   D) only in economies that lack incentives.
   E) only in economies that have incentives.

17) The inescapable economic fact is that
   A) capitalists are always exploiting the workers.
   B) there are unlimited wants and limited resources.
   C) capitalists and unions cannot work together.
   D) there are unlimited resources, and we just have to figure out how to allocate them.
   E) unions are always exploiting firms.

18) The two big economic questions
   A) do not arise from scarcity.
   B) involve self-interest only.
   C) involve neither self-interest nor social interest.
   D) involve both self-interest and social interest.
   E) involve only social interest.

19) The two big economic questions
   A) have nothing to do with goods and services.
   B) have nothing to do with the way goods and services are produced.
   C) do not consider for whom goods and services are produced.
   D) are "what goods and services are produced?" and "how are goods and services produced?"
   E) summarize the scope of economics.

20) The two big economic questions include all of the following except
   A) why to produce.
   B) for whom to produce.
   C) what to produce.
   D) can choices made in the pursuit of self-interest also promote the social interest.
   E) how to produce.

21) When a firm decides to produce more hybrid cars and fewer gas guzzlers, it is answering the ______ question.
   A) "what"
   B) "how"
   C) "who"
   D) "when"
   E) "where"

22) When a textile firm decides to produce more silk fabric and less cotton fabric, it is answering the ______ question.
   A) "what"
   B) "who"
   C) "when"
   D) "where"
   E) "how"
23) When a farmer decides to harvest tomatoes using machines instead of migrant workers, the farmer is answering the _______ question.
   A) "where"
   B) "when"
   C) "what"
   D) "who"
   E) "how"

24) Sixty-five years ago, 20 percent of Canadians produced services, 60 percent were employed in mining, construction and manufacturing, and almost 20 percent worked on farms. Today, the percentage in service jobs is
   A) 50 percent.
   B) close to zero.
   C) 25 percent.
   D) 20 percent.
   E) 75 percent.

25) Complete the following sentence. Capital is
   A) tools, instruments, machines, buildings, and other constructions that businesses use to produce goods and services
   B) stocks and bonds.
   C) "gifts of nature."
   D) money in the bank.
   E) land.

26) When a firm decides to produce computers using robots instead of people, it is answering the _______ question.
   A) "who"
   B) "where"
   C) "how"
   D) "what"
   E) "when"

27) To meet increased demand for its good, a firm decides to hire a few high-skilled workers, rather than hire many low-skilled workers. The firm is answering the _______ question.
   A) "who"
   B) "how"
   C) "when"
   D) "what"
   E) "where"

28) An art museum decides to offer tours by having visitors listen to CDs rather than have tour guides. The museum is answering the _______ question.
   A) "who"
   B) "where"
   C) "how"
   D) "what"
   E) "when"

29) To earn income, people sell the services of the factors of production they own. Land earns _______; labour earns _______; capital earns _______ and entrepreneurship earns _______.
   A) wages; interest; profit; rent
   B) interest; profit; rent; wages
   C) profit; wages; rent; interest
   D) rent; wages; interest; profit
   E) profit; interest; wages; rent
30) The fact that some people can afford to live in beautiful homes while others are homeless is an example of an economy facing the ______ question.
   A) "what"
   B) "for whom"
   C) "where"
   D) "how"
   E) "when"

31) The fact that a hockey star earns $3 million a year while a teacher earns $35,000 annually is an example of an economy facing the ______ question.
   A) "for whom"
   B) "what"
   C) "how"
   D) "where"
   E) "when"

32) Complete the following sentence. Entrepreneurship is
   A) defined as money.
   B) categorized as capital.
   C) traded on the stock market.
   D) the human resource that organizes labour, land and capital.
   E) categorized as the factor of production labour.

33) Sue, who has a law degree, earns $200,000 a year, while Chris, a high-school dropout, earns $5.00 an hour. This is an example of an economy facing the ______ question.
   A) "when"
   B) "what"
   C) "where"
   D) "for whom"
   E) "how"

34) A star athlete can afford a garage full of exotic cars while other people can only afford to take a city bus for transportation. This is an example of an economy facing the ______ question.
   A) "when"
   B) "how"
   C) "what"
   D) "where"
   E) "for whom"

35) Complete the following sentence. Financial capital is
   A) the tools and machines that are used to produce goods and services.
   B) land.
   C) money, stocks, and bonds.
   D) one of the "gifts of nature."
   E) used in the production of goods and services.

36) Which factor of production earns the most income?
   A) land
   B) capital
   C) entrepreneurship
   D) labour
   E) the stock market
37) What choices are best for the entire society?
A) regional interest choices  
B) self-interest choices  
C) social interest choices  
D) minority group choices  
E) ethnic group choices

38) Self-interest choices are
A) never in the social interest.  
B) those choices which are best for the person making them.  
C) choices that are agreed to by majority vote.  
D) those choices that are best for all residents of a region.  
E) always in the social interest.

39) The expansion of international trade, borrowing and lending, and investment is
A) industrial revolution.  
B) globalization.  
C) antiglobalization.  
D) the big tradeoff.  
E) corporate revolution.

40) What decades are known as the "Information Revolution"?
A) the 1970s and 1980s  
B) the 1960s and 1970s  
C) the 1990s and 2000s  
D) the 1930s and 1940s  
E) the 1950s and 1960s

41) Which of the following relates factors of production to the sources of income correctly?
A) Land earns rent.  
B) Entrepreneurship earns rent.  
C) Capital earns profit.  
D) Labour earns rent.  
E) Land earns interest.

42) Which statement about incomes earned by factors of production is false?
A) Land earns rent.  
B) Entrepreneurship earns profit.  
C) Labour earns wages.  
D) Capital earns profit.  
E) Natural resources earn rent.

43) A tractor is an example of which of the following factors of production?
A) energy  
B) land  
C) entrepreneurship  
D) labour  
E) capital

44) Which one of the following is an example of capital as a factor of production?
A) a Bell Canada bond  
B) a high school teacher  
C) an automobile factory owned by Ford  
D) money held by Tim Hortons  
E) natural gas
45) Which of the following would an economist classify as capital?
   A) a deposit of silver
   B) entrepreneurship
   C) land
   D) a computer
   E) natural resources

46) Which one of the following is labour?
   A) a carpenter's hammer
   B) a bread-slicing machine
   C) a shoe factory
   D) money
   E) a singer’s voice

47) Which one of the following would economists classify as land?
   A) an elementary school in Nova Scotia
   B) an automotive plant in British Columbia
   C) rich agricultural soil in Saskatchewan
   D) an oil rig in the Atlantic Ocean
   E) automobiles parked in a parking lot in Manitoba

48) Which one of the following is an example of land?
   A) a computer program
   B) Lake Erie
   C) Bono’s singing voice
   D) a road
   E) a dam

49) Which one of the following is an example of a factor of production?
   A) an IBM stock certificate
   B) the skills of a welder
   C) a computer game
   D) a donut
   E) an insurance policy

50) Which one of the following is an example of capital?
   A) a carpenter
   B) a university professor
   C) a bread-slicing machine
   D) money
   E) pasture

51) The creation of a successful movie illustrates choices made in self-interest that also achieve the social interest if ________.
   A) the movie is produced at the lowest possible cost, and the movie gives the greatest possible benefit
   B) the movie has a higher attendance than any other movie produced that year
   C) the movie is produced in a country where workers typically earn less than workers in North America
   D) the movie addresses a social issue
   E) the movie is an Academy award winner because an Academy award winning movie is most popular with the movie-going public
52) The creation of a successful movie can influence the main questions that economics seeks to answer. Choose the statement that is false.

