113 The hindsight bias refers to people's tendency to

- dismiss the value of replication. Incorrect
- reject any ideas that cannot be scientifically tested. Incorrect
- exaggerate their ability to have foreseen the outcome of past events. (*True Answer*)Correct
- assume that correlation proves causation. Incorrect
- overestimate the extent to which others share their
- opinions. Incorrect
- Giving half the members of a group some purported
 psychological finding and the other half an opposite result is an easy way to demonstrate the impact of
 - overconfidence. Incorrect
 - illusory correlation. Incorrect
 - the hindsight bias. (True Answer)Correct
 - random sampling. Incorrect
 - the double-blind procedure. Incorrect
- 115 Professor Smith told one class that alcohol consumption has been found to increase sexual desire. He informed another class that alcohol consumption has been found to reduce sexual appetite. The fact that neither class was surprised by the information they received best illustrates the power of
 - overconfidence. Incorrect
 - replication. Incorrect
 - the hindsight bias. (True Answer)Correct
 - the double-blind procedure. Incorrect
 - the placebo effect. Incorrect
- 116 The hindsight bias leads people to perceive research findings as
 - invalid. Incorrect
 - unpredictable. Incorrect
 - inexplicable. *Incorrect*
 - unreplicable. Incorrect
 - unsurprising. (True Answer)Correct
- 117 Alexandra is told that research supports the value of cosmetic surgery for boosting self-esteem. Belinda is told that the esteemenhancing value of cosmetic surgery has been refuted by

research. Both women would consider the findings to be common sense. This best illustrates the power of

- random sampling. Incorrect
- overconfidence. Incorrect
- the hindsight bias. (True Answer)Correct
- illusory correlation. Incorrect
- the double-blind procedure. Incorrect
- 118 According to Emily's grandfather, Adolf Hitler's obvious emotional instability made it clear from the beginning days of his international conflicts that Germany would inevitably lose World War II. The grandfather's claim best illustrates
 - the hindsight bias. (True Answer)Correct
 - illusory correlation. Incorrect
 - overconfidence. Incorrect
 - an illusion of control. Incorrect
 - random sampling. Incorrect

119 **Formulating testable hypotheses before conducting research is** most directly useful for restraining a thinking error known as

- random sampling. Incorrect
- the hindsight bias. (True Answer)Correct
- overconfidence. Incorrect
- illusory correlation. Incorrect
- random assignment. Incorrect
- 120 The scientific attitude of humility is most likely to be undermined by
 - the hindsight bias. (True Answer)Correct
 - correlational evidence. Incorrect
 - random assignment. Incorrect
 - operational definitions. *Incorrect*
 - naturalistic observation. *Incorrect*
- 121 When we see certain outcomes as obvious based on what has occurred, we may be experiencing
 - empiricism. Incorrect
 - critical thinking. Incorrect
 - hindsight bias. (True Answer)Correct
 - overconfidence. Incorrect

- humility. Incorrect
- 122 **Our tendency to believe we know more than we do illustrates**
 - naturalistic observation. Incorrect
 - illusory correlation. Incorrect
 - overconfidence. (True Answer)Correct
 - the standard deviation. Incorrect
 - placebo. Incorrect
- 123 When provided with the unscrambled solution to anagrams, people underestimate the difficulty of solving the anagrams by themselves. This best illustrates
 - illusory correlation. Incorrect
 - hindsight bias. Incorrect
 - the placebo effect. Incorrect
 - wording effects. Incorrect
 - overconfidence. (*True Answer*)Correct
- 124 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
 - overconfidence. (True Answer)Correct
 - the hindsight bias. Incorrect
 - the placebo effect. Incorrect
 - negative correlation. Incorrect
 - illusory correlation. *Incorrect*
- 125 The second s
 - operational definitions Incorrect
 - overconfidence (True Answer)Correct
 - random assignment Incorrect
 - naturalistic observation Incorrect
 - the double-blind procedure Incorrect
- 126 Megan was certain that she would never live far away from her family. However, in order to further her career, she decided to
 - move. Megan's experience best illustrates
 - the hindsight bias. Incorrect
 - illusory correlation. Incorrect

