Name: _____ Date: _____

- 1. Forming beliefs based on observations about the world is to _____ as forming beliefs based on authority is to _____.
 - A) dogmatism; empiricism
 - B) dogmatism; operationalism
 - C) empiricism; method
 - D) empiricism; dogmatism
- 2. Testing a hypothesis might result in _____ a theory.
 - A) falsifying
 - B) proving
 - C) answering
 - D) observing
- 3. A second-grade teacher seeks help from a school psychologist because a child in the teacher's class in particularly unruly. The school psychologist visits the class one day to observe the child. Knowing that she is being watched, the child decides to be on her best behavior. This scenario BEST illustrates _____ as a reason for why human behavior is difficult to study.
 - A) complexity
 - B) reactivity
 - C) reliability
 - D) variability
- 4. You decide to use a person's eye color as a measure of intelligence. Which statement is true?
 - A) The measure is reliable but lacks validity.
 - B) The measure is valid but lacks reliability.
 - C) The measure is reliable and valid.
 - D) The measure is neither reliable nor valid.
- 5. A reliable measure is one that:
 - A) produces a consistent result if the same thing is measured twice.
 - B) measures what it was intended to measure.
 - C) predicts actual behavior.
 - D) co-varies with the independent variable.
- 6. Which is a good technique to avoid demand characteristics?
 - A) a case method
 - B) naturalistic observation
 - C) an uncontrolled experiment in a laboratory setting
 - D) a take-home survey that includes the participant's personal contact information
- 7. At a particular high school, there is a negative correlation between popularity and academic success. Which statement can be accurately inferred?
 - A) Students who do well in class tend to be popular.
 - B) Having lots of friends results in less time for study and causes students to do worse in school.
 - C) Students who do extremely well academically probably will be viewed as less popular.
 - D) Devoting a great deal of time to study causes students not to seek out personal relationships with others.
- 8. Which statement can NOT be concluded from the systematic observation that children who watch televised aggression act more aggressively?
 - A) There is a possibility that aggressive children choose to watch televised aggression.
 - B) Viewing televised aggression might make children more aggressive.
 - C) A third-variable is definitely causing these results.
 - D) Viewing televised aggression and aggression level are positively correlated.
- 9. Men and women of different age groups who have cancer are randomly assigned to groups differing in the dose of a new cancer-fighting drug in order to examine the effects on the progression of the disease. The dependent variable is:
 - A) disease progression.
 - B) dose.
 - C) age.
 - D) gender.
- 10. Dr. Spelke thinks language is highly involved with spatial ability. She enlists one group of college students to do a verbal task while they navigate around a room, while another group of students does a nonverbal tapping task while also doing the same navigation task. What is the purpose of the tapping group?
 - A) They serve as a control group.
 - B) They are the experimental group.
 - C) They directly test the research hypothesis.
 - D) They serve no purpose and should be taken out of the study.

- 11. In an experimental design, volunteers are placed into the experimental group or the control group based on a flip of a coin. This method illustrates:
 - A) statistical significance.
 - B) random sampling.
 - C) random assignment.
 - D) matched samples.
- 12. Random sampling is most closely associated with:
 - A) internal validity.
 - B) reliability.
 - C) external validity.
 - D) interrater reliability.
- 13. Which statement about ethical research in psychology is true?
 - A) No agency enforces the code of conduct; psychologists operate on the honor system.
 - B) Informed consent should be obtained from research participants or their legal guardians.
 - C) Deception should not be used in psychological research.
 - D) Animal subjects should not be exposed to anesthesia.
- 14. Debriefing means that participants must be told the true purpose and nature of an experiment _____.
 - A) before it begins
 - B) before consent can be given
 - C) after it is over
 - D) when a participant asks for it
- 15. _____ use specific rules and techniques for observation, known as a _____, to observe and understand natural phenomena.
 - A) Dogmatists; measure
 - B) Empiricists; method
 - C) Dogmatists; method
 - D) Humanists; measure
- 16. A scientist theorizes that several billion years ago, a large asteroid collided with the Earth, knocking tons of rock into space and creating the Moon. Which statement constitutes a research hypothesis that follows from this theory?
 - A) The universe was created by a Big Bang.
 - B) It is possible to someday inhabit the Moon.
 - C) Moon rock should be made of the same elements as Earth rock.
 - D) The Moon will itself someday collide with the Earth.
- 17. A psychologist observes that some people exposed to a traumatic childhood experience develop anxiety disorders later in life, while others do not. This illustrates which reason why human behavior is a challenging subject matter for science?
 - A) validity
 - B) variability
 - C) complexity
 - D) reactivity
- 18. An operational definition of a psychological construct that is conceptually unrelated to the construct results in the measure NOT being:
 - A) valid.
 - B) reliable.
 - C) empirical.
 - D) powerful.
- 19. Professor Knice gives his introductory psychology class of 300 students an exam, and everyone earns an A. The exam lacks the _____ to detect which students studied and which did not.
 - A) sample size
 - B) reliability
 - C) power
 - D) significance
- 20. When unobtrusive naturalistic observation is not an option, which is the best technique to avoid demand characteristics?
 - A) Use cover stories to not reveal the true purpose of the study.
 - B) Use the matched-pairs technique to equate demand characteristics.
 - C) Use the case study method to evaluate demand characteristics on a case-by-case basis.
 - D) Use random selection to ensure a representative sample.

- 21. The more time children spend playing video games at home, the lower their grades are at school. This represents a:
 - A) causal relationship.
 - B) negative correlation.
 - C) positive correlation.
 - D) case study.

22. Why can you NOT claim a cause-and-effect relationship with correlational studies?

- A) Correlational studies are not empirical.
- B) Behavior is too complex, variable, and reactive to allow for cause-and-effect determinations.
- C) The correlation between two variables might arise due to the presence of a third variable, causing an effect in both variables of interest.
- D) If two variables are correlated, then by definition one cannot cause the other.
- 23. Bethany thinks her dog is overweight so she switches the dog to a new brand of food for overweight dogs. The switch in dog food is an example of a(n):
 - A) manipulation.
 - B) correlation.
 - C) operational definition.
 - D) matched pairs.
- 24. In order for a study to be a true experiment, you must _____ variable and _____ variable.
 - A) manipulate an independent; measure a dependent
 - B) manipulate a dependent; measure an independent
 - C) randomly sample an independent; randomly assign a dependent
 - D) randomly sample a dependent; randomly assign an independent
- 25. Terrence is studying how music affects attitudes. On a hot June day, he exposes one group of college students to classical music and another group to jazz, while he measures their attitudes toward war. The dependent variable is:
 - A) type of music.
 - B) attitude toward war.
 - C) the students' grade point averages.
 - D) the temperature in the testing room.
- 26. If an experiment has a high degree of _____, a causal relationship can be demonstrated between two variables.
 - A) reliability
 - B) internal validity
 - C) external validity
 - D) correlation coefficient
- 27. A boxer suddenly begins experiencing wild mood swings and bizarre behavior. A neuroscientist determines that the boxer has traumatic brain injury probably caused by numerous concussions. The neuroscientist then studies the brain functioning of the boxer in great detail using fMRI brain-imaging techniques to learn more about concussions. This represents a(n):
 - A) experiment.
 - B) naturalistic observation.
 - C) independent variable.
 - D) case method.
- 28. A college recently banned the use of plastic water bottles on campus in an effort to be more eco-friendly. A psychologist at the college is interested in the attitudes of the students toward this ban. She obtains a list of all of the students who are enrolled at the college. She randomly picks 100 students from this list and administers to these students a survey designed to assess their opinions on the plastic water bottle ban. The psychologist is using which method?
 - A) random sampling
 - B) random assignment
 - C) experiment
 - D) naturalistic observation

- 29. According to the American Psychological Association, which statement about the use of coercion in psychological research is true?
 - A) It can only be used when there is no other way to conduct the research.
 - B) It can be used when the benefits of the study will outweigh the risks to the participants.
 - C) Monetary compensation can be used to persuade a person to participate.
 - D) It is not permissible.

Use the following to answer questions 30-34:

Scenario I

A psychologist was interested in the effects of sleep deprivation on performance on a vigilance task. Forty college students served as participants and were placed in either the sleep-deprivation group or the control group by a coin flip. Both groups spent the night before the study in a sleep laboratory, but only the control group was allowed to sleep. By the next morning, the sleep-deprived group had been awake for the last 24 hours. At this time, both groups were provided a nutritious breakfast and, shortly thereafter, testing began in sound-attenuating cubicles, each equipped with a computer. The vigilance task consisted of monitoring the computer screen. Participants were instructed that red dots represented allied space crafts and green dots represented enemy space crafts. Throughout the 2-hr hour long task, red dots moved across the screen in irregular patterns. Occasionally and unpredictably, a green dot would quickly move across the screen in a haphazard pattern. When a green dot appeared, the task of the participant was to move a stylus over the green dot and press a button, "destroying" the enemy craft.