A) The movie influences the *when* question because movie crews work on many different films and must be available for the entire production.
B) The movie influences the *what* question because it can lead to spinoff goods or a new movie genre, which can result in the production of similar films.
C) The movie influences the *for whom* question because the people who earn higher incomes through the movie production buy more goods and services.
D) The movie influences the *how* question because it can use unknown actors or Academy Award winners.
E) The movie influences the *how* question because the movie can create new production techniques, which can be used in subsequent films.

53) Opportunity cost is

A) your value of leisure.
B) the marginal benefit from an activity.
C) the highest-valued alternative that we give up to get something.
D) the money you spend on food, shelter, and clothing.
E) the value of your favourite activity.

54) During the next hour John can choose one of the following three activities: playing basketball, watching television, or reading a book. The opportunity cost of reading a book

A) is the value of playing basketball and the value of watching television.
B) depends on how much the book cost when it was purchased.
C) is the value of watching television if John prefers playing basketball to watching television.
D) depends on how much John enjoys the book.
E) is the value of playing basketball if John prefers that to watching television.

55) Sally has to decide whether to study for her economics test or her accounting test. If she chooses to study for accounting, her opportunity cost of studying accounting is

A) the future lost wages that will occur if she fails her accounting exam.
B) less than the value of studying economics.
C) studying economics.
D) not comparable to the value of studying economics.
E) equal to the value of studying economics.

56) When the government of Alberta chooses to build more roads, the required resources are no longer available to provide better health care facilities. This situation illustrates the concept of

A) monetary cost.
B) human capital.
C) entrepreneurship.
D) marginal benefit.
E) opportunity cost.

57) The concept of opportunity cost

A) is relevant only for developed countries.
B) is relevant only for European countries.
C) suggests a major increase in public education spending means a reduced expansion in the public healthcare system.
D) suggests that individuals can achieve all they want.
E) is relevant only for developing countries.
58) Which one of the following is a necessary consequence of scarcity?
   A) low profits
   B) no choices required
   C) the requirement of making choices
   D) all wants are satisfied
   E) high profits

59) To make choices, people must
   A) be able to carry out complex mathematical calculations.
   B) be free from government constraint.
   C) evaluate the values of alternative actions.
   D) have unlimited resources.
   E) have unlimited access to information at no cost.

60) When the government chooses to use resources to build a dam, those resources are no longer available to build a highway. This illustrates the concept of
   A) opportunity cost.
   B) a "how" tradeoff.
   C) macroeconomics.
   D) the big tradeoff.
   E) a market.

61) What is the definition of marginal benefit?
   A) the cost of an increase in an activity
   B) the benefit that arises from an increase in an activity
   C) the sum of benefit and cost that arises from an increase in an activity
   D) the benefit that arises from a decrease in an activity
   E) the cost of a decrease in an activity

62) When asked in an interview what she missed the most because of the time she spent training for the Olympics, a rower, who lived on her own, answered "a normal social life." She also revealed that she had given up a job that paid $30,000 per year to train fulltime. She received a grant of $8,000 per year from Sport Canada, but this failed to cover all her training expenses. Her food and rent were $5,000 per year and training expenses were $12,000 per year. Aside from the value of a normal social life, what is the annual opportunity cost, expressed in dollars, to this rower of "Going for Gold"?
   A) $25,000
   B) $30,000
   C) $39,000
   D) $34,000
   E) $4,000

63) Saskatchewan had more hospitals than Ontario, despite having one-tenth the population. The Saskatchewan government closed many of these hospitals in spite of widespread local protests. Which one of the following arguments is true?
   A) The Saskatchewan government must have thought the marginal benefit from one of these hospitals exceeded its marginal cost.
   B) The communities where these hospitals existed bore no costs from these decisions, because they did not pay for any of the hospital operating costs.
   C) If Saskatchewan had more hospitals than Ontario, it must have had too many hospitals.
   D) The Saskatchewan government must have thought the marginal benefit from one of these hospitals was less than its marginal cost.
   E) Since hospitals have positive benefits, they should never be closed.
64) "There can be too much of a good thing." This statement suggests that
A) a good may be produced to the point where its marginal cost exceeds its marginal benefit.
B) certain goods and services such as education and health care are inherently desirable and should be produced regardless of costs and benefits.
C) a good may be produced to the point where its marginal benefit is equal to its marginal cost.
D) a good may be produced to the point where its marginal benefit exceeds its marginal cost.
E) choices made in self-interest cannot be applied to many economic decisions.

65) Which of the following sayings best describes opportunity cost?
A) "Boldly go where no one has gone before."
B) "There's no such thing as a free lunch."
C) "Love of money is the root of all evil."
D) "Make hay while the sun shines."
E) "Baseball has been very good to me."

66) If you take an additional class this term, you can graduate earlier. This is an example of
A) total cost.
B) social cost.
C) marginal benefit.
D) the pursuit social interest.
E) opportunity cost.

67) Marginal benefit is the
A) opportunity cost of a decrease in an activity.
B) total benefit from an activity.
C) opportunity cost of an increase in an activity.
D) additional benefit from a decrease in an activity.
E) additional benefit from an increase in an activity.

68) Complete the following sentence. Marginal cost is
A) the cost of an increase in an activity.
B) the opportunity cost of a decrease in an activity.
C) the cost of a decrease in an activity.
D) the total cost of an activity.
E) equal to marginal benefit.

69) The big tradeoff is the tradeoff between
A) taxes and transfers.
B) equality and efficiency.
C) personal security and private property.
D) current consumption and a higher future standard of living.
E) guns and butter.

70) Monika will choose to eat a seventh pizza slice if
A) the total benefit from all seven slices is greater than their total cost.
B) she has enough money to pay for it.
C) the marginal benefit from the seventh slice is less than its marginal cost.
D) the marginal benefit from the seventh slice is greater than its marginal cost.
E) the total benefit from all seven slices is less than their total cost.
71) Before starring as Tony Stark in *Iron Man*, Robert Downey Jr. had played in 45 movies that had average first-weekend box office revenues of a bit less than $5 million. *Iron Man* grossed $102 million in its first weekend. The success of *Iron Man* ______ the opportunity cost of hiring Robert Downey Jr.

Movie producers now have ______ incentive to hire Robert Downey Jr.

A) decreases; zero  
B) increases; less  
C) decreases; less  
D) increases; more  
E) decreases; more

72) The night before a history test, you decide to go to the movies instead of reviewing your notes. You get 60 percent on your test compared with the 75 percent that you normally score. You ______ a tradeoff ______, and the opportunity cost of your evening at the movies was ______.

A) faced; between a higher test score and an evening at the movies; the mark of 60 percent on your test  
B) did not face; because your roommates agreed you should go to the movies and not study; zero  
C) did not face; most students get 60 percent on history tests; the mark of 60 percent on your test  
D) faced; between a higher test score and an evening at the movies; the 15 percent fall in your grade  
E) did not face; because you made the best choice; zero

73) A university decides to change its late night bus service between the campus and student housing from a fare-based service to a free service. This statement means that the incentive to ride the bus ______ and the opportunity cost of a bus ride ______. The university's decision is a ______ decision.

A) changes; decreases; macroeconomic  
B) remains the same; remains the same; macroeconomic  
C) remains the same; remains the same; microeconomic  
D) changes; decreases; microeconomic  
E) changes; increases; microeconomic

Use the information below to answer the following question.

