1. Mark is reviewing recent applications for an opening at his company. The first few he reviews do not meet the minimum qualifications for the position, and Mark thinks to himself, “There is not one qualified applicant this time.” Mark has demonstrated
   A) operational definitions.
   B) hypothesizing.
   C) hindsight bias.
   D) sampling bias.

2. The hindsight bias refers to people's tendency to
   A) dismiss the value of skepticism.
   B) reject any ideas that can't be scientifically tested.
   C) exaggerate their ability to have foreseen an outcome.
   D) overestimate the extent to which others share their opinions.

3. Rebecca is talking to her friend about her daughter, Amy, who is in the ninth grade. Amy seems to have changed dramatically. She has changed her group of friends, she stays out past curfew, and she has been caught drinking alcohol. Also, her grades have dropped significantly. Rebecca's friend remarks, “Of course! Bad associations spoil useful habits.” This best demonstrates
   A) hindsight bias.
   B) overconfidence.
   C) scientific inquiry.
   D) perceiving patterns in random events.

4. The perception that psychological research findings merely verify our commonsense understanding is most clearly facilitated by
   A) random assignment.
   B) hindsight bias.
   C) operational definitions.
   D) the placebo effect.

5. Steven sees a group of teenagers walking down the street toward him. They are all wearing jeans with holes in them, black t-shirts with band logos on the front, and spiked, colorful hair. He thinks, “Birds of a feather flock together.” This demonstrates
   A) hindsight bias.
   B) overconfidence.
   C) scientific inquiry.
   D) perceiving patterns in random events.

6. Giving half the members of a group some purported psychological finding and the other half an opposite finding is an easy way to demonstrate the impact of
   A) the placebo effect.
   B) confounding variables.
   C) hindsight bias.
   D) the double-blind procedure.

7. Professor Smith told one class that drinking alcohol has been found to increase sexual desire. He informed another class that drinking alcohol has been found to reduce sexual appetite. The fact that neither class was surprised by the information they received best illustrates the power of
   A) cause-effect conclusions.
   B) hindsight bias.
   C) replication.
   D) the placebo effect.

8. Several weeks after a political election, voters often exaggerate their ability to have predicted the election outcome. This best illustrates
   A) the placebo effect.
   B) random assignment.
   C) wording effects.
   D) hindsight bias.

9. Mike Crampton's stockbroker has informed him that he has suffered substantial investment losses. When Mike tells his wife, she angrily responds, "I could have told you that your investment plan would fail!" Her comment best illustrates
   A) hindsight bias.
   B) debriefing.
   C) the placebo effect.
   D) replication.

10. The scientific attitude of humility is most likely to be undermined by
    A) hindsight bias.
    B) curious skepticism.
    C) ethical standards.
    D) critical thinking.

11. Formulating testable predictions before conducting research is most directly useful for restraining a thinking error known as
    A) random sampling.
    B) hindsight bias.
    C) the placebo effect.
    D) random assignment.

12. Our tendency to believe we know more than we do best illustrates
    A) naturalistic observation.
    B) the placebo effect.
    C) overconfidence.
    D) random assignment.

13. Megan was certain that she would never live far away from her family. However, when offered a job in another state, she decided to move. Megan's experience best illustrates
    A) hindsight bias.
    B) random assignment.
    C) the placebo effect.
    D) overconfidence.

14. Which of the following is most likely to inhibit critical thinking?
    A) hindsight bias
    B) overconfidence
    C) discerning hidden values
    D) creativity

15. Statisticians Persi Diaconis and Frederick Mosteller commented, “But with a large enough sample, any outrageous thing is likely to happen.” What were they referring to?
    A) hindsight bias
    B) overconfidence
    C) scientific inquiry
    D) perceiving patterns in random events

16. On a series of coin tosses, Oleg has correctly predicted heads or tails seven times in a row. In this instance, we can reasonably conclude that Oleg's predictive accuracy
    A) defies the laws of statistical probability.
    B) illustrates hindsight bias.
    C) is inconsistent with the placebo effect.
    D) is a random and coincidental occurrence.

17. Six of the children in Mr. Myer's class were born on exactly the same day. This strikes him as astonishing and improbable. In this instance, he should be reminded that
    A) random sequences of events often don't look random.
    B) events often seem more probable in hindsight.
    C) sampling extreme cases leads to false generalizations.
    D) correlation does not prove causation.

18. The self-correcting process for asking questions and observing nature's answers is known as
    A) a theory.
    B) a prediction.
    C) the scientific method.
    D) an operational definition.

19. Dr. Tate is an excellent researcher. She is curious, humble, and skeptical. These are all characteristics of
    A) having a scientific attitude.
    B) using the scientific method.
    C) forming a theory.
    D) testing a hypothesis.

20. A theory is an explanation using an integrated set of principles that _____ observations and _____ behaviors or events.
    A) questions; surveys
    B) replicates; controls
    C) organizes; predicts
    D) randomly samples; randomly assigns

21. Professor Shalet contends that parents and children have similar levels of intelligence largely because they share common genes. His idea is best described as a(n)
    A) theory.
    B) replication.
    C) naturalistic observation.
    D) operational definition.

22. The explanatory power of a scientific theory is most closely linked to its capacity to generate testable
    A) assumptions.
    B) correlations.
    C) predictions.
    D) variables.

23. A hypothesis is a(n)
    A) observable relationship between specific independent and dependent variables.
    B) testable prediction that gives direction to research.
    C) set of principles that organizes observations and explains newly discovered facts.
    D) unprovable assumption about the unobservable processes that underlie psychological functioning.

24. Testing hypotheses and refining theories is central to
    A) debriefing.
    B) regression toward the mean.
    C) the scientific method.
    D) informed consent.

25. Professor Delano suggests that because people are especially attracted to those who are good-looking, handsome men will be more successful than average-looking men in getting a job. The professor's prediction regarding employment success is an example of
    A) informed consent.
    B) the placebo effect.
    C) a hypothesis.
    D) a confounding variable.

26. Dr. Masterson is studying the relationship between media exposure to sexual content and sexual behavior. Dr. Masterson predicts that those who view more sexual content are more likely to practice risky sexual behaviors. This idea is a(n)
    A) theory.
    B) hypothesis.
    C) operational definition.
    D) hunch.

27. A statement describing the exact procedures for measuring an anticipated experimental outcome is known as a(n)
    A) hypothesis.
    B) control condition.
    C) replication.
    D) operational definition.

28. In a published report of a research study on social anxiety, psychologists included a 30-item questionnaire, which they had used to assess levels of social anxiety. The psychologists have thus provided their readers with a(n)
    A) hypothesis.
    B) independent variable.
    C) operational definition.
    D) double-blind procedure.

29. Replication of a research study is most likely to be facilitated by
    A) regression toward the mean.
    B) debriefing.
    C) operational definitions.
    D) the placebo effect.

30. Dr. Psychology is studying the relationship between alcohol intoxication and risky driving behaviors. Dr. Psychology defines alcohol intoxication as having a blood alcohol level of .08. This definition of alcohol intoxication is a(n)
    A) theory.
    B) hypothesis.
    C) operational definition.
    D) hunch.

31. Dr. Jones is studying the effect of room lighting on college students' test performance and has defined room lighting as either dimly lit or brightly lit. This definition is an example of a(n)
    A) theory.
    B) hypothesis.
    C) operational definition.
    D) hunch.

32. Repeating the essence of a previous research study to verify whether its findings extend to a new group of research participants and to different circumstances is called
    A) replication.
    B) random sampling.
    C) naturalistic observation.
    D) the double-blind procedure.

33. Professor Ambra was skeptical about the accuracy of recently reported research on sleep deprivation. Which process would best enable her to assess the reliability of these findings?
    A) naturalistic observation
    B) replication
    C) random sampling
    D) the case study

34. Dr. Smith just reviewed an article that found a relationship between playing violent video games and childhood aggression. Dr. Smith would like to conduct a similar study to see if he obtains the same results. Dr. Smith is planning on _____ this study.
    A) operationalizing
    B) replicating
    C) copying
    D) plagiarizing

35. When 270 psychologists attempted to replicate 100 psychological studies, they were able to successfully replicate only 36 percent of them. Which of the following is NOT a possible explanation for this?
    A) The 270 psychologists did not accurately repeat the original studies.
    B) Psychology is a pseudoscience.
    C) Some research topics make replication quite difficult.
    D) Using a small sample size makes replication difficult.

36. Which of the following is NOT a descriptive method?
    A) case study
    B) naturalistic observation
    C) survey
    D) experiment

37. The case study is a research method in which
    A) a single individual or group is studied in great depth.
    B) a representative sample of people are questioned regarding their opinions or behaviors.
    C) organisms are carefully observed in a laboratory environment.
    D) an investigator manipulates one or more variables that might affect behavior.

38. To understand the unusual behavior of an adult client, a clinical psychologist carefully investigates the client's current life situation and his physical, social-cultural, and educational history. Which research method has the psychologist used?
    A) the survey
    B) the case study
    C) experimentation
    D) naturalistic observation

39. Little Hans' extreme fear of horses was observed as part of a(n)
    A) experiment.
    B) survey.
    C) case study.
    D) double-blind procedure.

40. The biggest danger of relying on case-study evidence is that it
    A) is based on naturalistic observation.
    B) may be unrepresentative of what is generally true.
    C) overestimates the importance of operational definitions.
    D) leads us to underestimate the causal relationships between events.

41. By revealing what can happen through an in-depth examination of an atypical individual, _____ often suggests directions for future research.
    A) the double-blind procedure
    B) random assignment
    C) a case study
    D) a survey

42. A descriptive technique of monitoring and recording behavior in naturally occurring situations without trying to change or control the situation is called
    A) random sampling.
    B) naturalistic observation.
    C) replication.
    D) the double-blind procedure.

43. New technologies such as smart-phone apps and body-worn sensors have enabled the collection of "big data" by means of
    A) scatterplots.
    B) case studies.
    C) experimentation.
    D) naturalistic observation.

44. One research team studied the ups and downs of human moods by counting positive and negative words in 504 million Twitter messages from 84 countries. The researchers' method best illustrates the use of
    A) experimentation.
    B) naturalistic observation.
    C) case studies.
    D) a survey.

45. Which of the following facilitates descriptions of ongoing behaviors without explaining them?
    A) random assignment
    B) informed consent
    C) naturalistic observation
    D) the double-blind procedure

46. Psychologists who carefully watch the behavior of chimpanzee societies in the jungle are using a research method known as
    A) the survey.
    B) experimentation.
    C) naturalistic observation.
    D) the case study.

47. Professor Ober carefully observes and records the behaviors of children in their classrooms in order to track the development of their social and intellectual skills. Professor Ober is most clearly engaged in
    A) survey research.
    B) naturalistic observation.
    C) experimentation.
    D) replication.

48. In a research study in which participants were fitted with electronically activated recorders so that researchers could sample their daily activities, researchers employed a scientific method known as
    A) naturalistic observation.
    B) the double-blind procedure.
    C) experimentation.
    D) the case study.

49. To compare the pace of life in different countries, investigators measured the speed with which postal clerks completed a simple request. Which research method did this illustrate?
    A) the case study
    B) naturalistic observation
    C) the double-blind procedure
    D) the survey

50. Matthias Mehl and colleagues equipped 79 students with electronic recorders and then eavesdropped on more than 23,000 half-minute life slices of the students' waking hours. They found that students who were the happiest avoided small talk and engaged in more meaningful conversations. Mehl and colleagues used which research method?
    A) case study
    B) experiment
    C) experience sampling method
    D) survey

51. A descriptive technique for obtaining the self-reported attitudes or behaviors of a representative sample of a population is known as
    A) naturalistic observation.
    B) debriefing.
    C) a case study.
    D) a survey.

52. Which research method would be most appropriate for investigating the relationship between the religious beliefs of Americans and their attitudes toward abortion?
    A) the survey
    B) naturalistic observation
    C) the case study
    D) experimentation

53. The finding that twice as many Millennials report having no sexual partners since the age of 18, compared with those born in the 1960s and 1970s, was derived from the use of which research method?
    A) survey
    B) experiment
    C) case study
    D) naturalistic observation

54. Surveys indicate that people are less likely to support "welfare" than "aid to the needy." These somewhat paradoxical survey results best illustrate the importance of
    A) random sampling.
    B) wording effects.
    C) the placebo effect.
    D) naturalistic observation.