The results of this fictitious experiment are shown in Figure 2.1.



Figure 2.1.

- 30. (Scenario I) Vigilance was measured as the percentage of "enemy targets" destroyed. As a measure of vigilance, this illustrates:
 - A) an operational definition.
 - B) reliability.
 - C) statistical significance.
 - D) a construct.
- 31. (Scenario I) The independent variable was:
 - A) the length of the vigilance task.
 - B) the instructions given.
 - C) degree of vigilance.
 - D) sleep status.
- 32. (Scenario I) Assuming the differences between groups were statistically significant, before concluding that sleep deprivation impairs vigilance, another dependent variable the researchers probably would want to analyze is:
 - A) the effects of longer or shorter periods of sleep deprivation on vigilance.
 - B) the number of times participants incorrectly destroyed an allied space craft.
 - C) how well the task resembles real-world instances of sustained vigilance.
 - D) the effect of breakfast on performance on the vigilance task.
- 33. (Scenario I) Participants were placed into groups using:
 - A) random sampling.
 - B) random assignment.
 - C) a double-blind technique.
 - D) the matched groups technique.

34. (Scenario I) The purpose of placing participants into one of the two groups by a coin flip was to:

- A) eliminate the demand characteristics operating in the study.
- B) increase the external validity of the study.
- C) help ensure that the two groups were equal on all possible third variables.
- D) minimize experimenter bias.

35. Contrast how a dogmatist and an empiricist might react to the statement that drug addiction is a "disease of the brain."

- 36. A psychologist theorizes that depression is caused by low levels of the neurotransmitter serotonin in the brain. Generate a hypothesis based on this theory.
- 37. Develop an operational definition that could be used to measure the terms happiness and shyness.

- 38. Without both, the results of a psychological study are meaningless. Explain the concepts of validity and reliability.
- 39. Generate your own example of a measure that is (a) reliable but not valid, and (b) neither reliable nor valid.
- 40. What are demand characteristics? Give at least three examples of how to control demand characteristics.
- 41. What is the third-variable problem, and how does it relate to correlational research in psychology? Give examples.
- 42. A true experiment is defined as having certain characteristics. Deconstruct an experiment into its two essential characteristics, and note how each helps to achieve the overall goal of internal validity.
- 43. Self-help guru, Louise Hay, claims that her self-help DVDs can cure cancer. Describe how you would design an experiment to test this claim. To get you started, suppose that the participants in the experiment are individuals recently diagnosed with cancer who have provided informed consent to participate in a study investigating the power of positive thinking. From here, describe how you would use random assignment and manipulation to test Hay's claim. Be sure to identify the independent and dependent variables.
- 44. Generate your own unique example of an experiment. First, generate a hypothesis. Next, state the independent and dependent variables. Also, specify how participants will be assigned to the treatment and control groups.
- 45. Define internal and external validity, and give an example illustrating each.
- 46. Explain the difference between a population and a sample. Then, discuss the relationship between random sampling and generalizing findings from the sample to the population.
- 47. According to Sir Francis Bacon, what two human tendencies interfere with our ability to think critically? Provide examples of each.
- 48. List at least three rules of ethics that psychologists must follow to maintain the safety, well-being, and dignity of their participants.
- 49. Although psychologists and chemists both use the scientific method, discuss three reasons why the subject matter of psychology is much more difficult to study than the subject matter of chemistry.
- 50. Empiricists believe that accurate knowledge about the world requires observation of it.
 - A) True
 - B) False
- 51. Dogmatism is a desired characteristic of science.
 - A) True
 - B) False
- 52. A theory is a testable prediction made by a hypothesis.
 - A) True
 - B) False
- 53. With respect to why people are difficult to study, variability refers to the fact that people behave differently when they are being studied.A) True
 - B) False
- 54. An operational definition is a description of a property in measurable terms.
 - A) True
 - B) False
- 55. Defining and detecting are the two tasks that allow us to measure physical and psychological properties.
 - A) True
 - B) False
- 56. Measuring intelligence in terms of eye color lacks reliability.
 - A) True
 - B) False

- 57. It is possible for a measure to be reliable but not valid.
 - A) True
 - B) False
- 58. A measure is unreliable if it yields different results when it is used to measure different things.
 - A) True
 - B) False
- 59. Validity is the tendency of a measure to produce the same result whenever it is used to measure the same thing.
 - A) True
 - B) False
- 60. Reliability is the tendency of an operational definition and a property to have a clear conceptual relation.
 - A) True
 - B) False
- 61. People are creatures of habit and usually behave the same way regardless of whether or not they are being observed in a psychological study.
 - A) True
 - B) False
- 62. When participants in an experiment behave in a way they think the experimenter wants them to behave, the problem of demand characteristics has developed.
 - A) True
 - B) False
- 63. Naturalistic observation is a method for determining causal relationships between variables.
 - A) True
 - B) False
- 64. Unobtrusive naturalistic observation helps minimize the problem of demand characteristics.
 - A) True
 - B) False
- 65. A researcher's expectations about a study's outcome can influence measurements of that outcome.
 - A) True
 - B) False
- 66. Double-blind observations are a way of controlling for experimenter bias.
 - A) True
 - B) False
- 67. In a double-blind observation, the researcher but not the participant knows the purpose of the study.
 - A) True
 - B) False
- 68. Correlation is a method for determining causal relationships between variables.
 - A) True
 - B) False
- 69. A positive correlation between two variables is stronger than a negative correlation between two variables.
 - A) True
 - B) False
- 70. A negative correlation between two variables means that as the score on one variable decreases, the score on the other variable also will decrease.
 - A) True
 - B) False
- 71. A positive correlation between smoking and mental illness is evidenced by the fact that as smoking in people increases so does the instances of mental illness.
 - A) True
 - B) False

- 72. The observation that the more college students drink alcohol the greater the number of class absences represents a negative correlation.
 - A) True
 - B) False
- 73. Cause and effect can NOT be demonstrated by observing natural correlations.
 - A) True
 - B) False
- 74. When a correlation is observed between two variables, it is possible that one variable is causing the other.
 - A) True
 - B) False
- 75. The third-variable problem means that the possibility of a third, causal variable is always present in correlational measurements.
 - A) True
 - B) False
- 76. To conduct a true experiment, a variable must be manipulated by the experimenter.
 - A) True
 - B) False
- 77. Identifying a group of children who watch violent television and a group of children who do not is an example of manipulating exposure to violent television.
 - A) True
 - B) False
- 78. The variable that is manipulated in an experiment is the independent variable.
 - A) True
 - B) False
- 79. When an independent variable is manipulated, at least two groups are created.
 - A) True
 - B) False
- 80. The dependent variable is manipulated by the experimenter.
 - A) True
 - B) False
- 81. An experimental group should be identical to a control group in every way except one: the manipulation of the independent variable.
 - A) True
 - B) False
- 82. A common strategy in experimentation is to allow participants to choose if they would like to be studied in the experimental group or the control group.
 - A) True
 - B) False
- 83. Self-selection by participants to experimental conditions is an effective way of eliminating the third-variable problem.
 - A) True
 - B) False
- 84. It is common to assign experimental participants to groups by random assignment.
 - A) True
 - B) False
- 85. Random assignment of participants to groups generally is an effective way of eliminating the third-variable problem.
 - A) True
 - B) False
- 86. Third variables are not adequately controlled when random assignment fails to create equivalent groups.
 - A) True
 - B) False