**Fact 1.1.1 Costs Soar for London Olympics**

The regeneration of East London is set to add extra £1.5 billion to taxpayers' bill.  
*The Times*, London, July 6, 2006

74) Refer to Fact 1.1.1. The cost of regenerating East London ______ an opportunity cost of hosting the 2012 Olympic Games ______.

A) is not; because regenerating East London is an unnecessary expense  
B) is; if the costs of the East London regeneration is equal to a significant percentage of the total amount spent by London taxpayers to host the 2012 Olympics  
C) is not; because few people attending the 2012 Olympics will spend much time outside Olympic venues  
D) is; if the regeneration of East London would not occur unless London hosted the 2012 Olympics  
E) is; if the property taxes of people living in East London increase

75) The fundamental economic institutions that help societies cope with scarcity are ______.

A) the objects that people value and produce to satisfy human wants  
B) private property protected by a system of laws and markets that enable voluntary exchange  
C) foreign exchange markets and stock markets  
D) banks and the government  
E) households, firms, and governments
76) Statements about "what ought to be" are called
   A) positive statements.
   B) economic statements.
   C) normative statements.
   D) hypotheses.
   E) scientific statements.

77) Statements about "what is" are called
   A) hypotheses.
   B) normative statements.
   C) positive statements.
   D) economic statements.
   E) scientific statements.

78) Which of the following statements is normative?
   A) As compact disc prices fall, people buy more of them.
   B) If income increases, sales of luxury goods fall.
   C) Warts are caused by handling toads.
   D) Scientists should not make normative statements.
   E) There is more caffeine in a cup of tea than in a cup of coffee.

79) A positive statement is
   A) about what is.
   B) capable of evaluation as true or false by observation and measurement.
   C) about what ought to be.
   D) always true.
   E) B and D.

80) A positive statement is
   A) what is currently believed about the way the world operates.
   B) about what ought to be.
   C) always true.
   D) always false.
   E) an opinion that cannot be verified.

81) A normative statement is
   A) about what should be.
   B) capable of evaluation, as true or false, by observation and measurement.
   C) always true.
   D) always false.
   E) about what is.

82) "The rich should face higher income tax rates than the poor." This is an example of
   A) neither a normative nor a positive statement.
   B) a positive statement.
   C) a normative statement.
   D) a negative statement.
   E) economic reasoning.

83) Which of the following is an example of a positive statement?
   A) Increasing the minimum wage results in more unemployment.
   B) Every Canadian should have equal access to health care.
   C) Canada should have lower tax rates for wealthier Canadians.
   D) Canada should cut back on its use of carbon-based fuels such as coal and oil.
   E) The Bank of Canada ought to cut the interest rate.
84) Complete the following sentence. Economic models
   A) include most of the details of the economic world.
   B) describe some aspect of the economic world, but include only those features needed for the purpose at hand.
   C) answer questions that arise from normative statements.
   D) were first developed in the 1970s.
   E) do not answer questions about the economic world.

85) The scientific purpose of simplifying assumptions in an economic model is to
   A) abstract from the complexities of the real world those issues that are not important for the issues under examination.
   B) avoid confronting difficult issues.
   C) eliminate the need for further testing of the implications of the model.
   D) add necessary hypotheses to the problem.
   E) eliminate the possibility of personal bias in the model.

86) Model A is superior to model B if
   A) its predictions correspond more closely to the facts than the predictions of model B.
   B) it contains fewer unrealistic assumptions than model B.
   C) it is scientifically "elegant."
   D) it is preferred by a majority of researchers in a public opinion poll.
   E) it contains more real world detail than model B.

87) In choosing among alternative models, economists generally have the strongest preference for models that
   A) have assumptions that are close to exact replicas of reality.
   B) have few assumptions and are as simple as possible, even if they cannot predict very well.
   C) have assumptions that are complicated.
   D) are detailed and complex, with every available fact and figure included.
   E) predict better than any other that is available.

88) A normative statement is a statement regarding
   A) the predictions of an economic model.
   B) what is.
   C) the assumptions of an economic model.
   D) what ought to be.
   E) what is usually the case.

89) "The rich face higher income tax rates than the poor" is an example of a
   A) a theoretical statement.
   B) an analytical statement.
   C) a normative statement.
   D) a predictive statement.
   E) a positive statement.

90) An economic model is tested by
   A) comparing its complexity to other models that deal with similar issues.
   B) the Testing Committee of the Canadian Economic Association.
   C) comparing its descriptions and examining the realism of its assumptions.
   D) comparing its predictions with the facts.
   E) examining the realism of its assumptions.

91) Which of the following is a positive statement?
   A) Low rents restrict the supply of housing.
   B) Low rents are better for a city than high rents.
   C) Housing costs too much.
   D) Government should control the rents that apartment owners charge.
   E) Owners of apartment buildings ought to be free to charge whatever rent they want.
92) "The rich face higher income tax rates than the poor, which is not good since it is the rich who provide jobs for the poor."
This is an example of
A) a normative statement.
B) a negative statement.
C) a theoretical statement.
D) a positive statement.
E) a descriptive statement.

93) An economic model is
A) useful if it predicts well, even if its assumptions are not realistic.
B) tested by the Testing Committee of the Canadian Economic Association.
C) not useful because it simplifies real problems.
D) not useful unless it predicts with 100 percent accuracy.
E) tested by examining the realism of its assumptions.

94) Select the best statement about economic models.
A) An economic model must always be correct in its predictions or it must be discarded.
B) Economic models are all false.
C) An economic model will be discarded if its predictions are often in conflict with the facts.
D) An economic model is evaluated based on the realism of its assumptions.
E) An economic model should not generate predictions about actual events in the real world, since it discusses only abstract events.

95) To disentangle cause and effect, economists use economic models and use ________ to test the predictions of those models.
A) positive statements and normative statements
B) personal economic policy, business economic policy, and government economic policy
C) natural experiments, statistical investigations, and economic experiments
D) marginal benefit and marginal cost
E) the *what*, *how*, and *for whom* questions

96) The role of marginal analysis in the use of economics as a policy tool is to ________.
A) find the outcome with the least possible cost
B) find the outcome that will give a political party the most votes
C) evaluate marginal benefit and marginal cost to find the solution that provides employment to the greatest number of people
D) evaluate marginal benefit and marginal cost to find the solution that brings the greatest available gain
E) find the outcome that satisfies the greatest number of people

97) Which of the following statements are positive?
1. The federal government should increase production of biofuels
2. Air travel has increased since September 11
3. The greatest number of accidents are caused by drunk drivers
4. We ought to have a cure for cancer
A) statements 3 and 4 are positive
B) statements 2 and 3 are positive
C) statements 2 and 4 are positive
D) statements 1 and 4 are positive
E) statements 1 and 2 are positive
Use the figure below to answer the following questions.

Refer to Figure 1A.1.1. Which one of the following statements is true?
A) All four graphs indicate ways to represent data.
B) Graph (d) cannot be used to represent data because it has dots, not lines.
C) All but graph (a) can be used to represent data.
D) Only graphs like (a) can be used to represent data.
E) Only graphs like (b) and (c) can be used to represent data.

Refer to Figure 1A.1.1. Which one of the graphs is a scatter diagram?
A) (a).
B) (b).
C) (c).
D) (d).
E) (b) and (d).

Refer to Figure 1A.1.1. Which of the diagrams illustrates a time-series graph?
A) (b) and (c).
B) (b).
C) (c).
D) (d).
E) (b), (c), and (d).
Use the figure below to answer the following question.