55. In their research on people's perception of the relationship between gun violence and gun control in the United States, Dr. Margo and Dr. Dillman have found that people are more approving of "common sense gun legislation" than "banning weapons." This finding demonstrates which of the following?
    A) survey
    B) naturalistic observation
    C) wording effects
    D) case study

56. People often fail to make accurate generalizations because they are unduly influenced by _____ cases.
    A) randomly selected
    B) vivid
    C) representative
    D) operationally defined

57. A representative sample is one that accurately reflects a larger
    A) control group.
    B) scatterplot.
    C) dependent variable.
    D) population.

58. To accurately generalize study results, researchers need
    A) a good population base.
    B) a highly reliable survey.
    C) naturalistic observation.
    D) a representative sample.

59. Dr. Renk would like to study the "hook up" culture among college students. To be able to generalize her findings to all college students, she needs a representative sample. To obtain such a sample, Dr. Renk should
    A) offer extra credit to students who complete her questionnaire.
    B) use naturalistic observation in her study.
    C) seek a random sample of participants.
    D) exhibit sampling bias when selecting participants.

60. After noting that a majority of professional basketball players are African-American, Ervin concluded that African-Americans are better athletes than members of other racial groups. Ervin's conclusion best illustrates the danger of
    A) replication.
    B) random assignment.
    C) the placebo effect.
    D) generalizing from vivid cases.

61. When every individual in a large population has a small but equal chance of being included in a survey, researchers are using a procedure known as
    A) the case study.
    B) the double-blind procedure.
    C) random sampling.
    D) naturalistic observation.

62. Which of the following is most useful for helping survey researchers avoid false generalizations?
    A) the case study
    B) naturalistic observation
    C) random sampling
    D) operational definitions

63. Governor Donovan was greeted by large, enthusiastic crowds at all of his political rallies. As a result, he became overconfident about his chances of reelection. In this instance, the governor needs to be alerted to the value of
    A) replication.
    B) random sampling.
    C) experimental control.
    D) naturalistic observation.

64. All those in a group being studied make up the
    A) population.
    B) sample.
    C) case study.
    D) survey.

65. To learn about the TV viewing habits of all the children attending Oakbridge School, Professor DeVries randomly selected and interviewed 50 of the school's students. In this instance, all the children attending the school are considered to be a(n)
    A) population.
    B) representative sample.
    C) independent variable.
    D) control condition.

66. To assess reactions to a proposed tuition hike at her school, Ariana sent a questionnaire to every fifteenth person in the registrar's alphabetical listing of all currently enrolled students. Ariana is ensuring that her survey results are accurate by using
    A) random assignment.
    B) naturalistic observation.
    C) replication.
    D) random sampling.

67. Suppose you want to find out which candidate college students will vote for in an upcoming national election. To be sure the sample of college students you survey is representative of the college student population, you should
    A) survey only a small sample of college students.
    B) survey only politically informed college students.
    C) survey every college student on your own campus.
    D) survey a large representative sample of the college student population.

68. In a survey, psychologists select a random sample of research participants in order to ensure that
    A) the participants are representative of the population they are interested in studying.
    B) there will be a large number of participants in the research study.
    C) the study will not be influenced by the researcher's personal values.
    D) the same number of participants will be assigned to each of the experimental conditions.

69. Correlation is a measure of the extent to which two variables
    A) are related.
    B) are random samples.
    C) influence each other.
    D) are dependent variables.

70. Correlational research is most useful for purposes of
    A) explanation.
    B) prediction.
    C) control.
    D) replication.

71. To discover the extent to which economic status can be used to predict political preferences, researchers are most likely to use
    A) the case study approach.
    B) naturalistic observation.
    C) correlational measures.
    D) experimental research.

72. Which of the following is a statistical measure of both the direction and the strength of a relationship between two variables?
    A) a correlation coefficient
    B) the descriptive method
    C) an operational definition
    D) a theory

73. When we ask, for example, how closely related are the personality scores of identical twins, we are asking how strongly two _____ are related.
    A) experimental groups
    B) control groups
    C) variables
    D) scatterplots

74. A direct relationship in which two sets of scores increase together or decrease together represents
    A) a dependent variable.
    B) replication.
    C) a positive correlation.
    D) a confounding variable.

75. An inverse relationship in which scores for one variable increase as scores for another variable decrease represents
    A) a confounding variable.
    B) random assignment.
    C) replication.
    D) a negative correlation.

76. To determine whether the strength of people's self-esteem is related to their income levels, researchers would most likely make use of
    A) case studies.
    B) correlational research.
    C) experimentation.
    D) naturalistic observation.

77. A graphed cluster of dots, each of which represents the values of two factors, is called a
    A) replication.
    B) scatterplot.
    C) control group.
    D) correlation coefficient.

78. Displaying data in a scatterplot can help us see the extent to which two variables are
    A) random samples.
    B) operationally defined.
    C) correlated.
    D) replications.

79. If the correlation between the physical weight and reading ability of children is +0.85, this would indicate that
    A) there is very little statistical relationship between weight and reading ability among children.
    B) low body weight has a negative effect on the reading abilities of children.
    C) better reading ability is associated with greater physical weight among children.
    D) body weight has no causal influence on the reading abilities of children.

80. A correlation between physical attractiveness and dating frequency of +0.60 would indicate that
    A) physical attractiveness has no causal influence on dating frequency.
    B) more frequent dating is associated with lower levels of physical attractiveness.
    C) it is impossible to predict levels of physical attractiveness based on knowledge of dating frequency.
    D) less frequent dating is associated with lower levels of physical attractiveness.

81. If the points on a scatterplot are clustered in a pattern that extends from the upper left to the lower right, this would suggest that the two variables depicted are
    A) operationally defined.
    B) positively correlated.
    C) negatively correlated.
    D) not correlated.

82. Which of the following correlations between self-esteem and body weight would enable you to most accurately predict body weight from knowledge of level of self-esteem?
    A) +0.60
    B) +0.01
    C) –0.10
    D) –0.06

83. Which of the following correlation coefficients expresses the weakest degree of relationship between two variables?
    A) –0.12
    B) –0.99
    C) +0.25
    D) –0.50

84. A researcher would be most likely to discover a positive correlation between
    A) intelligence and academic success.
    B) poverty and physical health.
    C) self-esteem and depression.
    D) school grades and school absences.

85. If psychologists discovered that wealthy people are less satisfied with their marriages than poor people are, this would indicate that wealth and marital satisfaction are
    A) causally related.
    B) negatively correlated.
    C) independent variables.
    D) positively correlated.

86. If the correlation between children's intelligence and their creativity is +1.00, this would indicate that
    A) there is very little statistical relationship between the two variables.
    B) lower intelligence has a negative effect on creativity level.
    C) among children, increased creativity is associated with higher intelligence.
    D) level of intelligence has no causal influence on the creativity of children.

87. Illusory correlation refers to
    A) the perception of a relationship between two variables that does not exist.
    B) a correlation that exceeds the value of +1.00.
    C) a random cluster of points on a scatterplot.
    D) the belief that the correlation of two variables proves causation.

88. Gamblers often throw dice gently for low numbers and hard for high numbers. This most directly illustrates
    A) an illusion of control.
    B) a scatterplot.
    C) random assignment.
    D) regression toward the mean.

89. The illusion that uncontrollable events are correlated with our actions is facilitated by a phenomenon known as
    A) regression toward the mean.
    B) the correlation coefficient.
    C) random assignment.
    D) replication.

90. Regression toward the mean refers to the tendency for
    A) changes in one factor to predict changes in another factor.
    B) unusual events to be followed by more ordinary events.
    C) pessimistic thinking to trigger episodes of depression.
    D) a placebo pill to reduce suffering.

91. Colette received an unusually high grade of A on her first biology test and a B+ on the second, even though she studied equally for both tests. Which of the following best explains Colette's deteriorating pattern of performance?
    A) illusory correlation
    B) the illusion of control
    C) the random sampling effect
    D) regression toward the mean

92. After sports magazines give cover-story attention to the recent outstanding performances of an athlete, the individual often suffers a real decline in performance. This may be at least partially explained in terms of
    A) illusory correlation.
    B) the illusion of control.
    C) the placebo effect.
    D) regression toward the mean.

93. Dr. Cast has found that children who watch more television are more likely to be overweight. Which conclusion can he reach?
    A) Watching television causes obesity.
    B) Children who are obese like to watch television.
    C) Watching increased amounts of television is correlated with obesity.
    D) He cannot make any cause-effect statement.

94. Dr. Aubrey has researched media effects for the past three years and has repeatedly found that college students who report exposure to increased sexual content in the media are also more likely to report engaging in unprotected sex, having intercourse with multiple partners, and consuming alcohol or drugs prior to intercourse. What does this mean?
    A) Exposure to sexual content in the media causes risky sexual behaviors.
    B) College students who engage in risky sexual behaviors are drawn to sexually explicit media.
    C) Exposure to sexual content in the media is correlated with risky sexual behaviors.
    D) Dr. Aubrey cannot make any cause-effect statement.

95. The conclusion that "playing violent video games leads to violent crime" has been refuted by the American Psychological Association. Why was this statement problematic?
    A) It was derived from a survey study.
    B) Correlation does not prove causation.
    C) The experiment that reached this conclusion cannot be replicated.
    D) This finding is not problematic.

96. A recent report stating that "Eighty percent of prisoners in the United States were spanked as children" is problematic because
    A) it was derived from a survey study.
    B) correlation does not prove causation.
    C) the experiment that reached this conclusion cannot be replicated.
    D) This finding is not problematic.

97. What do the parallel research findings of "Eighty percent of prisoners in the United States were spanked as children" and "Seventy-five percent of college students in the United States were spanked as children" demonstrate?
    A) The survey method leads to causal results.
    B) Correlation does not prove causation.
    C) Experimental designs cannot be replicated.
    D) These statements do not demonstrate any problem.

98. Which research method assesses how well one variable predicts another without demonstrating a cause-effect relationship between the variables?
    A) naturalistic observation
    B) correlational research
    C) the case study
    D) the experimental method

99. Suppose that people who watch a lot of violence on TV are also particularly likely to behave aggressively. This relationship would NOT necessarily indicate that watching violence influences aggressive behavior because
    A) we most readily notice associations that confirm our beliefs.
    B) association does not prove causation.
    C) sampling extreme cases leads to false generalizations.
    D) the sample may have been randomly selected.

100. An extensive survey revealed that children with relatively high self-esteem tend to picture God as kind and loving, whereas those with lower self-esteem tend to perceive God as angry. The researchers concluded that the children's self-esteem had apparently influenced their views of God. This conclusion best illustrates the danger of
    A) failing to construct a scatterplot.
    B) generalizing from extreme examples.
    C) being influenced by a confounding variable.
    D) assuming that association proves causation.

101. If psychologists discovered that more intelligent parents have smarter children than less intelligent parents, this would demonstrate that
    A) intelligence is inherited.
    B) more intelligent parents provide their children with greater educational opportunities than do less intelligent parents.
    C) the intelligence of parents and children is positively correlated.
    D) all of these statements are correct.

102. A negative correlation between degree of wealth and likelihood of suffering from a psychological disorder would indicate that
    A) poverty makes people vulnerable to psychological disorders.
    B) people who are poor are more likely than wealthy people to have a psychological disorder.
    C) psychological disorders usually prevent people from accumulating wealth.
    D) all of these statements are correct.

103. Which of the following methods is most helpful for clarifying cause-effect relationships?
    A) the survey
    B) the experiment
    C) correlational research
    D) naturalistic observation

104. Researchers use experiments rather than other research methods in order to isolate
    A) facts from theories.
    B) causes from effects.
    C) case studies from surveys.
    D) random samples from representative samples.

105. The research method in which an investigator manipulates one or more factors to observe the effect on some behavior or mental process is called a(n)
    A) scientific method.
    B) operational definition.
    C) case study.
    D) experiment.