87. Most participants in psychological research are volunteers not selected randomly.

- A) True
- B) False
- 88. When the odds are high that random assignment failed to create equivalent groups, the results are said to be statistically significant.
 - A) True
 - B) False
- 89. An internally valid experiment means that accurate conclusions can be drawn about the causal relationship between an independent variable and a dependent variable.
 - A) True
 - B) False
- 90. In an internally valid experiment, the properties under study necessarily cause one another in the world at large.
 - A) True
 - B) False
- 91. External validity means an experiment defines operational variables in a normal, typical, or realistic way.
 - A) True
 - B) False
- 92. Experimental psychologists seeking to determine cause and effect relations between variables tend to view external validity as more important than internal validity.
 - A) True
 - B) False
- 93. If a study lacks external validity, it necessarily lacks internal validity.
 - A) True
 - B) False
- 94. The case method is a procedure for gathering scientific information by studying a single individual..
 - A) True
 - B) False
- 95. Random assignment to groups is common when using the case method.
 - A) True
 - B) False
- 96. A random sample means that every member of the population has an equal chance of being included for study.
 - A) True
 - B) False
- 97. A random sample means that every participant has an equal chance of being assigned to the treatment group or the control group.
 - A) True
 - B) False
- 98. Most psychological research does not utilize random sampling.
 - A) True
 - B) False
- 99. Psychologists conducting experiments rarely use random assignment.
 - A) True
 - B) False
- 100. The scientific method was first formally described by Francis Bacon.
 - A) True
 - B) False
- 101. Research suggests that most people engage in critical thinking most of the time.
 - A) True
 - B) False

102. People typically search for evidence that confirms their existing beliefs.

- A) True
- B) False
- 103. Critical thinking involves the relentless search for evidence that confirms existing beliefs.
 - A) True
 - B) False

104. Skepticism is an important component of science and critical thinking.

- A) True
- B) False

105. Participants must give their informed consent before participating in psychological research.

- A) True
- B) False

106. Once participants give their informed consent, they are contractually bound to finish their participation; they cannot quit at any time.

- A) True
- B) False

107. Ethical guidelines allow coercion to participate in a psychological study in certain circumstances.

- A) True
- B) False

108. Participants may not be exposed to risk in an experiment, no matter how small.

- A) True
- B) False
- 109. Deception is NOT allowable in psychological research.
 - A) True
 - B) False

110. Research participants should be told the nature and purpose of a study after it is completed.

- A) True
- B) False
- 111. The function of an Institutional Review Board is to help ensure that research is in compliance with legal and ethical guidelines.
 - A) True
 - B) False
- 112. The function of an Institutional Review Board is to help researchers design experiments high in internal and external validity.
 - A) True
 - B) False
- 113. A community member without a college degree could serve on an Institutional Review Board at a college or university.
 - A) True
 - B) False
- 114. Researchers are NOT permitted to serve on institutional review boards.
 - A) True
 - B) False
- 115. Current ethical guidelines prohibit conducting psychological research involving animals.
 - A) True
 - B) False
- 116. Current ethical guidelines prohibit conducting psychological research on animals that involves pain.
 - A) True
 - B) False
- 117. Only a small percentage of psychological research uses animal subjects.
 - A) True
 - B) False

118. Institutional review boards help ensure data are analyzed and disseminated ethically.

- A) True
- B) False
- 119. When it comes to reporting data truthfully, scientists use the honor system.
 - A) True
 - B) False
- 120. Important frauds are more likely to be uncovered than unimportant ones.
 - A) True
 - B) False
- 121. _____ involves making direct observations of the world, whereas ______ involves relying on assumptions and beliefs about the world.
 - A) Methodology; empiricism
 - B) Dogmatism; empiricism
 - C) Empiricism; dogmatism
 - D) Empiricism; methodology

122. The belief that accurate knowledge of the world requires observations of it is called:

- A) empiricism.
- B) methodology.
- C) dogmatism.
- D) pragmatism.
- 123. The belief that one can obtain accurate knowledge about the causes of human behavior by observing people behaving in different situations exemplifies:
 - A) pragmatism.
 - B) dogmatism.
 - C) empiricism.
 - D) parsimony.
- 124. Margot wonders if people behave more aggressively when there is a full moon. To attempt to find out, she categorizes arrest records and emergency room admissions by the cycle of the moon. Margot is taking a(n) _____ approach to the question.
 - A) empirical
 - B) dogmatic
 - C) hypothetical
 - D) deductive

125. Throughout most of human history, people have tended to trust _____ to answer important questions.

- A) logic
- B) science
- C) authority
- D) philosophers
- 126. Holding to Ptolemy's theories that the Earth is the center of the universe despite contradictory observations made by Galileo upon the invention of the telescope illustrates:
 - A) hypothesis testing.
 - B) dogmatism.
 - C) empiricism.
 - D) experimentation.
- 127. _____ is defined as a tentative explanation of a natural phenomenon.
 - A) Theory
 - B) Science
 - C) Hypothesis
 - D) Logic
- 128. Which statement is an attribute of a good theory?
 - A) It can be proven correct.
 - B) It cannot be tested.
 - C) It does not lead to hypotheses.
 - D) It makes falsifiable predictions.

- 129. A testable prediction derived from a theory is termed a(n):
 - A) experiment.
 - B) operational definition.
 - C) hypothesis.
 - D) valid measure.
- 130. Dan believes that happiness has little to do with material possessions. He makes a specific prediction that people who win the lottery will not be any happier than they were before winning. This testable prediction is termed a(n):
 - A) experiment.
 - B) conclusion.
 - C) theory.
 - D) hypothesis.

131. A set of rules and techniques for observation is termed an empirical:

- A) theory.
- B) study.
- C) definition.
- D) method.
- 132. Sue becomes tired when it gets really hot outside and Frank becomes angry. Their different reactions to the heat illustrate the challenge of ______ to the study of human behavior.
 - A) confounds
 - B) variability
 - C) complexity
 - D) reactivity

133. Drugs of abuse activate the reward pathway in the brain. This pathway consists of multiple brain structures, many neurotransmitters, and millions of interconnected neurons. Determining the brain changes that underlie the transition from casual drug use to addiction is a difficult process due to the _____ of the system.

- A) reliability
- B) parsimony
- C) complexity
- D) reactivity

134. According to the textbook, what three things make people especially difficult to study?

- A) shyness, moodiness, and unpredictability
- B) complexity, reactivity, and unpredictability
- C) variability, reactivity, and complexity
- D) reactivity, variability, and stubbornness

135. People are difficult to study because they often behave differently when they know that they are being observed, a phenomenon known as:

- A) unpredictability.
- B) variability.
- C) complexity.
- D) reactivity.
- 136. Cruella would not describe herself as the type of person who cares about animal rights, but she says that she does when filling out a survey for a psychologist. This illustrates that people can be highly _____ when studied.
 - A) dogmatic
 - B) variable
 - C) complex
 - D) reactive

137. An operational definition is:

- A) a description of a property in measurable terms.
- B) the way sciences tend to operate when forming hypotheses.
- C) the consensus scientists reach when defining their terms.
- D) a set of rules and techniques for making observations.
- 138. Describing length as "change in the location of light over time" is an example of a(n):
 - A) measurement device.
 - B) casual observation.
 - C) unit of measurement.
 - D) operational definition.

- 139. Mike wants to know how many licks it takes to get to the center of his all-day sucker. He tells his friends that "one full gyration of the tongue around the outer surface of the lollipop" is what constitutes a "lick." In an informal way, Mike is offering a(n):
 - A) way to use casual observation to answer his question.
 - B) way to eliminate the reactivity sometimes associated with observation.
 - C) operational definition for the property he wants to measure.
 - D) excuse for eating a lot of candy.
- 140. A device that can detect the events to which an operational definition refers is a(n):
 - A) tool.
 - B) gadget.
 - C) demand characteristic.
 - D) instrument.

141. To correctly measure a specific property of an object, the property must be _____ and _____.

- A) defined; detected
- B) identified; researched
- C) real; measurable
- D) visible; specific

142. Mike wants to know how many licks it takes to get to the center of his all-day sucker. He tells his friends that "one full gyration of the tongue around the outer surface of the lollipop" is what constitutes a "lick." Unfortunately, he has not developed a reliable, mechanized way to measure licks. Mike's problem deals with:

- A) definition.
- B) a third variable.
- C) falsifiability.
- D) detection.
- 143. The tendency for an operational definition to be conceptually related to the underlying property under investigation is referred to as:
 - A) reliability.
 - B) validity.
 - C) power.
 - D) measurement.

144. The tendency for a measure to produce the same result whenever it is used to measure the same thing is known as:

- A) consistency.
- B) power.
- C) validity.
- D) reliability.

145. A reliable measure is one that:

- A) tends to produce the same result whenever it is used to measure the same thing.
- B) tends to differentiate between accurate and inaccurate data.
- C) compensates for a weak operational definition of a property under study.
- D) is necessarily an accurate measure of an underlying property.

146. The tendency for a measure to produce different results when the quantity measured changes only slightly is known as:

- A) differentiation.
- B) power.
- C) validity.
- D) reactivity.