### Figure 1A.1.2

101) Refer to Figure 1A.1.2. The solid line represents variable $Y$. The value of $Y$
   A) decreased more rapidly between 2005 and 2006 than in any other period.
   B) increased more rapidly between 2004 and 2005 than in any other period.
   C) ended the period below its 2004 value.
   D) decreased more rapidly between 2002 and 2003 than between 2001 and 2002.
   E) increased more rapidly between 2008 and 2009 than in any other period.

Use the figure below to refer to the following question.

### Figure 1A.1.3

102) Refer to Figure 1A.1.3. The behaviour of $X$ over time is best characterized as exhibiting
   A) an upward trend.
   B) a downward trend and increasing variability.
   C) an upward trend sometimes and a downward trend sometimes.
   D) no trend.
   E) a constant trend.
103) The behaviour of a single economic variable over time is best illustrated by a
   A) cross-section graph.
   B) linear graph.
   C) scatter diagram.
   D) one-variable graph.
   E) time-series graph.

104) The general tendency for a variable to move in one direction is called
   A) causation.
   B) purpose.
   C) slope.
   D) trend.
   E) correlation.

105) A cross-section graph shows the values of a variable
   A) for different groups or categories at a point in time.
   B) as a percentage of change across time.
   C) as an absolute rate of change across time.
   D) for a given group across time.
   E) in relationship to other variables.

106) An educator is studying how average grades for economics students vary across classes, based on the time of day of the
     lecture. The data represent information from one term only. The most effective way of depicting the data is a
     A) triple-axis graph.
     B) trend graph.
     C) time-series graph.
     D) scatter diagram.
     E) cross-section graph.

*Use the information below to answer the following question.*

![Figure 1A.1.4](image)

107) Figure 1A.1.4 is a time-series graph. The x-axis measures _______ and the y-axis measures _______.
   A) time; the variable of interest
   B) slope; time
   C) the variable of interest; time
   D) the variable of interest in one year; the variable of interest in another year
   E) time; slope
108) Which type of graph can mislead?
A) scatter diagrams only
B) time-series graphs only
C) cross-section graphs only
D) all of the above
E) none of the above.

*Use the figure below to answer the following questions.*

![Graphs](image)

109) The graphs in Figure 1A.1.5 are examples of
A) scatter diagrams.
B) cross-section graphs.
C) dot diagrams.
D) dot graphs.
E) none of the above.

110) Refer to Figure 1A.1.5. Which graph or graphs indicates a positive relationship between $x$ and $y$?
A) (a)
B) (b)
C) (c)
D) (d)
E) (a) and (d)
111) Refer to Figure 1A.1.5. Which graph or graphs indicates a negative relationship between \( x \) and \( y \)?
A) (a)
B) (b)
C) (c)
D) (d)
E) (b) and (d)

112) Refer to Figure 1A.1.5. Which graph or graphs indicates no relationship between \( x \) and \( y \)?
A) (a)
B) (b)
C) (c)
D) (c) and (d)
E) (a) and (b)

113) Consider graph (a) of Figure 1A.1.5. Which one of the following statements is true?
A) \( x \) and \( y \) move in opposite directions.
B) \( x \) and \( y \) are positively related.
C) \( x \) and \( y \) are unrelated.
D) \( x \) and \( y \) are negatively related.
E) both A and D are correct.

114) Consider graph (b) of Figure 1A.1.5. Which one of the following statements is true?
A) \( x \) and \( y \) are negatively related.
B) \( x \) and \( y \) are positively related.
C) \( x \) and \( y \) are unrelated.
D) \( x \) and \( y \) move in opposite directions.
E) both A and D are correct.

115) Consider graph (d) of Figure 1A.1.5. Which one of the following statements is true?
A) \( x \) and \( y \) are negatively related.
B) \( x \) and \( y \) are unrelated.
C) \( x \) and \( y \) move in opposite directions.
D) \( x \) and \( y \) are positively related.
E) both A and D.
116) Refer to Figure 1A.1.6. The graph shows a time-series graph of the inflation rate between 1997 and 2007. The inflation rate is highest in _______ and lowest in _______.
   A) 2007; 1997
   B) 2000; 1998
   C) 1999; 1997
   D) 1998; 2000
   E) 2003; 2004

117) Refer to Figure 1A.1.6. The graph shows a time-series graph of the inflation rate between 1997 and 2007. The inflation rate _______.
   A) shows a downward trend
   B) shows an upward trend
   C) has a downward trend followed by an upward trend
   D) shows that the annual change in inflation is constant
   E) shows no trend
Use the figure below to answer the following questions.

**Figure 1A.1.7**

118) Refer to Figure 1A.1.7. The graph shows a time-series graph of motor gasoline produced between 1997 and 2007. The quantity of motor gasoline
   A) shows an upward trend only between 2001 and 2004.
   B) shows an upward trend between 1997 and 2007.
   C) has no trend because some years the quantity increases and other years the quantity decreases.
   D) increases in every year.
   E) shows a downward trend.

119) Refer to Figure 1A.1.7. The graph shows a time-series graph of motor gasoline produced between 1997 and 2007. The quantity of motor gasoline is lowest in
   A) 2004.
   B) 1999.
   C) 2001.
   D) 1997.
   E) 2005.

120) If variables $x$ and $y$ move up and down together, they are
   A) trendy.
   B) positively related.
   C) conversely related.
   D) unrelated.
   E) negatively related.

121) Two variables are positively related if
   A) increases in one are associated with increases in the other.
   B) any change in one causes a decrease in the other.
   C) any change in one causes an increase in the other.
   D) decreases in one are associated with increases in the other.
   E) increases in one are associated with decreases in the other.
122) Two variables are negatively related if
   A) increases in one are associated with increases in the other.
   B) both variables are less than zero.
   C) increases in one are associated with decreases in the other.
   D) any change in one causes a decrease in the other.
   E) any change in one causes an increase in the other.

123) The relationship between two variables that are positively related is shown graphically by a line that
   A) is above the $x$-axis and to the right of the $y$-axis.
   B) is horizontal.
   C) slopes upward to the right.
   D) is vertical.
   E) slopes downward to the right.

124) The relationship between two variables that are negatively related is shown graphically by a line that
   A) is vertical.
   B) slopes downward to the right.
   C) is below the $x$-axis and to the left of the $y$-axis.
   D) is horizontal.
   E) slopes upward to the right.

Use the figure below to answer the following question.

![Figure 1A.2.1]

125) Refer to Figure 1A.2.1. The variables $x$ and $y$
   A) have a nonlinear relationship.
   B) are unrelated.
   C) have a negative linear relationship.
   D) are positively related.
   E) are negatively related.

126) In Figure 1A.2.1, the value of $y$ is 5 when $x$ is
   A) 4.
   B) 5.
   C) 6.
   D) 7.
   E) 8.
127) Refer to Figure 1A.2.1. If $x$ decreases from 5 to 4, $y$
   A) increases from 4 to 5.
   B) increases from 3 1/2 to 4.
   C) decreases from 4 to 2.
   D) decreases from 4 to 3 1/2.
   E) decreases from 4 to 3.

128) Refer to Figure 1A.2.1. When $y$ increases from 5 to 6, $x$
   A) increases from 7 to 8.
   B) decreases from 9 to 7.
   C) increases from 5 to 6.
   D) increases from 7 to 7 1/2.
   E) increases from 7 to 9.

Use the figure below to answer the following question.

![Graph](image)

Figure 1A.2.2

129) In Figure 1A.2.2, the variables $x$ and $y$
   A) move in the same direction.
   B) are unrelated.
   C) are time-series variables.
   D) are positively related.
   E) are negatively related.