106. Experiments enable researchers to isolate the effects of one or more factors by
    A) manipulating the factors of interest.
    B) controlling for factors that are not of interest.
    C) both manipulating the factors of interest and controlling for factors that are not of interest.
    D) neither manipulating the factors of interest nor controlling for factors that are not of interest.

107. An experiment enables researchers to isolate the effects of one or more factors by manipulating the factors of interest and also by
    A) obtaining participants' informed consent prior to beginning the experiment.
    B) statistically summarizing participants' responses on a scatterplot.
    C) holding other factors constant across experimental and control groups.
    D) fully debriefing participants after completing the experiment.

108. British researchers randomly assigned 424 hospitalized premature infants either to formula feeding or to breast-milk feeding. They found that on intelligence tests taken at the age of 8, those who were breast fed significantly scored higher than those who were formula fed. These researchers conducted a(n):
    A) survey.
    B) naturalistic observation.
    C) experiment.
    D) correlational design.

109. The most reliable way of testing whether a newly introduced method of psychological therapy is truly effective is to use
    A) survey research.
    B) naturalistic observation.
    C) correlational research.
    D) experimental research.

110. In which type of research would an investigator manipulate at least one factor and observe its effect on some behavior or mental process?
    A) the survey
    B) the case study
    C) experimentation
    D) naturalistic observation

111. In a test of the effects of sleep deprivation on problem-solving skills, research participants are allowed to sleep either 4 or 8 hours on each of three consecutive nights. This research is an example of
    A) naturalistic observation.
    B) survey research.
    C) a case study.
    D) an experiment.

112. The group exposed to a newly created drug that is being tested in an experiment is called the _____ group.
    A) control
    B) standardized
    C) baseline
    D) experimental

113. Dr. Branch would like to study the relationship between room lighting and college students' test performance. He randomly assigns students to one of two groups. The first group takes an exam in a dimly lit room; the second group takes the same exam in a regularly lit room. Which is the experimental group?
    A) the group of students who were randomly assigned to one of the two conditions
    B) the group of students who took the exam in the dimly lit room
    C) the group of students who took the exam in the regularly lit room
    D) There is no experimental group because this is a naturalistic observation research design.

114. Professor X is studying the effect of exposure to sexual content on sexual thoughts. She assigns students to one of two conditions. In the first condition, participants are exposed to explicit sexual content and then given a word-completion task, which involves filling in the letter missing from each word. Based on the letter added, the word could be of a sexual nature or not. For instance, b_d could be completed as "bed," indicating sexual thought, or as "bad," which has no sexual connotation. In the second condition, participants are not exposed to explicit sexual content but are assigned the same word-completion task. The experimental group consisted of the students who
    A) were not exposed to explicit sexual content.
    B) were exposed to explicit sexual content.
    C) completed the word as "bad".
    D) completed the word as "bed".

115. Research participants drank either caffeinated or decaffeinated beverages in a study of the effects of caffeine on anxiety levels. Those who received the caffeinated drinks were assigned to the _____ group.
    A) survey
    B) experimental
    C) correlational
    D) control

116. To assess the effectiveness of flu vaccine for county residents, Mr. McCallum wants to administer vaccine injections to all county residents rather than give half of them a placebo injection. Mr. McCallum is most clearly underestimating the importance of
    A) testing a large sample.
    B) operationally defining his procedures.
    C) replicating observations of other researchers.
    D) creating a control group.

117. Which of the following is true for those assigned to a control group?
    A) The experimenter exerts the greatest influence on participants' behavior.
    B) The research participants are exposed to all the different experimental treatments.
    C) The research participants are exposed to the most favorable levels of experimental treatment.
    D) The experimental treatment is absent.

118. To study the potential effects of social interaction on problem solving, some research participants were instructed to solve problems by working together; other participants were told to solve problems by working alone. Those who worked alone were assigned to the _____ group.
    A) experimental
    B) survey
    C) control
    D) correlational

119. Being randomly assigned to the experimental group in a research project involves being assigned
    A) to that group by chance.
    B) to the group in which participants are representative of people in general.
    C) in a way that ensures that the independent variable will affect the dependent variable.
    D) to the group in which participants all have similar personalities.

120. To accurately isolate cause and effect, experimenters should use
    A) random assignment.
    B) naturalistic observation.
    C) case studies.
    D) correlation coefficients.

121. To assess the impact of test difficulty on persistence of effort, researchers plan to give one group of children relatively easy tests and another group more difficult tests. To reduce the chance that the children in one group are more intelligent than those in the other group, the researchers should make use of
    A) random assignment.
    B) the double-blind procedure.
    C) naturalistic observation.
    D) operational definitions.

122. Research participants are randomly assigned to different groups in an experiment in order to
    A) minimize chances that participants in any group know each other.
    B) increase chances that participants are representative of people in general.
    C) minimize any differences between groups of participants.
    D) increase chances that the different groups have the same number of participants.

123. One research team randomly assigned hospitalized premature infants either to formula feedings or to breast-milk feedings. Which research method did they use?
    A) case study
    B) experimentation
    C) naturalistic observation
    D) correlational research

124. Participants in an experiment are said to be *blind* if they are uninformed about
    A) what experimental hypothesis is being tested.
    B) whether the experimental findings will be meaningful.
    C) how the dependent variable is measured.
    D) which experimental treatment, if any, they are receiving.

125. Both the researchers and the participants in a memory study are ignorant about which participants have actually received a potentially memory-enhancing drug and which have received a placebo. This investigation involves the use of
    A) naturalistic observation.
    B) random sampling.
    C) the double-blind procedure.
    D) replication.

126. To minimize the extent to which outcome differences between experimental and control groups can be attributed to placebo effects, researchers make use of
    A) random sampling.
    B) the double-blind procedure.
    C) random assignment.
    D) operational definitions.

127. An inert substance that may be administered instead of a drug to see if it produces any of the same effects as the drug is called a
    A) placebo.
    B) scatterplot.
    C) case study.
    D) replication.

128. In a study of the effects of drinking alcohol, some participants drank a nonalcoholic beverage that actually smelled and tasted like alcohol. This nonalcoholic drink was a
    A) dependent variable.
    B) replication.
    C) placebo.
    D) double blind.

129. The relief of pain following the taking of an inactive substance that is perceived to have medicinal benefits illustrates
    A) random assignment.
    B) hindsight bias.
    C) debriefing.
    D) the placebo effect.

130. The placebo effect best illustrates the impact of _____ on feelings and behaviors.
    A) the double-blind procedure
    B) random sampling
    C) positive expectations
    D) regression toward the mean

131. In an experimental study, men with erectile disorder received either Viagra or a placebo. In this study, the drug dosage (none versus peak dose) was the
    A) confounding variable.
    B) dependent variable.
    C) operational definition.
    D) independent variable.

132. In a psychological experiment, the experimental factor that is manipulated by the investigator is called the _____ variable.
    A) dependent
    B) independent
    C) control
    D) experimental

133. In an experimental study of the impact of exposure to criticism on self-esteem, exposure to criticism would be the _____ variable.
    A) replicated
    B) dependent
    C) confounding
    D) independent

134. A factor other than the independent variable that might produce an effect in an experiment is called a
    A) wording effect.
    B) correlation coefficient.
    C) placebo effect.
    D) confounding variable.

135. Factors other than those of interest that can potentially influence the results of a study are called
    A) independent variables.
    B) dependent variables.
    C) confounding variables.
    D) randomly assigned variables.

136. To help control for possible confounding variables, researchers use
    A) experimental designs.
    B) the scientific method.
    C) random assignment.
    D) participation effects.

137. If participants in the experimental group of a drug treatment study are much younger than participants in the control group, the age of the research participants is a
    A) dependent variable.
    B) correlation coefficient.
    C) confounding variable.
    D) replication.

138. In a psychological experiment, the factor that may be influenced by the manipulated experimental treatment is called the _____ variable.
    A) dependent
    B) experimental
    C) control
    D) independent

139. Professor X is studying the effect of exposure to sexual content on sexual thoughts. She assigns students to one of two conditions. In the first condition, participants are exposed to explicit sexual content and then given a word-completion task, which involves filling in the letter missing from each word. Based on the letter added, the word could be of a sexual nature or not. For instance, b_d could be completed as "bed," indicating sexual thought, or as "bad," which has no sexual connotation. In the second condition, participants are not exposed to explicit sexual content but are assigned the same word-completion task. The dependent variable is
    A) sexual thought.
    B) the word-completion task.
    C) exposure to explicit sexual content.
    D) random assignment.

140. To assess the influence of self-esteem on interpersonal attraction, researchers either insulted or complimented students about their physical appearance just before they went on a blind date. In this research, the dependent variable was
    A) insults or compliments.
    B) physical appearance.
    C) interpersonal attraction.
    D) feelings of self-esteem.

141. An experiment was designed to study the potential impact of alcohol consumption on emotional stability. A specification of the procedures used to measure emotional stability illustrates
    A) the independent variable.
    B) an operational definition.
    C) the double-blind procedure.
    D) random assignment.

142. Assessing how well one variable predicts another variable is to _____ as detecting cause-effect relationships between different variables is to _____.
    A) naturalistic observation; case studies
    B) descriptive methods; correlational methods
    C) a control group; an experimental group
    D) correlational research; experimental research

143. Which of the following is NOT a weakness of the experimental method?
    A) lack of feasibility
    B) lack of control of variables
    C) reduced generalizability
    D) ethical limitations on manipulation of variables

144. The simplified reality of laboratory experiments is most helpful in enabling psychologists to
    A) predict human behavior in almost all situations.
    B) perceive order in completely random events.
    C) develop general principles that help explain behavior.
    D) observe random samples of human conduct.

145. Psychologists study animals because
    A) animal behavior is just as complex as human behavior.
    B) experiments on people are generally considered to be unethical.
    C) the ethical treatment of animals is not mandated by professional guidelines.
    D) similar processes often underlie animal and human behavior.

146. The first major issue that emerges in debates over experimenting on animals centers on the
    A) usefulness of studying biological processes in animals.
    B) ethics of placing the well-being of humans above that of animals.
    C) obligation to treat information about individual animals with confidentiality.
    D) need to obtain the informed consent of animals used in research.

147. A major issue that has emerged from debates over the use of animals in psychological research centers on
    A) whether operational definitions help to distinguish between animal and human functioning.
    B) when use of the double-blind procedure is most appropriate in animal studies.
    C) whether experimental methods can reduce the need for descriptive methods in research involving animals.
    D) what safeguards should protect the well-being of animals used in research.

148. Which of the following is NOT included in the ethics code of the APA for utilizing human participants in research?
    A) Researchers must obtain potential participants' informed consent to participate.
    B) Researchers must keep personal information of participants confidential.
    C) Researchers must fully debrief participants following participation in a research study.
    D) Researchers must report the results of individual participants.

149. Professor X is studying the effect of exposure to sexual content on sexual thoughts. She assigns students to one of two conditions. In the first condition, participants are exposed to explicit sexual content and then given a word-completion task, which involves filling in the letter missing from each word. Based on the letter added, the word could be of a sexual nature or not. For instance, b_d could be completed as "bed," indicating sexual thought, or as "bad," which has no sexual connotation. In the second condition, participants are not exposed to explicit sexual content but are assigned the same word-completion task. To ensure ethical treatment of participants, Professor X will NOT need to
    A) obtain participants' informed consent prior to participation.
    B) keep personal information about participants confidential.
    C) protect his participants from harm and discomfort.
    D) report the results of individual participants.

150. In an effort to prevent participants in an experiment from trying to confirm the researchers' predictions, psychologists sometimes
    A) obtain written promises from participants to respond honestly.
    B) treat information about individual participants confidentially.
    C) deceive participants about the true purpose of an experiment.
    D) allow people to decide for themselves whether they want to participate in an experiment.

151. Potential research participants are told enough about an upcoming study to enable them to choose whether they wish to participate. This illustrates the practice of seeking
    A) a representative sample.
    B) informed consent.
    C) an operational definition.
    D) a placebo effect.

152. The ethics codes of the American Psychological Association and the British Psychological Society urge researchers to
    A) avoid the use of monetary incentives in recruiting people to participate in research.
    B) forewarn potential research participants of the exact hypotheses that the research will test.
    C) avoid the manipulation of independent variables in research involving human participants.
    D) explain the research to the participants after the study has been completed.