147. Ideally, a measurement should have validity, reliability, and _____ in order to be useful to scientists.

- A) definition
- B) accuracy
- C) power
- D) consistency
- 148. A bathroom scale always weighs 150 pounds no matter who steps on it. As a measure of weight, the scale lacks:
 - A) reliability.
 - B) validity.
 - C) consistency.
 - D) parsimony.

- 149. Which measure lacks both reliability and validity?
 - A) scholastic aptitude as measured by the score on an SAT test
 - B) happiness as measured by heart beats per minute
 - C) intelligence as measured in terms of birth order
 - D) class performance as measured by randomly picking a grade out of a hat
- 150. Roger wants to study whether the level of personal income predicts happiness. He operationally defines "income" as "the gross amount of money a person earns in a calendar year." He operationally defines "happiness" as "the ability of that person to stand on one leg for longer than 3 minutes." What is glaringly wrong with Roger's study?
 - A) It lacks validity; "income" can be measured, but "happiness" cannot.
 - B) It lacks reliability; the operational definitions of the properties under study produce inconsistent measurements.
 - C) It lacks validity; the operational definition of "happiness" is unrelated to the underlying property of happiness.
 - D) It lacks reliability; it is difficult to precisely measure both "income" and "happiness."
- 151. Vanessa and Jenny take a reaction-time test. Vanessa's reaction time is 0.23 seconds, and Jenny's reaction time is 0.25 seconds. Suppose that the stopwatch the psychologist used only measured to a tenth of a second. The psychologist concludes that Vanessa and Jenny have equal reaction times of 0.2 seconds. As a measure of reaction time, the stopwatch lacks:
 - A) reliability.
 - B) validity.
 - C) power.
 - D) reactivity.
- 152. When aspects of a setting cause participants to behave the way they think an observer wants them to behave, the problem of _ is present.
 - A) demand characteristics
 - B) complexity
 - C) validity
 - D) variability
- 153. Which statement is an example of a demand characteristic?
 - A) Laura enjoys reading tabloids in her free time.
 - B) Mark acts more polite than normal while on a date.
 - C) Seth buys a certain brand of candy because it appears that there are only a few left.
 - D) Lacey speeds so that she won't be late to her next class.
- 154. Which description is the BEST example of naturalistic observation research methodology?
 - A) a second-grade teacher manipulating reading materials to determine which promotes the greatest literacy
 - B) a psychologist measuring symptoms of depression using a survey
 - C) an inconspicuous economist observing the buying habits of shoppers at a grocery store
 - D) a professor evaluating the degree of student learning through exam performance
- 155. Reggie is curious about how many women versus men shake the handle of the gas pump after they finish fueling their automobiles. Reggie positions himself inside a minimart, where he appears to be a shopper, but all the while he is casually looking out a large window and recording the pump behavior of women and men at the fueling stations. What type of research is Reggie conducting?
 - A) double-blind observation
 - B) naturalistic observation
 - C) an experiment
 - D) case study
- 156. What is one reason why naturalistic observation alone cannot solve the problem of demand characteristics?
 - A) Some things of interest to psychologists do not occur naturally.
 - B) It is impossible not to be detected.
 - C) People become angry if they discover that someone has been watching them.
 - D) Recording devices are too expensive for scientists to purchase.

- 157. What do the following have in common: a microphone concealed in the ceiling of a laboratory, filler items on a psychological survey meant to distract from a study's true purpose, and a misleading explanation told to participants about the purpose of a study?
 - A) They all are forms of experimenter bias.
 - They all are examples of unethical research. B)
 - They all are examples of naturalistic observation. C)
 - D) They all are ways of avoiding demand characteristics.
- 158. Which technique is NOT used to reduce demand characteristics?
 - A) ensure participant anonymity
 - B) study behavior not under voluntary control
 - clearly identify the purpose of the study to participants C)
 - D) observe people without their knowledge

- 159. What is the BEST way to make it less likely that people will be influenced by demand characteristics?
 - A) pay them for their participation
 - B) randomly select them from the population
 - C) require that they sign their name to each survey that they complete
 - D) keep them from knowing the true purpose of the observation
- 160. A clinical psychologist is evaluating a client recovering from a substance abuse disorder to evaluate his likelihood of relapse. Which measure is LEAST susceptible to demand characteristics?
 - A) measuring differences in blood pressure when exposed to drug paraphernalia
 - B) asking the client if he has used alcohol or drugs since their last session
 - C) asking the client to rate the severity of his daily cravings on a 10-point scale
 - D) showing the client pictures of drug paraphernalia and asking him if the pictures are triggering cravings
- 161. In a classic experiment, psychology students were assigned to work either with "bright" rats or with "dull" rats, described as such by the experimenter. After a series of tests, the students' results showed that the "bright" rats had outperformed the "dull" rats. However, in fact, all the rats were of the same strain and breed; there were no preexisting differences between the groups. What caused the difference in their performance?
 - A) By chance, the rats in one group actually were brighter than those in the other group.
 - B) Demand characteristics in the experiment cued the rats about how to perform in the mazes.
 - C) The students' expectations about the rats' performance influenced their observations and behaviors.
 - D) The students looked at average scores rather than at each rat's individual score.
- 162. Which technique helps reduce bias due to prior expectations?
 - A) the case method
 - B) double-blind observation
 - C) use of a correlation coefficient
 - D) random sampling

163. An experiment in which the true purpose is hidden from the researcher as well as from the participant is called a:

- A) blind experiment.
- B) double-blind experiment.
- C) controlled experiment.
- D) correlational study.
- 164. A double-blind study:
 - A) necessarily has sufficient power to detect group differences.
 - B) usually lacks reliability.
 - C) minimizes expectancy effects.
 - D) cannot be used to determine cause and effect.
- 165. Dr. Gomez is investigating a new drug designed to reduce anxiety. Patients with an anxiety disorder are treated with either the drug or a sugar pill (placebo) for some time, and Dr. Gomez records their anxiety levels at weekly appointments. If a double-blind procedure is used:
 - A) only Dr. Gomez will know which patients actually received the drug.
 - B) the patients will know if they are receiving the drug or the placebo.
 - C) Dr. Gomez will not be told the operational definition of anxiety.
 - D) Dr. Gomez will not know which patients actually received the drug.
- 166. A property with a value that can vary or change is called a(n):
 - A) variable.
 - B) modifier.
 - C) adaptation.
 - D) outlier.

167. Correlations detect:

- A) the power of a measure.
- B) patterns of variation in a series of measurements.
- C) patterns of selection in a varied population.
- D) sources of unsystematic error in a data set.
- 168. The pattern of covariation between two variables, each of which has been measured several times, is referred to as:
 - A) variance.
 - B) power deviation.
 - C) a correlation.
 - D) an operational definition.

- 169. The statement "Eating less spinach is associated with a shorter life span" is an example of:
 - A) a correlation.
 - B) a causal relationship.
 - C) variation.
 - D) an estimate.

170. A _____ correlation is associated with a less-is-less relationship.

- A) negative
- B) positive
- C) strong
- D) weak

171. A _____ correlation is associated with a less-is-more relationship.

- A) negative
- B) positive
- C) strong
- D) weak

172. Which statement describes a negative correlation?

- A) Increased time studying is associated with a higher GPA.
- B) Life expectancy increases as body weight decreases.
- C) Body weight tends to increase with increases in height.
- D) People who eat more tend to weigh more.
- 173. Increases in illegal drug use are associated with a higher risk of contracting HIV/AIDS. This is MOST clearly an example of:
 - A) a positive correlation.
 - B) a negative correlation.
 - C) an experiment.
 - D) the double-blind technique.

174. The less children watch violent television programming, the less aggressive children will tend to be. This is an example of:

- A) a positive correlation.
- B) a negative correlation.
- C) cause and effect.
- D) an experiment.