130) The relationship between two variables that move in opposite directions is shown graphically by a line that is
   A) relatively flat.
   B) curved.
   C) relatively steep.
   D) negatively sloped.
   E) positively sloped.
Use the figure below to answer the following questions.

Refer to Figure 1A.2.3. If you were told that economic theory predicts that higher levels of the rate of interest (x) lead to lower levels of sales of houses (y), which graph would you pick to represent this economic relationship?

A) (b)  
B) (d)  
C) (a) or (d)  
D) (a)  
E) (c)

Refer to Figure 1A.2.3. If your theory predicted that a rise in the wage rate (x) leads to a rise in the amount of labour supplied in the economy (y), which graph would you use to represent this relationship?

A) (b)  
B) (a) or (c)  
C) (c)  
D) (a)  
E) (d)

Refer to Figure 1A.2.3. Which of the graphs shows a positive relationship between x and y?

A) (a)  
B) (b)  
C) (c)  
D) (d)  
E) both (b) and (d)
134) Refer to Figure 1A.2.3. Which one of the graphs shows a negative relationship between \(x\) and \(y\)?
   A) (a)
   B) (b)
   C) (c)
   D) (d)
   E) both (a) and (d)

135) Refer to Figure 1A.2.3. Suppose our theory predicted that for low levels of quantity produced (\(x\)) a firm’s profits (\(y\)) were low, for medium levels of output their profits were high, and for high levels of output their profits were low again. Which one of the graphs would represent this relationship?
   A) (a)
   B) (b)
   C) (c)
   D) (d)
   E) none of the graphs

Use the figure below to answer the following questions.

![Figure 1A.2.4](image_url)

136) Which curve or curves in Figure 1A.2.4 shows a positive relationship between unemployment and inflation?
   A) A
   B) A and B
   C) B, C, and D
   D) A and B
   E) none of the curves.

137) Which curve or curves in Figure 1A.2.4 shows no relationship between unemployment and inflation?
   A) A
   B) A and B
   C) B, C, and D
   D) A and C
   E) B and D

138) Which curve or curves in Figure 1A.2.4 shows a negative relationship between unemployment and inflation?
   A) A
   B) B, C, and D
   C) A and B
   D) A and D
   E) B and C
Use the table below to answer the following question.

<table>
<thead>
<tr>
<th>Year</th>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>6.2</td>
<td>143</td>
</tr>
<tr>
<td>2001</td>
<td>5.7</td>
<td>156</td>
</tr>
<tr>
<td>2002</td>
<td>5.3</td>
<td>162</td>
</tr>
</tbody>
</table>

139) The data in Table 1A.2.1 shows that
A) x and y have a positive relationship.
B) there is first a negative and then a positive relationship between x and y.
C) there is first a positive and then a negative relationship between x and y.
D) there is no relationship between x and y.
E) x and y have a negative relationship.

Use the figure below to answer the following questions.

![Figure 1A.2.5](image)

140) Refer to Figure 1A.2.5. Which one of the following statements is true?
A) y reaches a maximum at point C.
B) y reaches a minimum at point C.
C) x and y are unrelated.
D) x and y are negatively related at all points between points B and D.
E) x and y are positively related at all points between A and D.

Use the table below to answer the following question.

<table>
<thead>
<tr>
<th>y</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>z</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

141) Refer to Table 1A.2.2. What type of relationship exists between y and z?
A) positive
B) negative
C) inverse
D) No consistent relationship exists.
E) first a positive relationship, then a negative one
Use the table below to answer the following questions.

Table 1A.2.3

<table>
<thead>
<tr>
<th>w</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>u</td>
<td>15</td>
<td>12</td>
<td>9</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

142) Refer to Table 1A.2.3. What type of relationship exists between \( w \) and \( u \)?
   A) negative
   B) direct
   C) positive
   D) first a positive relationship, then a negative one
   E) No consistent relationship exists.

Use the figure below to answer the following question.

![Figure 1A.2.6](image)

143) Refer to Figure 1A.2.6. Consider the values for \( x \) and \( y \) given in the following table:

<table>
<thead>
<tr>
<th>( x )</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>( y )</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Which one of the graphs in Figure A1.13 represents the relationship between \( x \) and \( y \)?
   A) (a)
   B) (b)
   C) (c)
   D) (d)
   E) (a) and (b)
144) The change in the value of the variable measured on the $y$-axis divided by the change in the value of the variable measures on the $x$-axis is
   A) a maximum or minimum.
   B) increasing.
   C) decreasing.
   D) constant.
   E) slope.

145) The slope of a horizontal line is
   A) negative.
   B) zero.
   C) positive.
   D) infinite.
   E) initially positive and then negative.

146) The slope of a straight line
   A) is the same at every point only if the line is horizontal.
   B) increases as the variable on the $x$-axis increases if the slope is positive.
   C) is the same at every point.
   D) decreases as the variable on the $x$-axis increases if the slope is negative.
   E) depends on where you measure the slope.

Use the figure below to answer the following questions.

![Figure 1A.3.1](image)

147) In Figure 1A.3.1, if household income increases by $1000, household expenditure will
   A) increase by $1000.
   B) remain unchanged.
   C) increase by $750.
   D) increase by $1333.
   E) decrease by $1333.
148) The slope of the line in Figure 1A.3.1 is
   A) 0.50.
   B) 1.00
   C) 1.50.
   D) 1.25.
   E) 0.75.

Use the figure below to answer the following question.

![Figure 1A.3.2](image)

149) Refer to Figure 1A.3.2. The slope across the arc between A and B is
   A) 2.
   B) 1/2.
   C) 3.
   D) 2/3.
   E) 1.
Use the figure below to answer the following questions.

Figure 1A.3.3

150) Figure 1A.3.3 illustrates two variables, $x$ and $y$, which are
   A) positively related, with an increasing slope as $x$ increases.
   B) negatively related, with an increasing slope as $x$ increases.
   C) negatively related, with a decreasing slope as $x$ increases.
   D) positively related, with slope first increasing then decreasing.
   E) positively related, with a decreasing slope as $x$ increases.

151) In Figure 1A.3.3, the slope across arc $AB$ is
   A) $1/2$.
   B) $5/2$.
   C) 1.
   D) $5/3$.
   E) $3/2$.

152) In Figure 1A.3.3 the relationship between $x$ and $y$ as $x$ increases is
   A) positive with increasing slope.
   B) negative with decreasing slope.
   C) positive with slope first increasing then decreasing.
   D) positive with decreasing slope.
   E) negative with increasing slope.

153) What is the slope across the arc between $B$ and $C$ in Figure 1A.3.3?
   A) $1/2$.
   B) 1
   C) 2
   D) $2/3$
   E) 3
Use the figure below to answer the following questions.

**Figure 1A.3.4**

154) Figure 1A.3.4 illustrates two variables, $x$ and $y$, which are
   A) positively related, with slope becoming closer to 0 as $x$ increases from 2 to 16.
   B) positively related, with the slope unchanging as $x$ increases from 2 to 16.
   C) negatively related, with slope becoming closer to 0 as $x$ increases from 2 to 16.
   D) negatively related, with slope becoming farther from 0 as $x$ increases from 2 to 16.
   E) positively related, with slope becoming farther from 0 as $x$ increases from 2 to 16.

155) In Figure 1A.3.4, the slope across arc $AB$ is
   A) -1.
   B) $-9/4$.
   C) $-3/2$.
   D) -3.
   E) $2/3$.

156) In Figure 1A.3.4, the slope across arc $BC$ is
   A) $-3/2$.
   B) $-3/4$.
   C) $-4/3$.
   D) $-2/3$.
   E) -2.