153. After an experiment, research participants are told its purpose and about any deception they may have experienced. This is called
    A) debriefing.
    B) replication.
    C) informed consent.
    D) the double-blind procedure.

154. Psychologists' personal values
    A) are carefully tested by means of observation and experimentation.
    B) lead them to avoid experiments involving human participants.
    C) can bias their observations and interpretations.
    D) have very little influence on the process of scientific observation.

155. The study of psychology is potentially dangerous because
    A) psychological knowledge can be used for destructive purposes.
    B) psychologists generally believe that people are not personally responsible for their actions.
    C) psychological research usually necessitates performing stressful experiments on people.
    D) psychological research typically violates personal privacy rights.

156. The average price for different brands of toothpaste could be visually displayed in a(n)
    A) normal curve.
    B) extrapolation.
    C) standard deviation.
    D) bar graph.

157. When you read a bar graph, it is most important for you to
    A) mentally transform the data into a normal curve.
    B) identify the value of the standard deviation.
    C) note the range and size of the scale values.
    D) identify the correct measure of central tendency.

158. The most frequently occurring score in a distribution of scores is the
    A) mode.
    B) median.
    C) standard deviation.
    D) mean.

159. In a group of five individuals, two report annual incomes of $10,000, and the other three report incomes of $14,000, $15,000, and $31,000, respectively. The mode of this group's distribution of annual incomes is
    A) $10,000.
    B) $15,000.
    C) $16,000.
    D) $31,000.

160. The mean of a distribution of scores is the
    A) most frequently occurring score.
    B) arithmetic average of all the scores.
    C) least frequently occurring score.
    D) score exceeded by 50 percent of all the scores.

161. Which measure of central tendency is used to calculate the average of your school grades?
    A) standard deviation
    B) median
    C) mean
    D) mode

162. Mr. and Mrs. Klostreich have six children ages 5, 6, 6, 7, 8, and 16. The mean age of the Klostreich children is
    A) 5.
    B) 6.
    C) 7.
    D) 8.

163. The median of a distribution of scores is the
    A) most frequently occurring score.
    B) difference between the highest and lowest scores.
    C) arithmetic average of all the scores.
    D) middle score in a distribution of scores.

164. During the past year, Zara and Ivan each read 2 books, but George read 9, Ali read 12, and Marsha read 25. The median number of books read by these individuals was
    A) 2.
    B) 10.
    C) 12.
    D) 9.

165. Seven members of a boys' club reported the following individual earnings from their sale of cookies: $2, $9, $8, $10, $4, $9, and $7. In this distribution of individual earnings
    A) the median is greater than the mean and greater than the mode.
    B) the median is less than the mean and less than the mode.
    C) the median is greater than the mean and less than the mode.
    D) the median is less than the mean and greater than the mode.

166. Seven members of a Girl Scout troop report the following individual earnings from their sale of candy: $4, $1, $7, $6, $8, $2, and $7. In this distribution of individual earnings
    A) the mean is less than the mode and equal to the median.
    B) the mean is equal to the mode and greater than the median.
    C) the mean is greater than the mode and greater than the median.
    D) the mean is less than the mode and less than the median.

167. When an arithmetic average is reported in the news, it is most important for readers to
    A) determine whether it is statistically significant.
    B) consider whether it is distorted by a few extreme cases.
    C) be sure that it represents a standard deviation.
    D) assume that it is the midpoint of a normal curve.

168. For which of the following distributions of scores would the median most clearly be a more appropriate measure of central tendency than the mean?
    A) 10, 22, 8, 9, 6
    B) 12, 6, 8, 5, 4
    C) 12, 15, 12, 9, 12
    D) 23, 7, 3, 27, 16

169. When Mr. Adams calculated his students' algebra test scores, he noticed that two students had extremely low scores. Which measure of central tendency is affected most by the scores of these two students?
    A) mean
    B) standard deviation
    C) mode
    D) median

170. A lopsided distribution of scores in which the mean is much larger than both the mode and median is said to be
    A) statistically significant.
    B) extrapolated.
    C) a standard deviation.
    D) skewed.

171. Median is to range as central tendency is to _____.
    A) skewed distribution
    B) mode
    C) correlation
    D) variation

172. Central tendency is to variation as _____ is to _____.
    A) bar graph; normal curve
    B) range; skewed distribution
    C) mean; standard deviation
    D) median; mode

173. The difference between the highest and lowest scores in a distribution is the
    A) mean.
    B) range.
    C) median.
    D) standard deviation.

174. During the last Central High School basketball game, the starting five players scored 11, 7, 21, 14, and 7 points, respectively. For this distribution of scores, the range is
    A) 7.
    B) 11.
    C) 14.
    D) 21.

175. Which measure of variation is affected most by a few extreme scores?
    A) standard deviation
    B) mean
    C) median
    D) range

176. Which of the following is a measure of the degree of variation among a set of scores?
    A) mean
    B) mode
    C) standard deviation
    D) range

177. Evelyn wants to know how consistent her bowling scores have been during the past season. Which of the following measures would tell her what she wants to know?
    A) mean
    B) median
    C) standard deviation
    D) range

178. The standard deviation is the square root of the average squared deviation of scores from the
    A) normal curve.
    B) median.
    C) mean.
    D) range.

179. Although Dominick's psychology class is sometimes longer or shorter than usual, on average each class is 50 minutes. If the lengths of these classes form a normal curve, which statistic would enable Dominick to estimate the probability that any single class will last somewhere between 47 and 53 minutes?
    A) mean
    B) median
    C) range
    D) standard deviation

180. The symmetrical bell‑shaped figure used to represent the distribution of many physical and psychological characteristics is called a
    A) bar graph.
    B) normal curve.
    C) range.
    D) standard deviation.

181. A normal curve would approximate the distribution of
    A) males and females in the total American population.
    B) American children enrolled in each of the first through sixth grades.
    C) the physical heights of all American women.
    D) all of these data.

182. Approximately what percentage of the cases represented by the normal curve fall between –1 and +1 standard deviations from the mean?
    A) 16
    B) 34
    C) 68
    D) 95

183. If a set of standardized test scores is normally distributed, having a mean of 50 and a standard deviation of 10, approximately 68 percent of the group members receive scores somewhere between
    A) 50 and 60.
    B) 45 and 55.
    C) 40 and 60.
    D) 35 and 65.

184. Approximately 95 percent of the cases represented by the normal curve fall within _____ standard deviation(s) from the mean.
    A) 1
    B) 2
    C) 3
    D) 5

185. Approximately what percentage of the cases represented by the normal curve fall between –3 and +3 standard deviations from the mean?
    A) 34
    B) 68
    C) 95
    D) 100

186. If IQ scores are normally distributed, having a mean of 100 and a standard deviation of 15, approximately what percentage of people have IQ scores somewhere between 70 and 130?
    A) 34
    B) 50
    C) 68
    D) 95

187. Which of the following provides the best guidance on the significance of an observed difference between two research samples?
    A) a skewed distribution
    B) percentile scores
    C) inferential statistics
    D) bar graphs

188. Statistical reasoning can help us to generalize correctly from a
    A) range to a standard deviation.
    B) standard deviation to a mean.
    C) sample to a population.
    D) bar graph to a skewed distribution.

189. The precision with which a sample average approximates a population average increases as
    A) the standard deviation of the sample increases.
    B) the standard deviation of the sample decreases.
    C) the mean of the sample increases.
    D) the mean of the sample decreases.

190. A sample average can be used to estimate a population average with greater precision if the sample is
    A) large.
    B) a skewed distribution.
    C) highly variable.
    D) vivid and memorable.

191. Which of the following events is the most probable?
    A) flipping 6 or more heads in 10 coin flips
    B) flipping 60 or more heads in 100 coin flips
    C) flipping 600 or more heads in 1000 coin flips
    D) All these events are equally probable.

192. In a single day, 45 babies were born in hospital X, 65 babies in hospital Y, and 25 babies in hospital Z. At which hospital is there the greatest probability that more than 60 percent of the babies are of the same sex?
    A) hospital X
    B) hospital Y
    C) hospital Z
    D) The probability is the same at all three hospitals.

193. As the size of a representative sample increases, the _____ of that sample is most likely to decrease.
    A) range
    B) mean
    C) standard deviation
    D) median

194. _____ means that the observed differences between scores is probably not due to chance variation between the samples.
    A) Standard deviation
    B) Statistical significance
    C) The range
    D) The normal curve

195. Differences between two sample averages are most likely to be statistically significant if
    A) the difference between the samples is large.
    B) the standard deviations of the samples are large.
    C) both samples are drawn from the same population.
    D) the sample means are larger than the sample medians.

196. To decide whether observed differences between samples reflect actual differences between populations, you should determine the _____ of the observed differences.
    A) mean
    B) median
    C) standard deviation
    D) statistical significance

197. A statistically significant difference between two sample groups is NOT likely to be
    A) a reflection of differences between the populations they represent.
    B) due to chance variation within and between the sample groups.
    C) observed more than 5 percent of the time the groups are compared.
    D) observed when the two groups are very large.

Answer Key

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

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

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

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

183. C
184. B
185. D
186. D
187. C
188. C
189. B
190. A
191. A
192. C
193. C
194. B
195. A
196. D
197. B

1. After the horror of 9/11, many people said the American government should obviously have foreseen the likelihood of this form of terrorism. This perception most clearly illustrates
   A) overconfidence.
   B) hindsight bias.
   C) random sampling.
   D) naturalistic observation.

2. Political officials who have no doubt that their own economic and military predictions will come true most clearly demonstrate
   A) hindsight bias.
   B) random assignment.
   C) overconfidence.
   D) the placebo effect.

3. Psychologist Philip Tetlock collected more than 27,000 expert predictions of world events. He repeatedly found that experts were _____ percent confident in their prediction but were correct less than _____ percent of the time.
   A) 40; 80
   B) 50; 70
   C) 60; 20
   D) 80; 40

4. The tendency to perceive meaningful patterns in random sequences of outcomes often leads us to underestimate the extent to which outcomes result from
   A) a placebo effect.
   B) psychic powers.
   C) hidden values.
   D) chance.

5. Which of the following is NOT a roadblock to critical thinking?
   A) hindsight bias
   B) overconfidence
   C) scientific inquiry
   D) perceiving patterns in random events

6. A self-correcting process for evaluating ideas with observation and analysis is known as
   A) a scientific attitude.
   B) the scientific method.
   C) hindsight bias.
   D) perceiving patterns in random events.

7. Stacey suggests that because children are more impulsive than adults, they will have more difficulty controlling their anger. Stacey's prediction regarding anger management is an example of
   A) a hypothesis.
   B) informed consent.
   C) an operational definition.
   D) the placebo effect.

8. Professor Carter observes and records the behavior of grocery shoppers as they select items to purchase. Which type of research is Professor Carter using?
   A) survey research
   B) case study
   C) experimentation
   D) naturalistic observation

9. A negative correlation between people's work-related stress and their marital happiness would indicate that
   A) work-related stress has a negative impact on marital happiness.
   B) marital unhappiness promotes work-related stress.
   C) higher levels of marital happiness are associated with lower levels of work-related stress.
   D) marital happiness has no causal influence on work-related stress.

10. When people's negative moods are at their worst, whatever they do to try to alleviate the condition is likely to be followed by an improvement in their mood rather than further worsening. This is best explained in terms of
    A) random assignment.
    B) illusory correlation.
    C) informed consent.
    D) regression toward the mean.

11. Which method offers the most reliable way of assessing whether athletic performance is boosted by drinking soda with caffeine in it?
    A) the survey
    B) the case study
    C) the experiment
    D) naturalistic observation

12. In drug-treatment studies, double-blind procedures minimize outcome differences between experimental and control conditions that could be attributed to
    A) replication.
    B) operational definitions.
    C) random sampling.
    D) placebo effects.

13. To assess whether sense of humor is affected by sexual stimulation, researchers exposed married couples to either sexually stimulating or to sexually nonstimulating movie scenes prior to watching a comedy skit. In this research, the independent variable consisted of
    A) reactions to the comedy skit.
    B) level of sexual stimulation.
    C) marital status.
    D) sense of humor.