175. People who drink more alcohol tend to have lower personal incomes. This is an example of:

- A) a positive correlation.
- B) a negative correlation.
- C) cause and effect.
- D) an unreliable measure.
- 176. Correlations observed in the world around us are termed:
 - A) natural experiments.
 - B) independent variables.
 - C) case studies.
 - D) natural correlations.
- 177. Which statement regarding variables is true?
 - A) All variables that are correlated are also causally related.
 - B) All variables that are causally related are, by definition, not correlated with one another.
 - C) All variables that are correlated are causally related, but the causes may be unknown to the observer.
 - D) All variables that are causally related are correlated, but not all variables that are correlated are causally related.
- 178. What does the third-variable problem indicate?
 - A) The three variables are all causally related to one another; each is a cause of the others.
 - B) The correlation between any two of the variables must be established before another correlation can be computed.
 - C) Two of the variables are correlated with each other only because each is causally related to a third variable.
 - D) Changes in one variable are producing changes in another variable.
- 179. Research has shown that there is a correlation between the amount of violence a child sees on TV and the aggressiveness of the child's behavior. One explanation of this correlation is that children who watch a great deal of violence on television have a lack of adult supervision. This explanation is an example of what kind of correlation?
 - A) matched sample
 - B) matched pair
 - C) positive
 - D) third-variable

180. What is the third-variable problem in reference to correlational studies?

- A) Third variables act causally on some other variables, but not on all other variables.
- B) Each variable in a correlation exerts a causal influence on the other.
- C) A causal relationship between two variables cannot be inferred from the correlation between two variables.
- D) Correlations can be caused only by another (third) variable.
- 181. What is the biggest limitation in natural correlation research?
 - A) Natural correlations tell us nothing about the relationship between two variables.
 - B) A causal relationship cannot be inferred.
 - C) Natural correlations have no predictive power.
 - D) Most of the time, natural correlations are too complicated to determine.

182. Correlation is to _____ as experimentation is to _____

- A) measurement of variables; manipulation of variables
- B) single variables; multiple variables
- C) manipulation of variables; measurement of variables
- D) unobtrusiveness; correlation

183. What is the main advantage of experimentation over correlation in determining causal relationships?

- A) Experimentation offers the possibility of controlling for all potential third variables at once.
- B) Experimentation involves multiple variables, whereas correlation involves only two variables.
- C) Experimentation systematically controls third variables one at a time, in sequence.
- D) Experimentation uses the matched pairs and matched samples techniques to control for specific third variables.
- 184. What are the two key features to an experiment?
 - A) manipulation and random assignment
 - B) manipulation and correlation
 - C) random assignment and correlation
 - D) manipulation and predictability

185. What is the only way to determine a causal relationship between two variables?

- A) observation
- B) correlation
- C) measurement
- D) experimentation
- 186. If Dr. Smith wants to determine whether drinking alcohol causes feelings of sadness, what research strategy should be used?
 - A) experiment
 - B) natural correlation
 - C) matched-pairs correlation
 - D) case study method
- 187. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the aggressiveness in the children. The fact that the researchers ensured that some children watched violence on television and others did not is an example of:
 - A) matched pairs.
 - B) matched samples.
 - C) correlation.
 - D) manipulation.
- 188. What does the term *manipulation* mean in the context of performing an experiment?
 - A) the ability to design an experiment so that participants react in certain predetermined ways
 - B) the ability to change a variable in order to determine its causal powers
 - C) the ability to hold constant third variables
 - D) the ability to control the responses of research participants
- 189. In the context of an experiment, participants in the experimental group:
 - A) are exposed to a third variable.
 - B) behave as they normally would.
 - C) receive a particular manipulation.
 - D) are not treated differently from any other participants.

- 190. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the level of aggressiveness in the children. What is(are) the independent variable(s)?
 - A) level of aggressiveness at the end of the month
 - B) amount of violence watched on television
 - C) level of aggressiveness at the end of the month and amount of violence watched on television
 - D) the children
- 191. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the level of aggressiveness in the children. What is(are) the dependent variable(s)?
 - A) level of aggressiveness at the end of the month
 - B) amount of violence watched on television
 - C) level of aggressiveness at the end of the month and amount of violence watched on television
 - D) the children
- 192. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the level of aggressiveness in the children. What were the children who were exposed to violent television?
 - A) dependent variable
 - B) independent variable
 - C) control group
 - D) experimental group
- 193. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the level of aggressiveness in the children. What were the children who weren't exposed to any violence on television?
 - A) dependent variable
 - B) independent variable
 - C) control group
 - D) experimental group
- 194. Researchers wanted to see if adults were actually afraid of the dark by exposing them to different levels of light in a room while measuring their heart rates. In this experiment, what are the different levels of light?
 - A) dependent variable
 - B) independent variable
 - C) control group
 - D) experimental group
- 195. Researchers wanted to see if adults were actually afraid of the dark by exposing them to different levels of light in a room while measuring their heart rates. In this experiment, what are the heart rates of the participants?
 - A) dependent variable
 - B) independent variable
 - C) control group
 - D) experimental group
- 196. When one manipulates an independent variable, at least how many groups are created?
 - A) 1
 - B) 2
 - C) 3
 - D) 4
- 197. Researchers wanted to see if listening to calm music would reduce heart rates. Half of the research participants sat quietly and listened to calm music, and the other half sat quietly and listened to no music at all. The group that listened to the music is called the:
 - A) dependent variable.
 - B) independent variable.
 - C) control group.
 - D) experimental group.
- 198. Researchers wanted to see if listening to calm music would reduce heart rates. Half of the research participants sat quietly and listened to calm music, and the other half sat quietly and listened to no music at all. The group that did not listen to the music is called the:
 - A) dependent variable.
 - B) independent variable.
 - C) control group.
 - D) experimental group.

- 199. A researcher wants to assess the effects of varying amounts of alcohol on ratings of perception of friendliness. Three groups of people are given either 1, 2, or 3 beers to drink. Three more groups of people are given either 1, 2, or 3 non-alcoholic beers to drink. Then, all participants are shown a series of pictures of people's faces and are asked to rank the perceived friendliness of each face on a scale from 1 to 10. In this experiment, the independent variable is:
 - A) the number of groups.
 - B) the amount of alcohol consumed.
 - C) the pictures of faces.
 - D) ratings of perceived friendliness.
- 200. A researcher wants to assess the effects of varying amounts of alcohol on ratings of perception of friendliness. Three groups of people are given either 1, 2, or 3 beers to drink. Three more groups of people are given either 1, 2, or 3 non-alcoholic beers to drink. Then, all participants are shown a series of pictures of people's faces and are asked to rank the perceived friendliness of each face on a scale from 1 to 10. Each face was presented for 5 seconds. In this experiment, the dependent variable is:
 - A) the number of groups.
 - B) whether or not the beer had alcohol in it.
 - C) how long each participant was allowed to look at each face.
 - D) ratings of perceived friendliness.
- 201. Wally wants to see if room temperature affects happiness. He invites participants to the laboratory, where half are seated for 20 minutes in a booth held at a constant 68 degrees, and the other half are seated in an identical booth for 20 minutes at a constant 88 degrees. Wally then asks members of each group to rate their level of happiness. What is the dependent variable in this experiment?
 - A) the number of participants
 - B) the elapsed time
 - C) the temperature of the booths
 - D) rating of happiness
- 202. _____ occurs when participants decide if they wish to be studied in the experimental or control group.
 - A) Self-selection
 - B) Random assignment
 - C) Informed consent
 - D) Random sampling
- 203. What is the major problem associated with self-selection as a way to assign participants to the experimental and control groups?
 - A) The treatment necessarily will work in the experimental group because those participants are especially motivated.
 - B) The two groups probably will differ on many variables besides whether or not they received the treatment.
 - C) Self-selection violates the requirement for informed consent.
 - D) Self-selection prevents the manipulation of the independent variable and measurement of the dependent variable.

204. _____ occurs when participants are assigned to the experimental or control group by coin flip.

- A) Self-selection
- B) Random assignment
- C) Double-blind experimentation
- D) Random sampling
- 205. Diana wants to see if heat causes happiness. She asks 100 participants to come to the laboratory, and as they walk in, she asks each person to choose a warm booth or a cool booth. On the basis of their choices, participants spend 20 minutes in one or the other booth before rating their levels of general happiness. What's wrong with Diana's experiment?
 - A) She didn't choose an independent variable.
 - B) She didn't measure a dependent variable.
 - C) She didn't randomly assign participants to the experimental and control groups.
 - D) She didn't expose participants to both the warm and cool booths.

206. Which method does NOT use random assignment to assign participants to groups?

- A) basing group assignment on a coin flip
- B) basing group assignment on a dice roll
- C) basing group assignment on the outcome of a random number generator
- D) basing group assignment based on the order that participants arrive to be studied
- 207. Random assignment to groups helps ensure that:
 - A) demand characteristics in each group are minimized.
 - B) an independent variable is manipulated in each group.
 - C) groups do not differ on variables not of interest.
 - D) a correlation does not exist between the independent and dependent variable.