157) Refer to Figure 1A.3.4. In Figure 1A.3.4, the slope at point $B$
   A) lies between $-2/3$ and -1.
   B) lies between $-3/4$ and $-3/2$.
   C) lies between $-2/3$ and $-4/3$.
   D) is greater than $3/2$.
   E) lies between 1 and $3/2$. 
Use the figure below to answer the following questions.

Figure 1A.3.5

158) Refer to Figure 1A.3.5. Which one of the following statements is true?
   A) The slope is less between points A and B than between points B and C.
   B) The slope at C is negative.
   C) The slope is greater between points B and C than between points A and B.
   D) The slope at C is 1.
   E) The slope at C is 0.

159) Refer to Figure 1A.3.5. In Figure 1A.3.5, the slope across arc BC is
   A) 2.
   B) 5/6.
   C) 1/2.
   D) 1.
   E) 1/3.

160) Refer to Figure 1A.3.5. In Figure 1A.3.5, the slope across arc CD is
   A) 1/2.
   B) -5/8.
   C) -1.
   D) 1.
   E) -1/2.

Use the table below to answer the following question.

Table 1A.3.1

<table>
<thead>
<tr>
<th>y</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>z</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

161) Refer to Table 1A.3.1. Assuming y is plotted on the vertical axis, the slope of the line is
   A) constant at +2.
   B) -2 when x is between 1 and 3, and then +2 when x is between 4 and 5.
   C) -2 when x is between 4 and 5.
   D) -2 when x is between 1 and 3.
   E) constant at -2.
162) In Table 1A.3.2, suppose that \( w \) is measured along the \( x \)-axis. The slope of the line relating \( w \) and \( u \) is
A) negative with a constant slope.
B) positive with a decreasing slope.
C) positive with a constant slope.
D) negative with a decreasing slope.
E) positive with an increasing slope.

163) Refer to Table 1A.3.2. Suppose that \( w \) is measured along the \( x \)-axis. The slope of the line relating \( w \) and \( u \) is
A) \(-2/3\).
B) \(+3/2\).
C) \(-3/2\).
D) \(-3\).
E) \(+3\).

164) Refer to Table 1A.3.3. If we were to draw a graph of this relationship, when would the slope be positive?
A) only if \( x \) equals 5
B) only if \( x \) is less than 5
C) never
D) only if \( x \) is greater than 5
E) We do not have enough information to tell.

165) Refer to Table 1A.3.3. When \( x \) equals 5, the slope is
A) 5.
B) \(-2\).
C) infinite.
D) \(+2\).
E) 0.

166) Refer to Table 1A.3.3. When \( x \) equals 5,
A) \( y \) is at a minimum.
B) the slope is positive.
C) the slope is negative.
D) \( y \) is at a maximum.
E) the slope is first positive and then becomes negative.

167) At all points along a straight line, slope is
A) negative.
B) constant.
C) positive.
D) infinity.
E) zero.
168) What is the slope of the line in Figure A1.3.6?
   A) 3
   B) 1/2.
   C) -3
   D) 2
   E) 1/3

169) The slope of the line in Figure 1A.3.7 is
   A) -1.
   B) 1.
   C) 2.
   D) 1/2.
   E) dependent on where you measure it.
Use the figure below to answer the following question.

Figure 1A.3.8

170) The slope of the line in Figure 1A.3.8 is
   A) 2/3.
   B) 3/2.
   C) -3/2.
   D) -2/3.
   E) none of the above.
Use the figure below to answer the following questions.

![Figure 1A.3.9](image)

171) Refer to Figure 1A.3.9. Which one of the graphs shows a line with a zero slope?
   A) (a)
   B) (b)
   C) (c)
   D) (d)
   E) (a), (b), and (c)

172) Refer to Figure 1A.3.9. Which one of the graphs shows a line with an infinite slope?
   A) (a)
   B) (b)
   C) (c)
   D) (d)
   E) (b) and (c)
Use the figure below to answer the following questions.

![Figure 1A.3.10](image)

173) Refer to Figure 1A.3.10. The figure shows a relationship between two variables, x and y. The slope at point A is
   A) 2
   B) -0.25
   C) 0.25
   D) -4
   E) -2

174) Refer to Figure 1A.3.10. The figure shows a relationship between two variables, x and y. The slope at point B is
   A) -0.25
   B) 2
   C) 0.25
   D) 0.5
   E) -2
CH 01 - What is Economics?

Use the figure below to answer the following question.

![Figure 1A.3.11](image)

175) Refer to Figure 1A.3.11. The graph shows a _______ relationship. The absolute value of the slope of the relationship _______ as the value of \( x \) increases.
   A) negative; increases
   B) negative; does not change
   C) positive; increases
   D) positive; decreases
   E) negative; decreases

176) To graph a relationship among three variables we
   A) hold two variables constant to graph the third variable.
   B) hold one variable constant and graph the relationship between the other two variables.
   C) must be able to draw in three dimensions.
   D) must be able to allow all three variables to vary simultaneously in one graph.
   E) graph each of the three variables using a separate time-series graph.

Use the table below to answer the following questions.

<table>
<thead>
<tr>
<th>x</th>
<th>120</th>
<th>100</th>
<th>80</th>
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<th>120</th>
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</thead>
<tbody>
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<td>14</td>
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<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

177) Given the data in Table 1A.4.1, holding \( z \) constant, the graph of \( x \) and \( y \)
   A) is a negatively sloped line.
   B) reaches a minimum.
   C) does not have a constant slope.
   D) is a positively sloped line.
   E) reaches a maximum.

178) Given the data in Table 1A.4.1, holding \( y \) constant, the graph of \( x \) and \( z \)
   A) is a negatively sloped line.
   B) shows that \( x \) and \( z \) are not related.
   C) reaches a maximum.
   D) reaches a minimum.
   E) is a positively sloped line.
179) Consider the data in Table 1A.4.1. Suppose \( z \) increases from 4 to 5. What will happen to the graph of the relationship between \( x \) and \( y \)?
   A) It will shift to the left.
   B) It will shift to the right.
   C) It will become positively sloped.
   D) both A and C
   E) both B and C

Use the figure below to answer the following question.

![Graphs](image_url)

**Figure 1A.4.1**

180) Given the data in the following table, which one of the graphs in Figure 1A.4.1 correctly represents the relationship among \( x \), \( y \), and \( z \)?

<table>
<thead>
<tr>
<th></th>
<th>120</th>
<th>100</th>
<th>80</th>
<th>140</th>
<th>120</th>
<th>100</th>
<th>160</th>
<th>140</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>( x )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( y )</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>( z )</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

A) (a)  B) (b)  C) (c)  D) (d)  E) (b) and (c)
181) Given the data in the following table, which one of the graphs in Figure 1A.4.2 correctly represents the relationship among \( x, y, \) and \( z \)?

<table>
<thead>
<tr>
<th>( x )</th>
<th>120</th>
<th>100</th>
<th>80</th>
<th>140</th>
<th>120</th>
<th>100</th>
<th>160</th>
<th>140</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>( y )</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>( z )</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

A) (a)  
B) (b)  
C) (c)  
D) (d)  
E) (a) and (d)
Use the table below to answer the following questions.