14. In an experimental study of the extent to which mental alertness is inhibited by sleep deprivation, mental alertness would be the
    A) control condition.
    B) independent variable.
    C) experimental condition.
    D) dependent variable.

15. Which research design can uncover naturally occurring relationships?
    A) survey
    B) naturalistic observation
    C) experiment
    D) correlational design

16. Ethical principles developed by psychologists urge investigators to
    A) avoid the use of animals in experimental research.
    B) minimize the use of the double-blind procedure with human research participants.
    C) treat information about individual research participants confidentially.
    D) avoid the use of financial incentives in any kind of research.

17. One person in a 10-person group is 10 times older than anyone else in the group. With respect to age, it is most likely that the majority of group members are younger than the group's
    A) mode.
    B) median.
    C) mean.
    D) standard deviation.

18. Janet has five brothers who are 4, 6, 6, 9, and 15 years of age. The mean age of Janet's brothers is
    A) 6.
    B) 7.
    C) 8.
    D) 9.

19. The maximum height of a normal curve corresponds to the _____ of a normal distribution.
    A) range
    B) mean
    C) standard deviation
    D) statistical significance

20. Mrs. Smith is measuring the height of all the children in her class and notices that the scores form a symmetrical, bell-shaped distribution. This is also known as the
    A) central tendency.
    B) range.
    C) normal curve.
    D) standard deviation.

21. Random samples provide _____ estimates of population averages if the samples have small _____.
    A) good; means
    B) good; standard deviations
    C) poor; means
    D) poor; standard deviations

Answer Key

1. B
2. C
3. A
4. D
5. C
6. B
7. A
8. D
9. C
10. D
11. C
12. D
13. B
14. D
15. D
16. C
17. C
18. C
19. B
20. C
21. B

1. Hindsight bias leads people to perceive psychological research outcomes as
   A) unpredictable.
   B) inexplicable.
   C) unlikely.
   D) unsurprising.

2. Jamie and Lynn were sure that they had answered most of the multiple-choice questions correctly because "the questions required only common sense." However, they each scored less than 60% on the exam. This best illustrates
   A) a confounding variable.
   B) random assignment.
   C) hindsight bias.
   D) overconfidence.

3. Brandon reads his psychology text regularly and attends class most days, so he felt prepared when he took the midterm exam. He just knew he aced the test. When his Professor returned his exam, he found that he earned a C. What happened?
   A) Brandon experienced hindsight bias.
   B) Brandon was overconfident.
   C) Brandon engaged in scientific inquiry.
   D) Brandon perceived a pattern in random events.

4. If someone were to flip a coin six times, which of the following sequences of heads (H) and tails (T) would be most likely?
   A) H H H T T T
   B) H T T H T H
   C) T T H H T H
   D) All of these sequences would be equally likely.

5. Which of the following can help us sift reality from illusion?
   A) intuition
   B) scientific inquiry
   C) overconfidence
   D) hindsight bias

6. Which of the following is NOT a characteristic of a useful theory?
   A) It organizes observations.
   B) It cannot be refuted.
   C) It implies predictions that anyone can use to check the theory or to derive practical applications.
   D) It stimulates further research that may lead to a revised theory that better organizes and predicts.

7. Sigmund Freud, Abraham Maslow, Erik Erikson, and Carl Rogers all developed ways to explain behaviors or events by offering ideas that organize observations. Their ideas are called
   A) theories.
   B) patterns in random events.
   C) the scientific method.
   D) scientific inquiry.

8. Psychological theories help to
   A) organize scientific observations.
   B) explain observed facts.
   C) generate hypotheses.
   D) do all of these things.

9. Which research method runs the greatest risk of collecting evidence that may be unrepresentative of what is generally true?
   A) naturalistic observation
   B) the case study
   C) experimentation
   D) the survey

10. Every twenty-fifth person who subscribed to a weekly news magazine was contacted by market researchers to complete a survey of opinions regarding the magazine's contents. The researchers were applying the technique known as
   A) naturalistic observation.
   B) the double-blind procedure.
   C) random sampling.
   D) replication.

11. In studying the relationship between body weight and popularity, Professor Vescio is attempting to determine the correlation between two
    A) replications.
    B) variables.
    C) random samples.
    D) placebos.

12. A correlation of +0.70 between children's physical height and their popularity among their peers indicates that
    A) higher levels of popularity among peers are associated with greater physical height in children.
    B) there is no relationship between children's height and their popularity.
    C) being unusually short or tall has a negative impact on children's popularity.
    D) children's height has no causal impact on their popularity.

13. To test the potential effect of hunger on taste sensitivity, groups of research participants are deprived of food for differing lengths of time before they engage in a taste-sensitivity test. This research is an example of
    A) correlational research.
    B) an experiment.
    C) survey research.
    D) naturalistic observation.

14. In a study of factors that might affect memory, research participants were assigned to drink either an alcoholic or a nonalcoholic beverage prior to completing a memory test. Those who drank the nonalcoholic beverage were assigned to the _____ group.
    A) survey
    B) control
    C) experimental
    D) correlational

15. Researchers control factors that might influence a dependent variable by means of
    A) random assignment.
    B) replication.
    C) naturalistic observation.
    D) operational definitions.

16. In an experimental study of the effects of dieting on weight loss, dieting would be the
    A) control condition.
    B) independent variable.
    C) dependent variable.
    D) placebo.

17. In a well-controlled experiment, researchers seek to minimize
    A) confounding variables.
    B) informed consent.
    C) replication.
    D) random assignment.

18. Which of the following processes typically takes place shortly after people complete their participation in a research study?
    A) random assignment
    B) informed consent
    C) the double-blind procedure
    D) debriefing

19. Ahmed has five sisters who are 3, 3, 5, 9, and 10 years of age. The number "5" represents the _____ of the sisters' ages.
    A) mode
    B) median
    C) mean
    D) range

20. The _____ can be a particularly misleading indication of what is average for a _____ distribution of scores.
    A) mean; skewed
    B) median; skewed
    C) mean; normal
    D) median; normal

21. To provide a rough estimate of how similar or diverse a set of scores is, we should calculate the
    A) standard deviation.
    B) mean.
    C) median.
    D) range.

22. The _____ is a measure of _____.
    A) median; variation
    B) range; central tendency
    C) standard deviation; variation
    D) normal curve; central tendency

23. Differences between two samples are LEAST likely to be statistically significant if the samples are _____ and the standard deviations of the samples are _____.
    A) small; small
    B) large; large
    C) small; large
    D) large; small

Answer Key

1. D
2. D
3. B
4. D
5. B
6. B
7. A
8. D
9. B
10. C
11. B
12. A
13. B
14. B
15. A
16. B
17. A
18. D
19. B
20. A
21. D
22. C
23. C

1. When your best friend hears that you are taking a psychology course, she asserts that psychology is simply common sense. Explain why your awareness of both the limits of everyday reasoning and the methods of psychological research would lead you to disagree with your friend's assertion.

2. Explain how research in psychological science is used to create, test, and verify or disprove various theories.

3. The table below lists the scores of eight students on a test to measure anxiety, as well as the typical number of cigarettes each person smokes daily. Scores on the anxiety test can range anywhere from a low of 0 (indicating very low anxiety) to a high of 30 (indicating very high anxiety).

Student	Anxiety Test Score	Cigarettes Smoked Daily
1	8	11
2	9	3
3	15	11
4	14	16
5	21	26
6	12	10
7	22	24
8	17	18

   Construct a scatterplot to represent the correlation between smoking and anxiety. Describe the direction of the correlation and give two possible explanations for it.

4. Design an experiment to test whether playing violent video games influences childhood aggression. Be sure to specify your experimental hypothesis and identify your dependent and independent variables, as well as your experimental and control conditions. Identify any experimental procedures that would help to ensure the reliability of your research.

5. Dr. Schmidt would like to investigate the effectiveness of a newly invented drug to treat clinical depression. Specifically, he would like to determine if it is more effective than current medications for this disorder. With this in mind, design an experiment using the double-blind procedure and explain how the placebo effect could impact the results of this study. Be sure to identify your dependent and independent variables, as well as any confounding variables. Also, specify your experimental and control conditions. Identify any experimental procedures that would help to ensure the reliability of your research.

6. To investigate the impact of alcohol consumption on sexual arousal, researchers plan to give experimental participants either an alcoholic or a nonalcoholic drink just prior to their watching a sexually arousing movie. Describe the appropriate ethical guidelines that the researchers would need to meet in order to conduct this study.

7. Five students received the following test scores: 7, 11, 5, 6, and 11. Calculate the mode, median, mean, and range of this distribution of scores. Which measure of central tendency would change the most if an additional test score of 2 was included in the distribution?

Answer Key

1.
2.
3.
4.
5.
6.
7.

1. The Presidential election is quickly approaching. Prior to the election, the two major party candidates seem to be tied. After the winner is announced, Frances proclaims, “I knew he/she would win! He/She ran a great campaign.” This is an example of
   A) hindsight bias.
   B) overconfidence.
   C) scientific inquiry.
   D) perceiving patterns in random events.

2. Hindsight bias often leads us to place too much faith in
   A) random sampling.
   B) wording effects.
   C) human intuition.
   D) random assignment.

3. Hindsight bias most directly contributes to the perception that
   A) psychological theories are simply reflections of researchers' personal values.
   B) psychological research studies are simplified versions of reality.
   C) psychological theories and observations are merely common sense.
   D) psychological research studies are potentially dangerous.

4. Alexandra is told that research supports the value of cosmetic surgery for boosting self-esteem. Belinda is told that the esteem-enhancing value of cosmetic surgery has been refuted by research. Both women consider the research findings to be common sense. This best illustrates the power of
   A) the placebo effect.
   B) hindsight bias.
   C) random assignment.
   D) the double-blind procedure.

5. A psychologist notes that we are especially attracted to people whose traits are different from our own. This statement would seem unsurprising to students because
   A) most students have often been attracted to people different from themselves.
   B) this finding is consistent with common sense.
   C) students are eager to interact with those who are different from themselves.
   D) the students have a tendency to exaggerate their ability to have foreseen the outcome of past discoveries.

6. According to Emily's grandfather, Adolf Hitler's obvious emotional instability made it clear from the beginning of his international conflicts that Germany would inevitably lose World War II. The grandfather's claim best illustrates
   A) hindsight bias.
   B) the placebo effect.
   C) naturalistic observation.
   D) random sequencing.

7. Dr. Donelian wants to reduce his students' perceptions that psychological research merely documents the obvious. His best strategy would be to ask the students to
   A) describe how research predictions were derived from basic psychological principles.
   B) predict the outcomes of research studies before they are told the actual results.
   C) explain the outcomes of research studies after they are told the actual results.
   D) engage in naturalistic observation.

8. When provided with the unscrambled solutions to anagrams, people underestimate the difficulty of solving the anagrams. This best illustrates
   A) confounding variables.
   B) perceiving order in random events.
   C) wording effects.
   D) overconfidence.

9. As students prepare for a test, they often believe that they understand the course material better than they actually do. This best illustrates
   A) overconfidence.
   B) random assignment.
   C) hindsight bias.
   D) the placebo effect.

10. Thinking that she had outperformed most of her classmates, Glenda was surprised to receive just an average grade on her psychology test. Glenda's experience best illustrates
    A) overconfidence.
    B) hindsight bias.
    C) the placebo effect.
    D) perceiving order in random events.

11. After incorrectly predicting world events, such as whether Quebec would separate from Canada, experts maintained that they were "almost right." This attitude is an example of
    A) overconfidence.
    B) hindsight bias.
    C) critical thinking.
    D) a chance-related explanation.

12. The King James Version of the Bible was completed when William Shakespeare was 46 years old. In Psalm 46 of this translation, the forty-sixth word is "shake," and the forty-sixth word from the end is "spear." Before concluding that the biblical translators were trying to be humorous with these specific word placements, you would be best advised to recognize the danger of
    A) random sampling biblical passages.
    B) generalizing from extreme instances.
    C) assuming that most people share your opinions.
    D) perceiving order in coincidental events.