- random assignment. Incorrect
- the empirical approach. Incorrect
- overconfidence. (True Answer)Correct
- 127 Political officials who have no doubt that their own economic and military predictions will come true most clearly
 - and military predictions will come true most clearly demonstrate
 - illusory correlation. Incorrect
 - random sampling. Incorrect
 - overconfidence. (True Answer)Correct
 - the placebo effect. Incorrect
 - operational definition. Incorrect
- 128 Sasha believes that she is a very good driver. Her belief leads her to take unnecessary risks, such as driving too fast and
 - her to take unnecessary risks, such as driving too fast and cutting in front of other drivers. Sasha's driving appears to be affected by
 - hindsight bias. Incorrect
 - overconfidence. (True Answer)Correct
 - intuition. Incorrect
 - illusory correlations. Incorrect
 - empiricism. Incorrect
- 129 **Basing decisions or conclusions on observable evidence** describes which of the following?
 - hindsight bias Incorrect
 - confirmation bias Incorrect
 - empirical approach (True Answer)Correct
 - overconfidence Incorrect
 - operational definition *Incorrect*
- 130 **Which of the following questions most likely could be answered** using an empirical approach?
 - Is human nature basically good or evil? Incorrect
 - What causes aggression? (True Answer)Correct
 - What happens after we die? Incorrect
 - How will style choices change in the future? Incorrect
 - What is the basis of faith? *Incorrect*

131 **What is the advantage of researchers using an empirical** approach in evaluating the accuracy of eyewitness testimony? • Researchers would experience greater overconfidence in their findings. *Incorrect*

- Such an approach allows researchers to set aside their critical thinking and explore their intuition. *Incorrect*
- Under controlled conditions, researchers collect evidence that may justify a cause-effect conclusion. (*True Answer*)Correct

• The empirical approach fosters conditions necessary for hindsight bias to occur. *Incorrect*

• Researchers may greatly overestimate eyewitness recollections when using the empirical approach. *Incorrect*

132 **Dr. Donelian wants to reduce his students' perception that psychological experiments merely document the obvious. His**

best strategy would be to ask the students to
describe how experimental hypotheses were derived from basic psychological principles. *Incorrect*

• predict the outcomes of experiments before they are told the actual results. (*True Answer*)Correct

• explain the outcomes of experiments after they are told the actual results. *Incorrect*

• personally engage in naturalistic observation. Incorrect

• survey students living on campus Incorrect

133 Historians of science describe which three attitudes as the basis of the scientific viewpoint?

- intelligence, dedication, thoroughness Incorrect
- morality, detail-orientation, cynicism Incorrect
- achievement-oriented, intellectual, empirical Incorrect
- curiosity, skepticism, humility (True Answer)Correct
- atheism, humanism, cognition *Incorrect*

134 **Which two questions exemplify the scientific attitude?**

• What do you mean? How do you know? (*True Answer*)Correct

- Who believes you? What are their qualifications? Incorrect
- How common is this answer? How many people agree? *Incorrect*
- Is this an established truth? How long has it been considered fact? *Incorrect*
- Which truths does this agree with? Which truths does it

- 135 A questioning attitude regarding psychologists' assumptions and hidden values best illustrates
 - hypotheses. Incorrect
 - critical thinking. (True Answer)Correct
 - the hindsight bias. Incorrect
 - overconfidence. *Incorrect*
 - illusory correlation. Incorrect
- 136 When you question whether anecdotal evidence can be generalized to all people, you are applying
 - overconfidence. Incorrect
 - the placebo effect. Incorrect
 - the hindsight bias. Incorrect
 - random assignment. Incorrect
 - critical thinking. (True Answer)Correct
- 137 \square Critical thinkers can best be described as
 - questioning. (True Answer)Correct
 - cynical. Incorrect
 - overconfident. Incorrect
 - pessimistic. Incorrect
 - impatient. Incorrect
- 138 **To examine assumptions, discern hidden values, evaluate** evidence, and assess conclusions is to engage in
 - naturalistic observation. Incorrect
 - critical thinking. (True Answer)Correct
 - generating hypotheses. Incorrect
 - creating operational definitions. Incorrect
 - experimentation. Incorrect
- 139 Examining correlational evidence to determine what further
 research would be needed to establish a causal relationship is an example of ______ thinking?
 - correlational Incorrect
 - experimental Incorrect
 - naturalistic Incorrect

- critical (True Answer)Correct
- hindsight Incorrect
- 140 The news media reported that a new pesticide was not harmful to humans. Which of the following statements best exemplifies
 - to humans. Which of the following statements best exemplifies critical thinking in response to this report?
 - "I think I will try this pesticide on my own garden to kill pests." *Incorrect*
 - "I don't like to use pesticides, but this one is safe." Incorrect
 - "I think I'll use this product, but I think I'll wear gloves." *Incorrect*
 - "I wonder who funded this study?" (True Answer)Correct
 - "I don't believe this study because I got a rash after using this poison on my garden." *Incorrect*
- 141 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
 - naturalistic observation. Incorrect
 - illusory correlation. Incorrect
 - hindsight bias. Incorrect
 - replication. *Incorrect*
 - a theory. (True Answer)Correct