<table>
<thead>
<tr>
<th>Family income (dollars per week)</th>
<th>Price of strawberries (dollars per box)</th>
<th>Number of boxes purchased per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>1.00</td>
<td>5</td>
</tr>
<tr>
<td>300</td>
<td>1.25</td>
<td>3</td>
</tr>
<tr>
<td>300</td>
<td>1.50</td>
<td>2</td>
</tr>
<tr>
<td>400</td>
<td>1.00</td>
<td>7</td>
</tr>
<tr>
<td>400</td>
<td>1.25</td>
<td>5</td>
</tr>
<tr>
<td>400</td>
<td>1.50</td>
<td>4</td>
</tr>
</tbody>
</table>

182) Table 1A.4.2 shows that,
   A) the number of boxes of strawberries purchased is negatively related to the price of strawberries, holding income constant.
   B) the price of strawberries is negatively related to family income, holding purchases of strawberries constant.
   C) the number of boxes of strawberries purchased is negatively related to income, holding the price of strawberries constant.
   D) B and C.
   E) A and B.

183) Given the data in Table 1A.4.2, holding income constant, the graph relating the price of strawberries, measured on the \( y \)-axis and the purchases of strawberries, measured on the \( x \)-axis
   A) is a vertical line.
   B) is a negatively sloped line.
   C) is a positively sloped line.
   D) is a horizontal line.
   E) reaches a minimum.

184) Given the data in Table 1A.4.2, suppose family income decreases from $400 to $300 per week. Then the graph relating the price of strawberries, measured on the \( y \)-axis and the number of boxes of strawberries purchased, measured on the \( x \)-axis will
   A) no longer exist.
   B) become negatively sloped.
   C) shift rightward.
   D) shift leftward.
   E) become positively sloped.

185) Given the data in Table 1A.4.2, holding price constant, the graph of the purchases of strawberries, measured on the \( x \)-axis and family income, measured on the \( y \)-axis is a
   A) negatively sloped line.
   B) positively or negatively sloped line, depending on the price that is held constant.
   C) horizontal line.
   D) positively sloped line.
   E) vertical line.
Use the figure below to answer the following question.

**Figure 1A.4.3**

186) In Figure 1A.4.3, \( x \) is
   A) negatively related to \( y \) and positively related to \( z \).
   B) greater than \( z \).
   C) positively related to both \( y \) and \( z \).
   D) positively related to \( y \) and negatively related to \( z \).
   E) negatively related to both \( y \) and \( z \).

187) In Figure 1A.4.3, a decrease in the value of \( z \) results in, *ceteris paribus*,
   A) an increase in the value of \( y \).
   B) a decrease in the value of \( x \).
   C) no change in the value of \( x \).
   D) an increase in the value of \( x \).
   E) no change in the value of \( y \).
188) Complete the following sentence. In Figure 1A.4.4, \( z \) is
A) related to \( y \) but not related to \( x \).
B) positively related to both \( x \) and \( y \).
C) negatively related to \( x \) and positively related to \( y \).
D) negatively related to both \( x \) and \( y \).
E) positively related to \( x \) and negatively related to \( y \).

189) To graph a relationship among more than two variables, what assumption is necessary?
A) normative
B) independence of variables
C) linear
D) positive
E) ceteris paribus

190) Consider the following information on cola sales by number of cases for a typical university residence floor:

<table>
<thead>
<tr>
<th>Temp. (°C)</th>
<th>Price (dollars per case)</th>
<th>10.00</th>
<th>12.50</th>
<th>15.00</th>
<th>17.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>60</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>70</td>
<td>60</td>
<td>50</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>80</td>
<td>70</td>
<td>60</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>90</td>
<td>80</td>
<td>70</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Cola sales and cola prices are
A) positively related.
B) inversely related.
C) negatively related at low temperatures, but positively related at high temperatures.
D) not affected by the temperature.
E) unrelated.
Consider the following information on cola sales by number of cases for a typical university residence floor:

<table>
<thead>
<tr>
<th>Temp. (°C)</th>
<th>Price (dollars per case)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>10.00 50 40 30 20</td>
</tr>
<tr>
<td>20</td>
<td>12.50 60 50 40 30</td>
</tr>
<tr>
<td>25</td>
<td>15.00 70 60 50 40</td>
</tr>
<tr>
<td>30</td>
<td>17.50 80 70 60 50</td>
</tr>
<tr>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

Cola sales and temperature are

A) inversely related.
B) positively related.
C) unrelated.
D) negatively related at low prices, but positively related at high prices.
E) not affected by the price.

Use the figure below to answer the following questions.

![Figure 1A.4.5](image)

Refer to Figure 1A.4.5. Which line shows the relationship of cola sales and its price when the temperature is 30°C?

A) A
B) B
C) C
D) D
E) E
193) Consider the following information on cola sales by number of cases for a typical university residence floor:

<table>
<thead>
<tr>
<th>Temp. (°C)</th>
<th>Price (dollars per case)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.00</td>
</tr>
<tr>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>25</td>
<td>70</td>
</tr>
<tr>
<td>30</td>
<td>80</td>
</tr>
<tr>
<td>35</td>
<td>90</td>
</tr>
<tr>
<td>12.50</td>
<td>40</td>
</tr>
<tr>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>15.00</td>
<td>30</td>
</tr>
<tr>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>17.50</td>
<td>20</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

Refer to Figure 1A.4.5. Which line shows the relationship of cola sales and the temperature when the price of a case is $15.00?

A) A  
B) B  
C) C  
D) D  
E) none of the above.

194) Consider the following information on cola sales by number of cases for a typical university residence floor:

<table>
<thead>
<tr>
<th>Temp. (°C)</th>
<th>Price (dollars per case)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.00</td>
</tr>
<tr>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>25</td>
<td>70</td>
</tr>
<tr>
<td>30</td>
<td>80</td>
</tr>
<tr>
<td>35</td>
<td>90</td>
</tr>
<tr>
<td>12.50</td>
<td>40</td>
</tr>
<tr>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>15.00</td>
<td>30</td>
</tr>
<tr>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>17.50</td>
<td>20</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

Refer to Figure 1A.4.5. Which one of the following represents what happens when the temperature rises from 20°C to 25°C?

A) The curve shifts from A to B.  
B) The curve shifts along line B.  
C) The curve shifts from B to C.  
D) The curve shifts along line C.  
E) The curve shifts from C to B.

195) The Latin term *ceteris paribus* means

A) "Fallacies are composed."  
B) "Compositions are fallacious."  
C) "The whole is not the sum of the parts."  
D) "Innocent until proven guilty."  
E) "If all other relevant things remain the same."
Use the table below to answer the following question.

Table 1A.4.3

<table>
<thead>
<tr>
<th>Price (dollars per scoop)</th>
<th>0 degrees</th>
<th>10 degrees</th>
<th>20 degrees</th>
<th>30 degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50</td>
<td>12</td>
<td>18</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>1.00</td>
<td>10</td>
<td>12</td>
<td>18</td>
<td>37</td>
</tr>
<tr>
<td>1.50</td>
<td>7</td>
<td>10</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>2.00</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2.50</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>14</td>
</tr>
</tbody>
</table>

196) Refer to Table 1A.4.3. The table shows some data on the quantity of ice cream consumed at different prices and in different weather conditions. To draw a graph of the relationship between the quantity of the ice cream consumed and the price of ice cream, we must _____.

A) hold the temperature constant at any of the four levels shown
B) pick the temperature that prevailed when the price was $1.00.
C) decrease the temperature as the price rises
D) increase the temperature as the price rises
E) hold the price constant at any of the five levels shown

Use the figure below to answer the following question.