13. Which of the following is not an attribute of the scientific attitude?
    A) curiosity
    B) skepticism
    C) humility
    D) hindsight

14. An explanation using an integrated set of principles that organizes observations and predicts behaviors or events is called a(n)
    A) independent variable.
    B) hypothesis.
    C) theory.
    D) scatterplot.

15. According to Professor Fayad, we like people who like us because their affection for us boosts our own self-esteem. His idea is an example of
    A) an operational definition.
    B) informed consent.
    C) replication.
    D) a theory.

16. The value of a(n) _____ is most closely tied to its usefulness in generating testable hypotheses.
    A) operational definition
    B) case study
    C) replication
    D) theory

17. A testable prediction that is often implied by a theory is called a(n)
    A) naturalistic observation.
    B) operational definition.
    C) dependent variable.
    D) hypothesis.

18. Hypotheses are best described as
    A) assumptions.
    B) replications.
    C) explanations.
    D) predictions.

19. Dr. Birk suggests that because depression is associated with pessimistic thinking, depressed students would be more likely than nondepressed students to perceive themselves as academically incompetent. Dr. Birk's prediction regarding students' self-perceptions is an example of a(n)
    A) illusory correlation.
    B) placebo effect.
    C) confounding variable.
    D) hypothesis.

20. Professor Albertson believes that having a best friend in middle school is associated with increased self-esteem among girls. His idea is called a(n)
    A) theory.
    B) hypothesis.
    C) operational definition.
    D) hunch.

21. Dr. Carlson believes that family environment, neighborhood context, socioeconomic status, and parental discipline are all related to childhood aggression. This idea is called a(n)
    A) theory.
    B) hypothesis.
    C) operational definition.
    D) hunch.

22. A statement describing how a researcher manipulates an independent variable is known as a(n)
    A) control condition.
    B) replication.
    C) operational definition.
    D) hypothesis.

23. In reporting the effect of drinking alcohol on self-consciousness, psychological researchers would specify exactly how they measured self-consciousness. They are thereby providing a(n)
    A) experimental hypothesis.
    B) case study.
    C) double-blind procedure.
    D) operational definition.

24. Operational definitions are most likely to facilitate
    A) replication.
    B) positive correlations.
    C) regression toward the mean.
    D) the placebo effect.

25. Replication involves
    A) the selection of random samples.
    B) randomly assigning research participants to different groups.
    C) repeating an earlier research study.
    D) rejecting ideas that cannot be scientifically tested.

26. To verify the reliability of a new scientific finding, psychological researchers are most likely to engage in
    A) naturalistic observation.
    B) random sampling.
    C) replication.
    D) positive correlation.

27. Professor Bolden claims that his experimental research demonstrates that eating an apple every day improves children's reading skills. How might he best offer further support for the reliability of this finding?
    A) replication
    B) naturalistic observation
    C) case studies
    D) correlational research

28. Carl Jung, Sigmund Freud, Albert Bandura, and Abraham Maslow all proposed _____ that they believed would explain personality development.
    A) theories
    B) patterns in random events
    C) the scientific method
    D) scientific inquiry

29. Howard Gardner, Robert Sternberg, and Charles Spearman developed different _____ regarding intelligence.
    A) theories
    B) patterns in random events
    C) scientific methods
    D) scientific inquiries

30. Case studies have helped us to understand psychological concepts related to
    A) brain damage.
    B) childhood cognition.
    C) animal intelligence.
    D) all of these instances.

31. A descriptive method in which one individual or group is studied in great depth is called a(n)
    A) replication.
    B) case study.
    C) experiment.
    D) double-blind procedure.

32. To better understand how brain malfunctions influence behavior, Dr. Mosher extensively and carefully observes and questions two stroke victims. Which research method is Dr. Mosher using?
    A) random sampling
    B) the survey
    C) the case study
    D) experimentation

33. Jean Piaget developed his ideas about children's thinking after carefully observing and questioning only a few children. Which research method did he use?
    A) the survey
    B) the double-blind procedure
    C) the case study
    D) random assignment

34. Those who rely on the case-study method need to be especially alert to the dangers of
    A) the double-blind procedure.
    B) replication.
    C) random assignment.
    D) false generalization.

35. After carefully studying how three single parents dealt with the loss of their jobs, Dr. Phong began to overestimate the national rate of unemployment. In this instance, Dr. Phong should be warned that _____ may be misleading.
    A) surveys
    B) case studies
    C) dependent variables
    D) random samples

36. Professor Johnson is interested in how people behave while taking public transportation. To find out, he rides the city bus for four consecutive hours every day over a two-week period . Which research method is he using?
    A) case study
    B) experiment
    C) naturalistic observation
    D) survey

37. Naturalistic observation is most useful for
    A) describing behaviors.
    B) predicting attitudes.
    C) explaining complex emotions.
    D) detecting cause-effect relationships.

38. Using data from Facebook, researchers have found that people from countries with lower economic status are more likely to solicit Facebook friendship with those in higher-status countries than vice versa. This information was obtained by means of
    A) case studies.
    B) experimentation.
    C) naturalistic observation.
    D) surveys.

39. A count of positive and negative words in millions of Twitter messages suggests that people seem happiest on
    A) Mondays.
    B) Wednesdays.
    C) Fridays.
    D) Sundays.

40. One study found that the proportion of anger-related words in 148 million tweets from 1347 U.S. counties predicted the counties' heart disease rates. This research best illustrates the use of
    A) a case study.
    B) experimentation.
    C) a survey.
    D) naturalistic observation.

41. Which research method would be most effective for identifying the mating rituals of North American deer?
    A) survey research
    B) naturalistic observation
    C) experimentation
    D) the double-blind procedure

42. In comparing the pace of life in 31 countries, Robert Levine and Ara Norenzayan found that the pace is fastest in Japan and Western Europe and slower in economically less-developed countries. What research method did they use?
    A) case study
    B) experiment
    C) naturalistic observation
    D) survey

43. To describe the behavior of animals in their native habitat, researchers are most likely to make use of
    A) survey research.
    B) random assignment.
    C) experimental methods.
    D) naturalistic observation.

44. To study the development of relationships, Dr. Rajiv carefully observed and recorded patterns of verbal and nonverbal behaviors among men and women in singles bars. Which research method did Dr. Rajiv employ?
    A) naturalistic observation
    B) the survey
    C) the case study
    D) experimentation

45. Researchers make no effort to manipulate or control factors when they engage in
    A) naturalistic observation.
    B) the double-blind procedure.
    C) replication.
    D) experimentation.

46. Dr. Reed is studying risky sexual behaviors among college students. Which research method is she most likely to use?
    A) survey
    B) experiment
    C) case study
    D) naturalistic observation

47. The finding that 68 percent of people say that religion is important in their daily life was derived from the use of which research method?
    A) survey
    B) experiment
    C) case study
    D) naturalistic observation

48. The survey is a research method in which
    A) individuals are carefully observed in their natural environment.
    B) a representative random sample of individuals are questioned regarding their attitudes or behaviors.
    C) an individual or group is studied in great depth.
    D) an investigator determines the extent to which two variables influence each other.

49. Which of the following techniques would be the most effective way of investigating the relationship between the political attitudes and the economic status of North Americans?
    A) the survey
    B) naturalistic observation
    C) experimentation
    D) the case study

50. A majority of respondents in a national survey agreed that "classroom prayer should not be allowed in public schools." Only 33 percent of respondents in a similar survey agreed that "classroom prayer in public schools should be banned." These differing findings best illustrate the importance of
    A) representative samples.
    B) the placebo effect.
    C) random assignment.
    D) wording effects.

51. Researchers examining people's opinion on same-sex marriage have found that respondents are more likely to support references to “marriage equality” than “gay marriage.” This finding demonstrates
    A) random sampling.
    B) naturalistic observation.
    C) wording effects.
    D) the case study.

52. Each time Samantha has observed a person using government food vouchers to pay for groceries, the person has been an Hispanic female. Samantha has fallen victim to
    A) sampling bias.
    B) naturalistic observation.
    C) a case study.
    D) random sampling.

53. Researchers observe random samples because these samples are likely to be
    A) easy to observe.
    B) homogeneous.
    C) representative.
    D) easy to debrief.

54. The children in Mrs. Shashoua's neighborhood make fun of her limp. She concludes that today's kids are typically cruel and insensitive. Mrs. Shashoua ought to remind herself that reasonable generalizations depend on
    A) observing representative samples.
    B) recognizing that others may not share our opinions.
    C) realizing that correlation does not mean causation.
    D) eliminating confounding variables.

55. Mrs. Blair concludes that boys do not read as well as girls because most of the students in her remedial reading classes are boys. Mrs. Blair's conclusion best illustrates the danger of
    A) random assignment.
    B) generalizing from vivid cases.
    C) confusing correlation with causation.
    D) random sampling.

56. The whole group from which samples may be drawn is called a(n)
    A) control condition.
    B) population.
    C) case study.
    D) independent variable.

57. To learn about the political attitudes of all students enrolled at Arizona State University, Professor Marlow randomly selected 800 of these students to complete a questionnaire. In this instance, all the students enrolled at Arizona State University are considered to be a(n)
    A) independent variable.
    B) representative sample.
    C) control condition.
    D) population.

58. A random sample of a large group of people is one in which
    A) the number of people included in the sample is determined by chance.
    B) every person in the large group has an equal chance of being included in the sample.
    C) personality differences among those in the sample are practically nonexistent.
    D) all of these situations are true.

59. Which procedure helps to ensure that the participants in a survey are representative of a larger population?
    A) random assignment
    B) replication
    C) naturalistic observation
    D) random sampling

60. Website polls and call-in phone surveys often yield unrepresentative results because they fail to use
    A) operational definitions.
    B) random sampling.
    C) scatterplots.
    D) double-blind procedures.

61. Which of the following is a measure of the extent to which two factors vary together?
    A) replication
    B) experimentation
    C) correlation
    D) extrapolation

62. The statistical measure that reveals the extent to which two things relate is called
    A) naturalistic observation.
    B) meta-analysis.
    C) a correlation coefficient.
    D) a survey.

63. Professor Stevens has found that students who tend to sit at the front of the classroom often perform better on class assessments. Based on his observations, he can say which of the following?
    A) Students who sit at the front of the class are more motivated to learn.
    B) Students who sit at the back of the class are lazy.
    C) Sitting in the front of the class is correlated with higher grades.
    D) Professor Stevens cannot make any cause-effect statement.

64. Dr. C has found that teenagers whose parents read to them as children are more likely to do well academically. He can reach which conclusion?
    A) Reading to children causes high academic performance.
    B) Teenagers who are naturally intelligent are more likely to be interested in books as children.
    C) Reading to children is correlated with high academic performance.
    D) Dr. C cannot make any cause-effect statement.

65. A correlation coefficient is a
    A) confounding variable.
    B) statistical index.
    C) dependent variable.
    D) double-blind procedure.

66. A correlation coefficient is a statistical measure of
    A) the tendency for extreme scores to fall back toward the average.
    B) a statistical measure of the extent to which two factors vary together.
    C) a graphed cluster of dots, each of which represents the value of two variables.
    D) the perception of a relationship where none exists.

67. Which of the following statistical measures is most helpful for indicating the extent to which high school grades predict college or university grades?
    A) a scatterplot
    B) a random sample
    C) a correlation coefficient
    D) an independent variable

68. In assessing the extent to which death rates increase as people age, researchers are using correlational research to learn how two _____ are related.
    A) random samples
    B) case studies
    C) statistical indexes
    D) variables

69. A scatterplot graphically depicts the
    A) standard deviation of a distribution of scores.
    B) arithmetic average of a distribution of scores.
    C) total population from which samples may be drawn.
    D) degree of relationship between two variables.

70. A correlation coefficient can range in value from
    A) 0 to 100.
    B) 0 to 1.00.
    C) 1 to 99.
    D) –1.00 to +1.00.

71. Which of the following correlations between annual income and education level would best enable you to predict annual income on the basis of level of education?
    A) +0.05
    B) –0.01
    C) +0.10
    D) +0.50

72. Which of the following correlations expresses the strongest degree of relationship between two variables?
    A) +0.10
    B) –0.67
    C) –0.10
    D) +0.59

73. A correlation between levels of impulsiveness and annual income of –0.75 would indicate that
    A) lower levels of impulsiveness are associated with lower levels of annual income.
    B) higher levels of annual income are associated with lower levels of impulsiveness.
    C) it is impossible to predict annual income levels from knowledge of impulsiveness levels.
    D) impulsiveness has no causal influence on annual income.