142 What do scientists call an explanation that organizes observations and predicts future behaviors or events?

- hypothesis Incorrect
- theory (True Answer)Correct
- critical thinking Incorrect
- operational definition Incorrect
- replication Incorrect

143

- similar levels of intelligence largely because they share common genes. His idea is best described as a(n)
 - theory. (True Answer)Correct
 - replication. *Incorrect*
 - naturalistic observation. Incorrect
 - illusory correlation. Incorrect
 - hindsight bias. Incorrect

144 \mathbf{H} A hypothesis is $\mathbf{a}(\mathbf{n})$

• observable relationship between specific independent and dependent variables. *Incorrect*

• testable prediction that gives direction to research. (*True* Answer)Correct

• set of principles that organizes observations and explains newly discovered facts. *Incorrect*

• unprovable assumption about the unobservable processes that underlie psychological functioning. *Incorrect*

• statement of procedures used to define research variables. *Incorrect*

- 145 Hypotheses are best described as
 - assumptions. Incorrect
 - replications. *Incorrect*
 - explanations. Incorrect
 - confirmations. Incorrect
 - predictions. (True Answer)Correct

146 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

- the hindsight bias. Incorrect
- the placebo effect. Incorrect
- a hypothesis. (True Answer)Correct
- illusory correlation. Incorrect
- an operational definition. Incorrect
- 147 Dr. Roberts hypothesized that students in a classroom seating
 30 would get higher course grades than students seated in an auditorium seating 300. In this example,
 - Dr. Roberts has found a cause-effect relationship. Incorrect
 - Dr. Roberts has found a positive correlation between classroom size and course grades. *Incorrect*
 - the independent variable is the measurement of course grades. *Incorrect*
 - classroom size has been operationally defined. (True Answer

)Correct

• Dr. Roberts has demonstrated the importance of random sampling. *Incorrect*

- 148 A specification of how a researcher measures a research variable is known as a(n)
 - standard deviation. Incorrect
 - control condition. Incorrect
 - replication. Incorrect
 - operational definition. (True Answer)Correct
 - observation. Incorrect

149 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

- the independent variable. Incorrect
- an operational definition. (True Answer)Correct
- the double-blind procedure. Incorrect
- random assignment. Incorrect
- the dependent variable. *Incorrect*

150 **The process of replication is most likely to be facilitated by**

- the hindsight bias. Incorrect
- overconfidence. *Incorrect*
- illusory correlation. Incorrect
- operational definitions. (True Answer)Correct
- the placebo effect. Incorrect

151 **Replication involves**

- the selection of random samples. Incorrect
- perceiving order in random events. Incorrect
- repeating an earlier research study. (True Answer)Correct
- rejecting ideas that cannot be scientifically tested. Incorrect
- overestimating the extent to which others share our views. *Incorrect*
- 152 Which technique involves repeating the essence of an earlier
 research study with different participants and in different circumstances?

- replication (True Answer)Correct
- correlational research Incorrect
- random sampling Incorrect
- naturalistic observation Incorrect
- the double-blind procedure Incorrect
- 153 The explanatory power of a scientific theory is most closely linked to its capacity to generate testable
 - assumptions. Incorrect
 - correlations. Incorrect
 - predictions. (True Answer)Correct
 - variables. Incorrect
 - hypotheses. Incorrect
- 154 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?
 - naturalistic observation Incorrect
 - replication (True Answer)Correct
 - random sampling Incorrect
 - the case study Incorrect
 - standard deviation Incorrect
- 155 Why is replication important to science?
 - It allows you to obtain a representative sample of cases to study. Incorrect
 - The natural setting eliminates the artificial environment of a lab. Incorrect
 - Repeated research with similar results increases confidence in the reliability of the original findings. (True Answer

)Correct

- Researchers can test the impact of belief on behavior. Incorrect
- Minimizing preexisting differences between groups increases confidence in the findings. Incorrect
- 156 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?

- the survey Incorrect
- the case study (True Answer)Correct
- experimentation Incorrect
- naturalistic observation Incorrect
- correlation Incorrect
- 157 Which research method is typically used to examine one participant in depth, usually because the individual's situation/behavior is rare or unusual?
 - survey Incorrect
 - correlation Incorrect
 - experiment Incorrect
 - case study (True Answer)Correct
 - scientific method Incorrect
- 158 Which of the following researchers used the case study method,
 carefully observing one exceptional individual in depth to reach conclusions that might be true of all of us?
 - Jean Piaget (True Answer)Correct
 - James Randi Incorrect
 - Jane Goodall Incorrect
 - William James Incorrect
 - John B. Watson Incorrect
- 159 In 1953, H.M. underwent surgery to control his seizures.
 Doctors removed tissue from the hippocampus. As a result H.M.'s memory was severely impaired. Psychologists studied H.M.'s memory function until his death in 2008. Which research method did the psychologists utilize in this situation?
 - naturalistic observation Incorrect
 - correlation *Incorrect*
 - survey Incorrect
 - experimentation Incorrect
 - case study (True Answer)Correct
- 160 In 1848, Phineas Gage, a railroad construction foreman, survived when an explosion drove an iron rod through his head damaging the functioning of the frontal lobes. This instance provided evidence that the frontal lobe plays a role in personality and behavior. Researchers have continued to study Gage's brain to better understand this link. Which research method is being used?
 - experimentation Incorrect