Figure 1A.5.1

197) The equation of the line in Figure 1A.5.1 is

A) \( y = -3 + 2x \).
B) \( y = 1.5 - 0.5x \).
C) \( y = 1.5 + 2x \).
D) \( y = 1.5 + 0.5x \).
E) dependent on where you measure it.
198) If the line in Figure 1A.5.2 were to continue down to the \( x \)-axis, what would the value of \( x \) be when \( y \) is zero?
A) \(-3/2\).
B) 2
C) \(2/3\)
D) \(-2/3\)
E) 0

199) If the equation of a straight line is \( y = 6 + 3x \), then the slope is
A) 3 and the \( y \)-intercept is \(-2\).
B) \(-3\) and the \( y \)-intercept is \(6\).
C) 3 and the \( y \)-intercept is \(-6\).
D) \(-3\) and the \( y \)-intercept is \(-2\).
E) 3 and the \( y \)-intercept is 6.

200) If the equation of a straight line is \( y = 8 - 2x \), then the slope is
A) \(-2\) and the \( x \)-intercept is \(4\).
B) \(-2\) and the \( x \)-intercept is \(-4\).
C) 2 and the \( x \)-intercept is \(4\).
D) 2 and the \( x \)-intercept is \(-4\).
E) \(-2\) and the \( x \)-intercept is \(8\).

201) The equation of a line is \( y = 4 + 2x \). What is the \( y \)-intercept of this line?
A) 4
B) \(1/4\)
C) \(-2\)
D) \(-1/2\).
E) 0

202) The equation of a line is \( y = 4 + 2x \). What is the \( x \)-intercept of this line?
A) 0
B) \(-2\)
C) \(-1/2\).
D) \(1/4\)
E) 4
203) The equation of a line is \( y = 4 + 2x \). What is the slope of this line?
A) 4
B) 1/4
C) 0
D) 1/2.
E) 2

Use the figure below to answer the following questions.

![Figure 1A.5.3](image)

204) The equation of a line is \( y = 4 + 2x \). Which one of the graphs in Figure 1A.5.3 represents this line?
A) (a).
B) (b).
C) (c).
D) (d).
E) none of the graphs
Refer to Figure 1A.5.4. The graph shows the relationship between two variables, $x$ and $y$. This relationship is described by the equation ________.

A) $y = 5x^2 + 10$
B) $x = 10 + 5y$
C) $y = -5x + 10$
D) $y = 5x + 10$
E) $y = 10x + 5$

Refer to Figure 1A.5.5. The graph shows the relationship between two variables, $x$ and $y$. Which of the following equations describes this relationship?

A) $y = -3x + 15$
B) $y = -3x^2 + 15$
C) $x = 15y + 3$
D) $y = 15x + 3$
E) $y = 3x + 15$
207) Which of the following equations describes a straight line with a y-intercept of -2 and a slope of -5?
   A) \( y = -2 \)
   B) \( y = -2 - 5x \)
   C) \( y = -5x \)
   D) \( x = -2 - 5y \)
   E) \( y = -5 - 2x \)
<table>
<thead>
<tr>
<th></th>
<th>Answer Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
</tr>
<tr>
<td>3</td>
<td>D</td>
</tr>
<tr>
<td>4</td>
<td>C</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
</tr>
<tr>
<td>9</td>
<td>A</td>
</tr>
<tr>
<td>10</td>
<td>E</td>
</tr>
<tr>
<td>11</td>
<td>B</td>
</tr>
<tr>
<td>12</td>
<td>A</td>
</tr>
<tr>
<td>13</td>
<td>E</td>
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<tr>
<td>14</td>
<td>B</td>
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<tr>
<td>15</td>
<td>C</td>
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<tr>
<td>16</td>
<td>A</td>
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<tr>
<td>17</td>
<td>B</td>
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<td>18</td>
<td>D</td>
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<td>E</td>
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<td>20</td>
<td>A</td>
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<td>A</td>
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<td>22</td>
<td>A</td>
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<td>23</td>
<td>E</td>
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<td>24</td>
<td>E</td>
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<td>25</td>
<td>A</td>
</tr>
<tr>
<td>26</td>
<td>C</td>
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<tr>
<td>27</td>
<td>B</td>
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<td>28</td>
<td>C</td>
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<tr>
<td>29</td>
<td>D</td>
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<tr>
<td>30</td>
<td>B</td>
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<td>31</td>
<td>A</td>
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<tr>
<td>32</td>
<td>D</td>
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<tr>
<td>33</td>
<td>D</td>
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<tr>
<td>34</td>
<td>E</td>
</tr>
<tr>
<td>35</td>
<td>C</td>
</tr>
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<td>36</td>
<td>D</td>
</tr>
<tr>
<td>37</td>
<td>C</td>
</tr>
<tr>
<td>38</td>
<td>B</td>
</tr>
<tr>
<td>39</td>
<td>B</td>
</tr>
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<td>40</td>
<td>C</td>
</tr>
<tr>
<td>41</td>
<td>A</td>
</tr>
<tr>
<td>42</td>
<td>D</td>
</tr>
<tr>
<td>43</td>
<td>E</td>
</tr>
<tr>
<td>44</td>
<td>C</td>
</tr>
<tr>
<td>45</td>
<td>D</td>
</tr>
<tr>
<td>46</td>
<td>E</td>
</tr>
<tr>
<td>47</td>
<td>C</td>
</tr>
<tr>
<td>48</td>
<td>B</td>
</tr>
<tr>
<td>49</td>
<td>B</td>
</tr>
<tr>
<td>50</td>
<td>C</td>
</tr>
<tr>
<td>51</td>
<td>A</td>
</tr>
<tr>
<td>52</td>
<td>A</td>
</tr>
<tr>
<td>53</td>
<td>C</td>
</tr>
<tr>
<td>54</td>
<td>E</td>
</tr>
</tbody>
</table>
1) ______  58) ______  115) ______  172) ______
2) ______  59) ______  116) ______  173) ______
3) ______  60) ______  117) ______  174) ______
4) ______  61) ______  118) ______  175) ______
5) ______  62) ______  119) ______  176) ______
6) ______  63) ______  120) ______  177) ______
7) ______  64) ______  121) ______  178) ______
8) ______  65) ______  122) ______  179) ______
9) ______  66) ______  123) ______  180) ______
10) ______  67) ______  124) ______  181) ______
11) ______  68) ______  125) ______  182) ______
12) ______  69) ______  126) ______  183) ______
13) ______  70) ______  127) ______  184) ______
14) ______  71) ______  128) ______  185) ______
15) ______  72) ______  129) ______  186) ______
16) ______  73) ______  130) ______  187) ______
17) ______  74) ______  131) ______  188) ______
18) ______  75) ______  132) ______  189) ______
19) ______  76) ______  133) ______  190) ______
20) ______  77) ______  134) ______  191) ______
21) ______  78) ______  135) ______  192) ______
22) ______  79) ______  136) ______  193) ______
23) ______  80) ______  137) ______  194) ______
24) ______  81) ______  138) ______  195) ______
25) ______  82) ______  139) ______  196) ______
26) ______  83) ______  140) ______  197) ______
27) ______  84) ______  141) ______  198) ______
28) ______  85) ______  142) ______  199) ______
29) ______  86) ______  143) ______  200) ______
30) ______  87) ______  144) ______  201) ______
31) ______  88) ______  145) ______  202) ______
32) ______  89) ______  146) ______  203) ______
33) ______  90) ______  147) ______  204) ______
34) ______  91) ______  148) ______  205) ______
35) ______  92) ______  149) ______  206) ______
36) ______  93) ______  150) ______  207) ______
37) ______  94) ______  151) ______
38) ______  95) ______  152) ______
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56) ______  113) ______  170) ______
57) ______  114) ______  171) ______