74. If university graduates typically earn more money than high school graduates, this would indicate that level of education and income are
    A) positively correlated.
    B) independent variables.
    C) dependent variables.
    D) negatively correlated.

75. A researcher would be most likely to discover a negative correlation between
    A) body height and body weight.
    B) self-esteem and depression.
    C) education and personal wealth.
    D) intelligence and academic success.

76. Gene believes he is much more likely to win the state lottery if he chooses the numbers than if the numbers are randomly generated by a computer program. Gene's belief best illustrates
    A) regression toward the mean.
    B) an independent variable.
    C) an illusion of control.
    D) a scatterplot.

77. Akira dreamed that a handsome young man she had met the previous day asked her for a date. When he actually did call for a date several days later, Akira concluded that dreams accurately predict future events. Her belief best illustrates
    A) regression toward the mean.
    B) an illusory correlation.
    C) random assignment.
    D) a scatterplot.

78. Which statistical phenomenon refers to the tendency for extraordinary or unusual events to be followed by more ordinary events?
    A) random sampling
    B) replication
    C) regression toward the mean
    D) illusory correlation

79. Students who score much higher on an exam than they usually do can reasonably anticipate _____ scores when they are retested.
    A) very low
    B) somewhat lower
    C) equally high
    D) even higher

80. Unusual ESP subjects who defy chance when first tested nearly always lose their "psychic powers" when retested. This decline is best explained in terms of
    A) illusory correlation.
    B) regression toward the mean.
    C) a placebo effect.
    D) a confounding variable.

81. Although Soren once scored 37 points during a single high school basketball game, he was subsequently unable to beat or match this record no matter how hard he tried. His experience may be at least partially explained in terms of
    A) an illusion of control.
    B) regression toward the mean.
    C) illusory correlation.
    D) random assignment.

82. Why is the finding that "increased parental support for college results in lower grades" is problematic?
    A) It was derived from a survey.
    B) Correlation does not prove causation.
    C) The experiment that reached this conclusion cannot be replicated.
    D) This finding is not problematic.

83. Why is the finding that “people with mental illness are more likely to smoke” problematic?
    A) It was derived from a survey.
    B) Correlation does not prove causation.
    C) The experiment that reached this conclusion cannot be replicated.
    D) This finding is not problematic.

84. Why is the report that “teens who do not get enough sleep are at an increased risk for mental health problems” problematic?
    A) It was derived from a survey study.
    B) Correlation does not mean causation.
    C) The experiment that reached this conclusion cannot be replicated.
    D) This finding is not problematic.

85. If those with low self-esteem are also particularly likely to suffer from depression, this would not necessarily indicate that low self-esteem triggers negative emotions because
    A) sampling extreme cases leads to false generalizations.
    B) a placebo effect may be operating.
    C) association does not prove causation.
    D) confounding variables may have an effect.

86. Following the scientific discovery that a specific brain structure is significantly larger in violent individuals than in those who are nonviolent, a news headline announced: “Enlarged Brain Structure Triggers Violent Acts.” The headline writer should most clearly be warned about the dangers of
    A) the placebo effect.
    B) regression toward the mean.
    C) confusing association with causation.
    D) generalizing from unrepresentative samples.

87. If psychologists discovered that people who live in poverty have more aggressive children than wealthy people, this would clearly indicate that
    A) poverty has a negative influence on children's behavior.
    B) the factors that lead to poverty also cause aggressive behavior.
    C) people's economic status and the aggressiveness of their children are negatively correlated.
    D) all of these statements are correct.

88. An experiment is defined as a
    A) self-correcting process for asking questions and observing nature's answers.
    B) measure of the extent to which two factors vary together.
    C) research method in which an investigator manipulates one or more factors to observe the effect on some behavior or mental process.
    D) technique for obtaining the self-reported attitudes or behaviors of a particular group.

89. Incorrectly interpreting a correlation between two factors as evidence of causation is best avoided by making use of
    A) experiments.
    B) survey research.
    C) case studies.
    D) naturalistic observation.

90. Which research design manipulates a factor to determine its effect on another factor?
    A) survey
    B) naturalistic observation
    C) experiment
    D) correlational design

91. A research method in which an investigator manipulates factors that potentially produce a particular effect is called a(n)
    A) survey.
    B) experiment.
    C) case study.
    D) correlation.

92. The experiment is a research method in which
    A) a random sample of individuals are questioned about their opinions and behaviors.
    B) individuals are carefully observed in their natural environment.
    C) a researcher manipulates one or more factors that might affect behavior.
    D) an individual is studied in great depth.

93. To maximize control over the factors they are studying, researchers engage in
    A) case studies.
    B) correlational research.
    C) experimentation.
    D) surveys.

94. Which of the following research methods would most effectively demonstrate that regular aerobic exercise improves people's memories?
    A) experiment
    B) naturalistic observation
    C) survey
    D) case study

95. Experimentation is more useful than correlational research for testing the claim that
    A) children who view a great deal of television violence are also likely to be unusually aggressive.
    B) people who exercise frequently are less likely to suffer from depression than infrequent exercisers.
    C) people's friendliness and feelings of happiness are increased by the consumption of alcohol.
    D) people who drink higher-than-average amounts of coffee are also likely to drink higher-than-average amounts of tea.

96. Unlike correlational studies, experiments involve
    A) operationally defining research procedures.
    B) manipulating the factors of interest.
    C) studying observable behaviors.
    D) replication of previous research.

97. The most effective way of assessing the impact of hormone replacement therapy on women's health is by means of
    A) case studies.
    B) experiments.
    C) correlational measurement.
    D) naturalistic observations.

98. In an experiment, the experimental group is the group that
    A) receives a placebo.
    B) is informed about which treatment they are receiving.
    C) is exposed to the treatment being tested by the experiment.
    D) is not fully debriefed following the completion of the experiment.

99. In an experiment, the group that is not exposed to the treatment being tested is called the _____ group.
    A) standardized
    B) naturalistic
    C) placebo
    D) control

100. To provide a comparison for evaluating the effects of a specific treatment, experimenters make use of a(n)
    A) dependent variable.
    B) independent variable.
    C) control group.
    D) experimental group.

101. In an experiment designed to study the effectiveness of a new drug for treating diabetes, research participants who receive a placebo have been assigned to the _____ group.
    A) dependent variable
    B) correlational
    C) experimental
    D) control

102. Dr. Branch would like to study the relationship between room lighting and college students' test performance. He randomly assigns students to two groups. The first group takes an exam in a dimly lit room and the second group takes the same exam in a regularly lit room. Which is the control group?
    A) the group of students who were randomly assigned to one of the two conditions
    B) the group of students who took the exam in the dimly lit room
    C) the group of students who took the exam in the regularly lit room
    D) There is no control group because this is a naturalistic observation research design.

103. Professor X is studying the effect of exposure to sexual content on sexual thoughts. She assigns students to one of two conditions. In the first condition, participants are exposed to explicit sexual content and then given a word-completion task, which involves filling in the letter missing from each word. Based on the letter added, the word could be of a sexual nature or not. For instance, b_d could be completed as "bed," indicating sexual thought, or as "bad," which has no sexual connotation. In the second condition, participants are not exposed to explicit sexual content but are assigned the same word-completion task. The control group is the group of participants who
    A) were not exposed to explicit sexual content.
    B) were exposed to explicit sexual content.
    C) completed the word as "bad."
    D) completed the word as "bed."

104. The use of _____ effectively equalizes the groups in an experimental design.
    A) a correlation coefficient
    B) random assignment
    C) a control group
    D) the scientific method

105. In a test of the effects of cigarette smoking on physical health and development, groups of monkeys were raised in either a smoke-free or smoke‐infested environment. Monkeys in the smoke-infested environment were assigned to the _____ group.
    A) correlational
    B) survey
    C) control
    D) experimental

106. Random assignment is most likely to be used in _____ research.
    A) survey
    B) case study
    C) correlational
    D) experimental

107. To minimize any differences between participants who are in the control and experimental groups, psychologists make use of
    A) random assignment.
    B) replication.
    C) random sampling.
    D) correlation.

108. A psychologist wants to be sure that her research findings do not result from age or personality differences between participants in the experimental and control groups. She should use
    A) replication.
    B) random assignment.
    C) operational definitions.
    D) the double-blind procedure.

109. To study the effects of noise on worker productivity, researchers have one group of people work in a noisy room and a second group work in a quiet room. To be sure that any differences in the productivity of the two groups actually result from the different noise levels, the researcher should use
    A) the case study.
    B) correlational measurement.
    C) naturalistic observation.
    D) random assignment.

110. Random sampling is to _____ as random assignment is to _____.
    A) correlational studies; case studies
    B) surveys; experiments
    C) replication; correlation
    D) description; prediction

111. In a drug-treatment study, participants given a pill containing no actual drug are receiving a
    A) random sample.
    B) double blind.
    C) replication.
    D) placebo.

112. Research participants and research staff are unaware of which participants received a placebo and which participants received an actual drug. This illustrates
    A) naturalistic observation.
    B) illusory correlation.
    C) a confounding variable.
    D) the double-blind procedure.

113. A group of experimenters want to test the effectiveness of a well-known and expensive brand of pain medication against the effectiveness of a lesser-known and cheaper brand. To prevent any expectations about brand effectiveness from influencing their experimental test, the researchers are likely to make use of
    A) random sampling.
    B) replication.
    C) operational definitions.
    D) the double-blind procedure.

114. The double-blind procedure is most likely to be used in _____ research.
    A) survey
    B) case study
    C) correlational
    D) experimental

115. Abdul has volunteered to participate in an experiment evaluating the effectiveness of aspirin. Neither he nor the experimenters know whether the pills he takes during the experiment contain aspirin or are merely placebos. The investigators are apparently making use of
    A) naturalistic observation.
    B) a confounding variable.
    C) the double-blind procedure.
    D) random sampling.

116. The healing power of positive expectations is best illustrated by
    A) replication.
    B) debriefing.
    C) the placebo effect.
    D) regression toward the mean.

117. In a psychological experiment, researchers are interested in studying the potential effects of the _____ variable.
    A) dependent
    B) confounding
    C) independent
    D) random

118. Dr. Branch would like to study the relationship between room lighting and college students' test performance. He randomly assigns college students to two groups. The first group takes an exam in a dimly lit room and the second group takes the same exam in a regularly lit room. What is the independent variable?
    A) room lighting
    B) exam scores
    C) random assignment
    D) Dr. Branch

119. Dr. Branch would like to study the relationship between room lighting and college students' test performance. He randomly assigns college students to two groups. The first group takes an exam in a dimly lit room and the second group takes the same exam in a regularly lit room. What is the dependent variable?
    A) room lighting
    B) exam scores
    C) random assignment
    D) Dr. Branch

120. Professor X is studying the effect of exposure to sexual content on sexual thoughts. She assigns students to one of two conditions. In the first condition, participants are exposed to explicit sexual content and then given a word-completion task, which involves filling in the letter missing from each word. Based on the letter added, the word could be of a sexual nature or not. For instance, b_d could be completed as "bed," indicating sexual thought, or as "bad," which has no sexual connotation. In the second condition, participants are not exposed to explicit sexual content but are assigned the same word-completion task. What is the independent variable?
    A) sexual thought
    B) the word-completion task
    C) exposure to explicit sexual content
    D) random assignment

121. Psychology research uses the scientific method but also requires creativity on the part of the researcher. Which of the following does NOT explain why creativity is needed?
    A) Researchers design studies.
    B) Researchers randomly assign participants to conditions.
    C) Researchers measure target behaviors.
    D) Researchers interpret results.

122. Distinguishing between an experimental group and a control group is most relevant to specifying the nature of
    A) random sampling.
    B) confounding variables.
    C) a standard deviation.
    D) independent variables.