- 208. When random assignment fails to create equivalent groups, the problem of _____ occurs.
 - A) sampling error
 - B) self-selection
 - C) third variables
 - D) external validity
- 209. When the odds are acceptably low that random assignment hasn't failed in an experiment, the results of the experiment are said to be:
 - A) applicable to the real world.
 - B) certain.
 - C) statistically significant.
 - D) operationally defined.
- 210. A result is said to be statistically significant if the odds that random assignment has failed in an experiment is less than ______ percent.
 - A) 2
 - B) 5
 - C) 10
 - D) 25

211. The characteristic of an experiment that establishes the causal relationship between variables is termed:

- A) power.
- B) reliability.
- C) internal validity.
- D) external validity.

212. All of these are features of an internally valid experiment EXCEPT:

- A) an independent variable is manipulated.
- B) a valid, powerful, reliable measure is used for the dependent variable.
- C) a correlation is observed between the independent and dependent variables.
- D) the experimental and control groups differ on at least one third variable.
- 213. Which event is part of an internally valid experiment?
 - A) An independent variable has been effectively manipulated.
 - B) Participants have been self-selected to the control and experimental groups.
 - C) The experiment resembles the real world as closely as possible.
 - D) A dependent variable has been effectively manipulated.

214. Dr. X did a study showing that violent video games increased aggression, while Dr. Y did a study showing that violent video games did not increase aggression. The most likely explanation is that:

- A) the experiment of one or both researchers was invalid.
- B) one or both researchers lied about their results.
- C) random assignment to groups failed in both experiments.
- D) the researchers had different operational definitions of aggression.
- 215. External validity means that:
 - A) an experiment used reliable measures of the independent variable.
 - B) a correlation was established between an independent and a dependent variable.
 - C) an experiment has been verified by a group of scientists not associated with the study.
 - D) the variables in an experiment have been defined in a normal, typical, or realistic way.
- 216. The closer an experiment is to the real world, the more psychologists can claim it has:
 - A) internal validity.
 - B) external validity.
 - C) reliability.
 - D) statistical significance.
- 217. Most experiments in psychology lack:
 - A) external validity.
 - B) internal validity.
 - C) randomization.
 - D) manipulation.
- 218. Externally invalid experiments:
 - A) typically use self-selection to groups.
 - B) do not control for the third variable problem.
 - C) cannot determine cause and effect between two variables.
 - D) test hypotheses derived from theories.

- 219. The chair of the psychology department wants to determine the average GPA of all psychology majors at the college. She compiles a list of the GPAs of all the psychology majors and calculates the average. The chairperson is working with data from a(n):
 - A) invalid source.
 - B) population.
 - C) sample.
 - D) case study.
- 220. The chair of the psychology department wants to determine the average GPA of all the psychology majors in the United States. She randomly selects 50 colleges and universities and compiles a list of the GPAs of all the psychology majors at those institutions. This list represents a(n):
 - A) experimental group.
 - B) population.
 - C) sample.
 - D) case study.
- 221. Dr. Sardonicus learned of a woman whose tongue turned a bright shade of green whenever she felt stressed. Although this is a rare event in the general population, Dr. Sardonicus nonetheless interviewed the woman at great length and made detailed observations about her behavior. Dr. Sardonicus used ______ to gather data.
 - A) averaging
 - B) the case method
 - C) random sampling
 - D) the law of large numbers
- 222. A psychologist who studies memory processes by investigating the remarkable ability of Akira Haraguchi to accurately recite pi to 100,000 digits is using:
 - A) experimentation.
 - B) the case method.
 - C) self-selection.
 - D) the double-blind technique.
- 223. When every member of a population has an equal chance of being included in a sample, what sampling process is being used?
 - A) reliability sampling
 - B) random assignment
 - C) random sampling
 - D) convenience sampling
- 224. Which statement accurately summarizes the way psychologists gather research participants?
 - A) Psychologists usually use random samples of the population.
 - B) Psychologists typically use volunteers, often drawn from a college population.
 - C) Psychologists typically select participants at random from the phone book.
 - D) Psychologists only select participants who outwardly appear to be of average intelligence.
- 225. If researchers are interested in whether or not it is possible for a person to have a reaction time less than 0.05 seconds, and they simply measure the reaction times of volunteers who sign up for the study, what rationale would the researchers give for not using random sampling?
 - A) Sometimes generality does not matter.
 - B) Sometimes generality cannot be determined.
 - C) Sometimes generality can be determined.
 - D) Sometimes generality is best determined by non-random sampling.
- 226. If researchers measure how some American children behave after playing *Blood Sport* for 2 hours, then replicate the experiment with Asian, European, and African children and then with teenagers, the researchers would be using which justification of nonrandom sampling?

 - A) Sometimes generality does not matter.
 - B) Sometimes generality is the cause of the effect.
 - C) Sometimes generality can be determined.
 - D) Sometimes generality can be assumed.
- 227. If researchers are interested in the average time it takes to press a button when a green light flashes on a screen, and they simply measure the reaction times of volunteers who sign up for the study, what rationale would the researchers give for not using random sampling?
 - A) Sometimes generality does not matter.
 - B) Sometimes generality cannot be determined.
 - C) Sometimes generality can be determined.
 - D) Sometimes generality can be assumed.

- 228. The scientific method was first formalized by:
 - A) Newton.
 - B) Galileo.
 - C) Bacon.
 - D) Descartes.
- 229. Which statement about critical thinking is true?
 - A) Humans have a natural tendency to evaluate evidence critically.
 - B) Courses designed to increase critical thinking usually are effective.
 - C) Decisions based on empirical data necessarily involve critical thinking.
 - D) Thought patterns that have been evolutionary adaptive often interfere with the ability to critically evaluate evidence.
- 230. Humans have a natural tendency to:
 - A) notice evidence that is inconsistent with their beliefs.
 - B) see what they expect or wish to see.
 - C) engage in critical thinking as a default cognitive strategy.
 - D) give undue importance to events that are contrary to their wishes or desires.
- 231. Darley and Gross (1983) showed participants a video of a girl taking a reading test. They then asked participants to rate the girl's academic ability. These researchers found that participants rated her academic ability higher if they thought that she:
 - A) was from an affluent family.
 - B) was from an extremely religious family.
 - C) had struggled to overcome her family's poverty.
 - D) was 10 years of age instead of 12 years of age.
- 232. Darley and Gross (1983) showed participants a video of a girl taking a reading test. Some participants were told that the girl was from an affluent family and others were told that she was from a poor family. Then, participants were asked to rank the girl's academic abilities. Which statement regarding the findings of this experiment is true?
 - A) Ratings were unaffected by knowledge of the girl's socioeconomic status as long as she was dressed similarly in both videos.
 - B) Ratings were unaffected by knowledge of the girl's socioeconomic status as long as the girl performed equally well on the reading test in both videos.
 - C) Ratings were higher if they thought the girl was affluent relative to poor, but participants could not justify these ratings with evidence from the video.
 - Ratings were higher if they thought the girl was affluent relative to poor, and participants could justify these ratings with D) evidence from the video.
- 233. Suppose that a local government is considering a construction project that will cost tax payers a large amount of money. Residents have strong views on both sides of the debate. In an attempt to educate the public, the city arranges several informational sessions in which the pros and cons of the project are discussed. Which result is consistent with the psychological literature?
 - A) Residents' original attitudes toward the project would be strengthened by attending the informational sessions.
 - B) Residents' original attitudes toward the project would be weakened slightly by attending the informational sessions.
 - C) The majority of the residents would change their minds after hearing evidence on both sides of the debate.
 - D) The informational sessions would have no effect whatsoever on residents' attitudes toward the project.
- 234. People are more critical of new evidence that is:
 - A) consistent with common sense.
 - B) consistent with their attitudes or beliefs.
 - C) inconsistent with their attitudes or beliefs.
 - D) presented using emotionally charged language.
- 235. Consistent with psychological research, politicians tend to surround themselves with advisors who:
 - A) like to play devil's advocate and challenge the politicians' beliefs on policy issues.
 - B) validate the politicians' beliefs on most policy issues.