123. To study some effects of alcohol consumption, Dr. Chu tested the physical coordination skills of 21-year-old men who had just drunk either 4, 2, or 0 ounces of alcohol. In this study, the independent variable consisted of
    A) the age of the research participants.
    B) the physical coordination skills of the research participants.
    C) the amount of alcohol consumed.
    D) the effects of alcohol consumption.

124. Which procedure is most likely to be used to control for possible confounding variables?
    A) debriefing
    B) informed consent
    C) random assignment
    D) standard deviation

125. The dependent variable in an experiment is the factor
    A) that is directly manipulated by the investigator.
    B) that may be influenced by the experimental treatment.
    C) whose effect is being studied.
    D) that causes the behavior being studied.

126. In an experimental study of the extent to which sexual arousal is stimulated by laughter, sexual arousal would be the
    A) control condition.
    B) experimental condition.
    C) independent variable.
    D) dependent variable.

127. Conducting a case study best illustrates
    A) random sampling.
    B) correlational research.
    C) the double-blind procedure.
    D) a descriptive method.

128. Psychology experiments are typically designed to
    A) test principles that help explain behavior.
    B) observe behaviors that are unobservable outside the laboratory.
    C) re-create the naturally occurring conditions that influence people's daily behaviors.
    D) observe a truly random sample of human or animal behavior.

129. Psychologists study animals because
    A) they want to understand how different species think and behave.
    B) animal physiology is often simpler and easier to understand than human physiology.
    C) it is more permissible to conduct certain types of research with animals than with humans.
    D) of all of these reasons.

130. Dr. Branch would like to study the relationship between room lighting and college students' test performance. He randomly assigns college students to two groups. The first group takes an exam in a dimly lit room and the second group takes the same exam in a regularly lit room. To ensure ethical treatment of participants, Dr. Branch will NOT need to
    A) obtain participants' informed consent prior to participation.
    B) keep personal information about participants confidential.
    C) protect his participants from harm and discomfort.
    D) report individual participant results.

131. Evidence indicates that most animal researchers
    A) support government regulations protecting the humane care of animals used in research.
    B) believe the well-being of animals used in research studies should be placed above the well-being of humans.
    C) think animals should be used only in research studies that directly benefit the animals involved in those studies.
    D) insist that animals should be fully debriefed following their use in research studies.

132. The British Psychological Society and the American Psychological Association have issued guidelines for animal research. These guidelines call for
    A) housing social animals with companions.
    B) ensuring the health of research animals.
    C) minimizing the infliction of pain on research animals.
    D) all of these requirements.

133. Psychologists occasionally deceive research participants about the true purpose of an experiment in order to prevent them from
    A) worrying about the potential harm or discomfort they may experience.
    B) realizing that their privacy is being violated.
    C) deciding that they really don't want to take part in the experiment.
    D) trying to confirm the experimenters' predictions.

134. Ethical principles developed by the American Psychological Association and the British Psychological Society urge investigators to
    A) forewarn potential research participants of the exact hypotheses that the research will test.
    B) avoid the use of laboratory experiments when the behaviors of interest can be directly observed in natural settings.
    C) ensure that research participants give informed consent before participating in the research.
    D) avoid the use of monetary incentives in recruiting people to participate in research.

135. The principle of informed consent is most directly relevant to people's right to
    A) choose whether they wish to participate in a research study.
    B) know whether they are assigned to an experimental or control group.
    C) replicate the results of a research study.
    D) be fully debriefed following their participation in research.

136. Debriefing refers to
    A) a technique for assessing the attitudes of those who respond to a survey.
    B) repeating a research study with a different set of participants than those in the original study.
    C) a procedure designed to inhibit the placebo effect.
    D) explaining a research study to participants after the study is completed.

137. The personal values of psychologists are likely to influence their choice of
    A) topics of investigation.
    B) research methods.
    C) explanatory theories.
    D) topics, methods, and theories.

138. An understanding of behavior and mental processes can be misused to manipulate people. That's why some worry about the potential dangers of
    A) confounding variables.
    B) informed consent.
    C) experimental debriefing.
    D) psychology.

139. The percentage of students whose average grades fall into various performance levels could be represented by a
    A) standard deviation.
    B) bar graph.
    C) mode.
    D) correlation.

140. Measures of central tendency are most useful for
    A) determining statistical significance.
    B) summarizing data.
    C) extrapolating from the sample to the population.
    D) enabling measurement of more variable groups.

141. The mode, median, and mean are measures of
    A) central tendency.
    B) variation.
    C) correlation.
    D) statistical significance.

142. The mode of a distribution of scores is the
    A) score exceeded by 50 percent of all the scores.
    B) most frequently occurring score.
    C) arithmetic average of all the scores.
    D) difference between the highest and lowest scores.

143. Six different students spent $10, $13, $2, $12, $13, and $4, respectively, on entertainment. The mode of this group's entertainment expenditures is
    A) $9.
    B) $11.
    C) $12.
    D) $13.

144. The arithmetic average of a distribution of scores is the
    A) mode.
    B) median.
    C) standard deviation.
    D) mean.

145. The most familiar measure of central tendency is the
    A) mode.
    B) mean.
    C) median.
    D) standard deviation.

146. During the past month, Henri and Sylvia each ate 10 candy bars, while Jerry ate 8, Tricia ate 6, and Tahli ate only 1. The mean number of candy bars eaten by these individuals was
    A) 5.
    B) 7.
    C) 8.
    D) 10.

147. In any distribution of scores, an equal number of scores are both greater than and less than
    A) the mode.
    B) the mean.
    C) the median.
    D) any of these measures of central tendency.

148. Mr. and Mrs. Berry have five children ages 2, 3, 7, 9, and 9. The median age of the Berry children is
    A) 6.
    B) 7.
    C) 8.
    D) 9.

149. Seven members of a girls' club reported the following individual earnings from their sale of raffle tickets: $5, $9, $4, $11, $6, $4, and $3. In this distribution of individual earnings, the
    A) median is greater than the mean and greater than the mode.
    B) median is less than the mean and less than the mode.
    C) median is greater than the mean and less than the mode.
    D) median is less than the mean and greater than the mode.

150. Seven members of a debate club reported the following individual earnings from their sale of cakes: $7, $13, $3, $5, $2, $9, and $3. In this distribution of individual earnings, the
    A) mean is greater than the mode and greater than the median.
    B) mean is equal to the mode and less than the median.
    C) mean is greater than the mode and equal to the median.
    D) mean is less than the mode and less than the median.

151. In a distribution of test scores, which measure of central tendency would likely be the most affected by a couple of extremely high scores?
    A) median
    B) mode
    C) standard deviation
    D) mean

152. The mode, median, and mean are most likely to have different values when they
    A) describe a skewed distribution.
    B) are derived from a limited range of scores.
    C) represent the central tendency of a random sample.
    D) represent the central tendency of an entire population.

153. To understand the British newspaper headline “Income for 62% Is Below Average,” a reader needs to appreciate the distinction between the _____ and the mean.
    A) range
    B) standard deviation
    C) mode
    D) median

154. For which of the following distributions of scores would the median most clearly be a more appropriate measure of central tendency than the mean?
    A) 16, 28, 4, 8, 24
    B) 9, 6, 9, 12, 9
    C) 8, 9, 12, 10, 16
    D) 6, 18, 4, 5, 2

155. Variation is to central tendency as range is to
    A) mode.
    B) bar graph.
    C) median.
    D) skewed.

156. Standard deviation is to mean as _____ is to _____.
    A) median; mode
    B) variation; central tendency
    C) bar graph; normal curve
    D) skewed; range

157. Which of the following provides only a rough indication of the degree of variation among a set of scores?
    A) skewed
    B) standard deviation
    C) range
    D) median

158. The range is
    A) the difference between the highest and lowest scores in a distribution.
    B) the most commonly used measure of variation.
    C) the average deviation of scores from the mean.
    D) the most frequently occurring score in a distribution of scores.

159. The intelligence test scores of the five members of the Duluth family are 100, 82, 104, 96, and 118. For this distribution of scores, the range is
    A) 14.
    B) 36.
    C) 48.
    D) 100.

160. Two students in an art class are at least 20 years older than the others. Which measure of variation of class members' ages is most affected by the ages of these two students?
    A) standard deviation
    B) mode
    C) median
    D) range

161. The standard deviation is a measure of
    A) central tendency.
    B) variation.
    C) statistical significance.
    D) skewness.

162. Professor Woo noticed that the distribution of her students' scores on the last biology test had an extremely small standard deviation. This indicates that the
    A) test was given to a very small class of students.
    B) test was a poor measure of the students' knowledge.
    C) students generally performed very well on the test.
    D) students' scores tended to be very similar to one another.

163. To calculate the numerical value of the standard deviation, it would be most reasonable to first compute the value of the
    A) mean.
    B) mode.
    C) range.
    D) median.

164. A normal curve would be LEAST likely to characterize a large random sample of
    A) body weights.
    B) intelligence scores.
    C) family incomes.
    D) professional baseball batting averages.

165. On average, Caryl's school bus arrives on time, although sometimes it is a bit early or late. If the arrival times are distributed on a normal curve, which of the following statistics would enable Caryl to estimate the probability that her bus will arrive within 5 minutes of its scheduled arrival time on any given day?
    A) median
    B) mean
    C) standard deviation
    D) mode

166. Approximately 68 percent of the cases represented by the normal curve fall within _____ standard deviation(s) from the mean.
    A) 1
    B) 2
    C) 3
    D) 34

167. Approximately what percentage of the cases represented by the normal curve fall between –2 and +2 standard deviations from the mean?
    A) 34
    B) 68
    C) 95
    D) 100

168. If IQ scores are normally distributed, having a mean of 100 and a standard deviation of 15, approximately what percentage of people have IQ scores between 85 and 115?
    A) 34
    B) 50
    C) 68
    D) 95

169. If IQ scores are normally distributed, having a mean of 100 and a standard deviation of 15, approximately what percentage of people have IQ scores between 55 and 145?
    A) 34
    B) 68
    C) 95
    D) 100

170. If a set of standardized test scores is normally distributed, having a mean of 75 and a standard deviation of 6, approximately 95 percent of the scores are somewhere between
A) 72 and 78.
B) 75 and 87.
C) 69 and 81.
D) 63 and 87.

171. After his property was vandalized by a small group of teenagers, Mr. Mahmood concluded that most teenagers are irresponsible and delinquent. Mr. Mahmood ought to be reminded that accurate generalizations depend on
A) a realization that random events may not look random.
B) detecting cause-effect relationships.
C) the observation of representative samples.
D) the selection of samples from a skewed population.

172. We can MOST accurately estimate the mean of a population if
A) a sample is large in size and low in variability.
B) a sample is small in size and high in variability.
C) a sample is large in size and high in variability.
D) a sample is small in size and low in variability.

173. The average scores of two samples taken from the same population are most likely to differ if
A) the samples are both small.
B) the standard deviations of the samples are both small.
C) the samples differ from each other in size.
D) the sample means are both similar to the sample medians.

174. Faustin, a member of his school's golf team, has an opportunity to play against a nationally acclaimed professional golfer. How many holes of golf should Faustin choose to play with the professional in order to maximize his own slim chances of winning?
A) 9
B) 18
C) 27
D) 36

175. If half the students at Quincy University have blue eyes, which of the following events is most probable?
    A) In a class consisting of 15 students, 80% or more have blue eyes.
    B) In a class consisting of 30 students, 80% or more have blue eyes.
    C) In a class consisting of 45 students, 80% or more have blue eyes.
    D) All of these answers are equally probable.

176. Statistical significance refers to whether research
    A) variables are causally related.
    B) participants were randomly assigned to particular conditions.
    C) findings are due to chance variations.
    D) results add support to previous findings.

177. A random sample of females was observed to exhibit a lower average level of self-esteem than a random sample of males. To assess the likelihood that this observed difference reflects a real difference in the average self-esteem of the total population of males and females, you should
    A) construct a bar graph.
    B) calculate the correlation.
    C) plot the distribution of self-esteem levels among all males and females.
    D) conduct a test of statistical significance.

178. An observed difference between two sample groups is more likely to be statistically significant if
    A) the observed difference is small.
    B) the sample groups are small.
    C) the standard deviations of the sample groups are small.
    D) both samples are drawn from the same population.

Answer Key

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

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

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

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