 - C) present both sides of a policy issue in a fair and balanced way.
 - D) spend more time objectively considering evidence that opposes the politicians' beliefs.
- 236. Jeff must find four sources for a term paper he is writing on corporal punishment (i.e., spanking). Jeff's family spanked him when he misbehaved as a child, and Jeff believes that it is a useful behavioral modification technique. If Jeff is like most people, he probably will:
 - A) find four studies suggesting that corporal punishment is effective and relatively harmless.
 - B) find four studies suggesting that corporal punishment is dangerous, but then attempt to discredit this research.
 - C) review two studies on each side of the debate in a fair and balanced way.
 - change his mind once reviewing the evidence on both sides of the debate. D)

- 237. Which statement about the role of missing evidence in decision making is true?
 - A) People have a natural tendency to seek out informational gaps in order to arrive at the best possible decision.
 - B) People usually overvalue the importance of missing evidence.
 - C) People usually ignore missing evidence.
 - D) People have a strong tendency to actively seek missing information if what is missing would challenge their existing beliefs.
- 238. In order to develop your critical thinking skills, you should:
 - A) try to avoid being skeptical of new evidence.
 - B) surround yourself with people who do not share your views.
 - C) believe everything published in quality scientific journals.
 - D) not base decisions on missing evidence.
- 239. Which statement is NOT one of the three features of ethical scientific research as described by the Belmont Report?
 - A) The research has practical value.
 - B) The research respects people.
 - C) The research is beneficent.
 - D) The research is just.
- 240. The term *beneficient* means that:
 - A) risks and benefits should be distributed fairly to participants.
 - B) participants should not be exposed to risk.
 - C) researchers should attempt to maximize the benefits and minimize the risks of their research.
 - D) researchers obtain an informed consent from participants.
- 241. As a feature of ethical research, the term *just* refers to which statement?
 - A) Risks and benefits should be distributed fairly to participants.
 - B) Deception should not be used.
 - C) Researchers should attempt to maximize the benefits and minimize the risks to participants.
 - D) Researchers should obtain an informed consent from participants.
- 242. Informed consent:
 - A) must be obtained before individuals participate in an experiment.
 - B) is strongly recommended but not mandatory for individuals participating in an experiment.
 - C) is not necessary unless painful stimuli are involved.
 - D) is mandatory only for participants over 18 years of age.
- 243. The ethical principle of _____ means that research participants are given enough information about a study to make a reasonable decision about whether or not to participate.
 - A) freedom from coercion
 - B) informed consent
 - C) debriefing
 - D) protection from harm
- 244. Jill decides to participate in research studies conducted by professors in the psychology department. Before a study begins, she is given what looks like a contract that describes the study, as well as the risks and benefits of participating. This describes:
 - A) debriefing.
 - B) informed consent.
 - C) demand characteristics.
 - D) research instructions.
- 245. An instructor makes it clear to his psychology students that if they do not participate in his research, they will receive a failing grade. What ethical principle has the instructor violated?
 - A) freedom from coercion
 - B) informed consent
 - C) debriefing
 - D) protection from harm
- 246. According to the American Psychological Association (APA) code of ethics, which statement about risk-benefit analysis is true?
 - A) Participants may not be asked to take small risks.
 - B) Participants may be asked to accept large risks.
 - C) Participants may not be asked to accept large risks.
 - D) Participants may not be asked to take any risks.

- 247. Which statement regarding deception in psychological research is true?
 - A) Deception cannot be used.
 - B) Deception is a standard practice to minimize demand characteristics and does not need to be justified.
 - C) Deception cannot be used if it puts participants at risk of harm or pain.
 - D) Deception involving exposure to harm or pain is only justified if debriefing is provided.
- 248. Which statement regarding deception in psychological research is true?
 - A) Deception cannot be used.
 - B) Deception is a standard practice to minimize demand characteristics and does not need to be justified.
 - C) Deception can be used only when alternative procedures are not available and the study has applied or scientific value.
 - D) Deception can be used anytime it answers an important scientific question.
- 249. As part of her course requirements, Jill participates in research studies conducted by professors. After she participates, she is fully informed about the nature of the study. This describes:
 - A) debriefing.
 - B) informed consent.
 - C) demand characteristics.
 - D) risk-benefit analysis.
- 250. The ethical principle of _____ means that participants must be told the true purpose and nature of an experiment after it is over.
 - A) informed consent
 - B) debriefing
 - C) protection from harm
 - D) freedom from coercion

251. Which statement about divulging the true purpose of an experiment is true?

- A) The psychologist need not divulge the true purpose of an experiment.
- B) The psychologist must divulge the true purpose of the experiment before the subject participates.
- C) The psychologist must divulge the true purpose of the experiment only after it has been published.
- D) The psychologist must divulge the true purpose of the experiment after the person participates.
- 252. How is the psychological code of ethics as it pertains to respecting people enforced?
 - A) by the honor system (self-regulation)
 - B) by institutional review boards
 - C) by international inspectors from the United Nations task force on human rights.
 - D) through the tenure and promotion system at colleges and universities.

253. Which statement about the use of animals in psychological research is FALSE?

- A) Psychologists must make reasonable efforts to minimize distress to animals.
- B) Psychologists must not expose animals to painful stimuli.
- C) Surgical procedures should be conducted by qualified personnel, and animals must be under appropriate anesthesia.
- D) People for the Ethical Treatment of Animals is against all use of animals in scientific research.
- 254. Which statement about the use of animals in psychological research is true?
 - A) People for the Ethical Treatment of Animals approves of the use of animals in psychological research.
 - B) Most research in psychology involves the use of animals.
 - C) Animals in psychological research may be exposed to painful stimuli if there is no other way to conduct the research and there is a strong justification for the research.
 - D) The American Psychological Association is against the use of animals in psychological research.
- 255. The ethical analysis and reporting of scientific results is regulated by:
 - A) federal grant agency systems.
 - B) national review boards (NRBs).
 - C) institutional review boards (IRBs).
 - D) the honor system.

Answer Key

- 1. D
- 2. A
- 3. B 4. A
- 5. A
- 6. B
- 7. C
- 8. C
- 9. A
- 10. A
- 11. C
- 12. C 13. B
- 13. D 14. C
- 15. B
- 16. C
- 17. B
- 18. A
- 19. C 20. A
- 20. A
- 22. C
- 23. A
- 24. A
- 25. B
- 26. B
- 27. D
- 28. A
- 29. D
- 30. A 31. D
- 31. D 32. B
- 33. B
- 55. D
- 34. C
- 35. The answer should indicate that dogmatists often acquire knowledge from authority and then are reluctant to change their beliefs even if the evidence does not support these beliefs. Dogmatists who believe that drug addiction is caused by a person's free will might consider addicts morally weak and not be swayed by data suggesting genetic predispositions, brain changes associated with drug use, etc. Empiricists who believe that drug addicts are morally weak, however, might change their opinion on the issue when confronted with these data. Empiricists base their knowledge on observations of the world, and may change their opinions when confronted with new data.
- 36. The answer should indicate that one hypothesis is that drugs that increase serotonin in the brain should alleviate symptoms of depression. Another hypothesis is that drugs that deplete serotonin levels should exacerbate symptoms of depression.
- 37. The answer should provide a definition of the construct in terms of its measure. For example, happiness can be defined in terms of the frequency of smiling. Shyness can be defined in terms of frequency and duration of eye contact when conversing with a new person.
- 38. The answer should provide the following information: (1) Validity refers to the extent to which a measurement and a property are conceptually related. A valid measure is one that measures what it claims to measure; in other words, the operational definition of a property must overlap with the conceptual definition of that property. A researcher using invalid measures is claiming to measure one thing, but is instead measuring something else; (2) Reliability refers to the consistency of a measurement. A reliable measure gives the same kind of results each time it is used. So, for example, a reliable measure of intelligence would yield the same kinds of test results each time it is administered, just as a reliable 12-inch ruler would measure 12 inches no matter who was holding it. A researcher using unreliable measures has no basis for knowing that the measurements taken reflect aspects of the property to be measured.
- 39. The answer should provide the following information: (1) For example, defining intelligence in terms of how long someone can hold his or her hand in a bucket of ice, measured precisely with a stopwatch. The key is that the measure might produce similar results each time, but it does not conceptually relate to the construct; (2) For example, defining intelligence in terms of the combined score obtained from rolling 20 dice. Not only is the measure not conceptually related to the construct of intelligence (no validity), the results will change considerably each time the measurement is taken, thus demonstrating a lack of reliability. 40. The answer should indicate that demand characteristics are aspects of an observational setting that cause people to behave as they think an observer wants or expects them to behave. Examples of how to control demand characteristics: (1) Observe participants in natural environment unobtrusively. If people do not know that they are being observed, they will behave normally; (2) Ensure participant anonymity; (3) Do not reveal the true purpose of the study until after the study has been completed; (4) Measure behavior that is not susceptible to demand characteristics, such as reflexes; (5) Use a double-blind observation or measurement to eliminate the effects of researchers' expectations. 41. The answer should indicate that the third-variable problem is the fact that two variables may be correlated only because they are both caused by a third variable. The third-variable problem is encountered often in observations of natural correlations. Because of the third-variable problem, just because two variables are correlated does not necessarily mean that one is causing the other to occur. The third-variable problem always exists in correlation studies; no matter how much we control for relevant third variables, another always exists. An example of the third variable problem involves the correlation between watching violent television programming and childhood aggression. From this correlation alone, we cannot say that watching violent television programming causes aggression. It may be that a third variable—lack of parental supervision—causes both television viewing and aggression.

- 42. The answer should provide the following information: (1) An experiment must include manipulation and random assignment; (2) Manipulation, controlled by the experimenter, means changing the pattern of variation to which the participants are exposed. Rather than observing natural correlations, the experimenter makes systematic changes in the levels of a property. The property thus manipulated is called an independent variable. For example, an experimenter might expose members of one group (the experimental group) to an aversive noise as they try to complete anagrams and members of the other group (the control group) to silence while they complete the same task. The variation—silence-to-noise—was controlled, produced, and manipulated by the experimenter; (3) Random assignment means that participants are assigned to either the experimental or control group by chance. This has the effect of reducing the possibility that any third variables "lump up" in either group and thereby offer a compelling alternative explanation for the findings. By making sure, through random assignment, that both groups have roughly the same amount of smart, motivated, dumb, attention-paying, tall, hefty, short, myopic, claustrophobic, sensation-seeking, aggressive, retiring, bald, female, male,. . . participants, there's less chance that any of those unwanted attributes can act as a third variable; (4) Both manipulation and random assignment contribute to internal validity. By manipulating the independent variable, the researcher knows that it is the only thing that systematically differs between the groups. By randomly assigning participants to conditions, no other preexisting differences should be able to cause differences in the dependent variable.
- 43. The answer should indicate that the cancer participants are randomly assigned to one of two groups. Participants in one group watch the self-help DVDs every day. Participants in the other group watch a DVD of similar duration but without Hay's message (placebo). The independent variable is the type of DVD watched (self-help or placebo). The experiment might last 6 months, and the dependent variable is the number of cases in which the cancer goes into remission. If Hay's claims are correct, participants who receive the self-help DVDs should show a higher rate of remission.
- 44. The answer should provide the following information: Example: To find out if the drug Trimjeans really facilitated weight loss, researchers, in a double-blind experiment, gave a placebo to half the randomly selected participants and the drug Trimjeans to the other half of the participants. After a trial period of taking one pill per day for 3 months, the weights of the participants were studied. Participants were weighed every day. The independent variable was the drug Trimjeans because it was the variable being manipulated. The dependent variable was the participants' weights because it was what was being measured. The experimental group was the half that received the drug, and the control group was the placebo group.
- 45. The answer should provide the following information: (1) Internal validity: characteristic of an experiment that allows us to draw accurate inferences about the causal relationship between an independent and dependent variable. Rules of validity for an internally valid experiment: An independent variable has been effectively manipulated. Participants have been randomly assigned to the control and experimental groups. A dependent variable has been measured in an unbiased way, with a valid and reliable measure. A correlation has been observed between the pattern of variation created in the independent variable and the pattern of variation measured in the dependent variable; (2) If an experiment has been conducted properly (as described above) then we can be confident that the observed changes in the dependent variable were caused by our manipulating of the independent variable; (3) External validity: characteristic of an experiment in which the independent variables are operationally defined in a normal, typical, or realistic way. For example, if we operationally define violent television programming and childhood aggression in realistic ways, then we can feel somewhat confident in generalizing the results of our study to similar children watching similar television shows.
- 46. The answer should provide the following information: (1) A population refers to all members of a group who potentially could be measured. All students currently enrolled at your school would be a population. All residents of your city in 1900 would also be a population. All girls who in January 2008 are between the ages of 13 and 17 who have blonde hair and who are taller than 5'0" would also be a population; (2) A sample is a smaller group drawn from a larger population. If the sample is randomly drawn from the population, and large enough, it will resemble the population on all variables. Therefore, psychologists can generalize their results to the population when they study a random sample.
- 47. The answer should indicate that according to Bacon, humans have the tendency to see what they expect or want to see and usually fail to consider what they cannot see: (1) Expectancies can alter our perceptions. Consider an example where participants watch a video of a young girl reading aloud. If the participant were first told that the girl came from an affluent family, they rated her reading ability higher than if told she came from a family of lower socioeconomic status; (2) Biases can alter our perceptions: For example, when you watch a presidential debate, you rarely note the flubs of your favorite candidate, but are quick to point out those of the other candidate; (3) Our beliefs and expectations also affect the sources of information at our disposal. We tend to expose ourselves only to information that is already consistent with our beliefs. For example, conservatives watch conservative cable news networks and liberals expose themselves to more liberal media; (4) In making decisions, people often fail to consider that the most important piece of information might be the one that is absent. For example, suppose a burglary has been committed. Amateur detectives might focus all of their attention on scouring the crime scene, gathering physical evidence. A trained detective would also consider that which is missing, such as "Why are there no signs of forced entry?" and "Why didn't the dog bark?"
- 48. The answer should list three of the following rules: informed consent, freedom from coercion, protection from harm, riskbenefit analysis, deception, debriefing, and confidentiality. (1) Informed consent: a written agreement to participate in a study made by a person who has been informed of all the risks of participation; (2) Freedom from coercion: Researchers cannot force people to participate unwillingly in an experiment; (3) Protection from harm: Psychologists will use the safest method possible; (4) Risk-benefit analysis: Participants may not be asked to accept large risks; (5) Deception can be used only if adequately justified, no alternative is available, and the act of deception will not increase risk to participants; (6) Debriefing: a verbal description of the true nature and purpose of a study that psychologists provide to people after they have participated in the study; (7) Confidentiality: Private and personal data obtained during a study should be kept confidential.
 49. The answer should provide the following information: (1) Complexity: The human brain may be the most complex system in the universe. When two chemicals react, we have precise equations that will accurately predict the outcome. Judging from the proliferation of online dating sites, we aren't that good at predicting what will happen when two people meet.(2) Variability: No two people are the same. Just because a psychologist learns something about Person A does not necessarily mean that it will be applicable to Person B. By comparison, all the atoms of gold on the planet are identical; (3) Reactivity: People behave differently when they know that they are being observed: A chemical reaction will proceed in the same way regardless of who is watching the change.

50. A

51. B

52. B

- 53. B
- 54. A

55. A

- 50.11
- 56. A
- 57. A

58. B 59. B 60. B 61. B 62. A 63. B 64. A 65. A 66. A 67. B 68. B 69. B 70. B 71. A 72. B 73. A 74. A 75. A 76. A 77. B 78. A 79. A 80. B 81. A 82. B 83. B 84. A 85. A 86. A 87. A 88. B 89. A 90. B 91. A 92. B 93. B 94. A 95. B 96. A 97. B 98. A 99. B 100. A 101. B 102. A 103. B 104. A 105. A 106. B 107. B 108. B 109. B 110. A 111. A 112. B 113. A 114. B 115. B 116. B 117. A 118. B 119. A 120. A 121. C 122. A 123. C 124. A 125. C 126. B 127. A 128. D 129. C 130. D 131. D 132. B 133. C 134. C 135. D

136. D 137. A 138. D 139. C 140. D 141. A 142. D 143. B 144. D 145. A 146. B 147. C 148. B 149. D 150. C 151. C 152. A 153. B 154. C 155. B 156. A 157. D 158. C 159. D 160. A 161. C 162. B 163. B 164. C 165. D 166. A 167. B 168. C 169. A 170. B 171. A 172. B 173. A 174. A 175. B 176. D 177. D 178. C 179. D 180. C 181. B 182. A 183. A 184. A 185. D 186. A 187. D 188. B 189. C 190. B 191. A 192. D 193. C 194. B 195. A

196.	В
197.	D
198.	С
199.	В
200.	D
201.	D
202.	А
203.	В
204.	В
205.	С
206.	D
207.	С
208.	С
209.	С
210.	В
211.	С
212.	D
213.	А

214.	D
215.	D
216.	В
217.	А
218.	D
219.	В
220.	С
221.	В
222.	В
223.	С
224.	В
225.	А
226.	С
227.	D
228.	С
229.	D
230.	В
231.	А
232.	D
233.	А
234.	С
235.	В
236.	А
237.	С
238.	В
239.	А
240.	С
241.	А
242.	А
243.	В
244.	В
245.	А
246.	С
247.	С
248.	С
249.	А
250.	В
251.	D
252.	В
253.	В
254.	С
255.	D