- correlation Incorrect
- case study (True Answer)Correct
- naturalistic observation Incorrect
- survey Incorrect

161 The biggest danger of relying on case-study evidence is that it

- is based on naturalistic observation. Incorrect
- may be unrepresentative of what is generally true. (True

Answer)Correct

- overestimates the importance of operational definitions. *Incorrect*
- leads us to underestimate the causal relationships between events. *Incorrect*
- relies mostly on correlational rather than causational evidence. *Incorrect*
- 162 In which research method do we study one exceptional individual in depth and try to carefully draw conclusions about others based on the evidence?
 - naturalistic observation Incorrect
 - experimentation Incorrect
 - hindsight bias *Incorrect*
 - case study (True Answer)Correct
 - random sampling Incorrect
- 163 What is the primary limitation of the case study research method?
 - It is not an empirical method. Incorrect
 - The case study is not part of the scientific method. Incorrect
 - Random sampling must be used to ensure representative findings. *Incorrect*

• Individual cases can be misleading and result in false generalizations. (*True Answer*)Correct

- Correlational findings from case studies cannot be interpreted as causal. *Incorrect*
- 164 **\blacksquare \blacksquare** A researcher interested in investigating the attitudes or
 - opinions of a large sample of people is most likely to use which research method?
 - survey (True Answer)Correct

- correlation *Incorrect*
- experiment *Incorrect*
- case study *Incorrect*
- naturalistic observation Incorrect
- 165 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 divergent findings best illustrate the importance of
 - operational definition. Incorrect
 - the hindsight bias. Incorrect
 - overconfidence. Incorrect
 - random assignment. Incorrect
 - wording effects. (True Answer)Correct
- 166 Surveys indicate that people are much less likely to support "welfare" than "aid to the needy." These somewhat paradoxical survey results best illustrate the importance of
 - random sampling. Incorrect
 - wording effects. (True Answer)Correct
 - the placebo effect. Incorrect
 - naturalistic observation. Incorrect
 - hindsight bias. Incorrect
- 167 Which research method would be most appropriate for investigating the relationship between the religious beliefs of Americans and their attitudes toward abortion?
 - the survey (True Answer)Correct
 - naturalistic observation Incorrect
 - the case study Incorrect
 - experimentation Incorrect
 - random assignment Incorrect
- 168 **The complete set of cases from which samples may be drawn is** \blacksquare — called a(n)
 - control condition. Incorrect
 - population. (True Answer)Correct
 - case study. *Incorrect*
 - independent variable. Incorrect
 - survey. Incorrect

- 169 In order to learn about the political attitudes of all students enrolled at Arizona State University, Professor Marlow
 - 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)
 - independent variable. Incorrect
 - representative sample. Incorrect
 - control. Incorrect
 - dependent variable. Incorrect
 - population. (True Answer)Correct
- 170 Which procedure helps to ensure that the participants in a survey are representative of a larger population?
 - random assignment Incorrect
 - replication *Incorrect*
 - correlation Incorrect
 - naturalistic observation Incorrect
 - random sampling (True Answer)Correct
- 171 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)
 - population. (True Answer)Correct
 - representative sample. Incorrect
 - independent variable. Incorrect
 - control condition. Incorrect
 - dependent variable. Incorrect
- 172 To assess reactions to a proposed tuition hike at her college, Ariana sent a questionnaire to every fifteenth person in the
 - Ariana sent a questionnaire to every fifteenth person in the college registrar's alphabetical listing of all currently enrolled students. Ariana employed the technique of
 - random assignment. Incorrect
 - naturalistic observation. Incorrect
 - replication. *Incorrect*
 - correlation. Incorrect
 - random sampling. (True Answer)Correct
- 173 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

- replication. Incorrect
- hindsight bias. Incorrect
- the placebo effect. Incorrect
- generalizing from vivid cases. (True Answer)Correct
- randomly assigning variables. Incorrect

174 Which of the following is most useful for helping survey researchers avoid false generalizations?

- the case study Incorrect
- naturalistic observation Incorrect
- random sampling (True Answer)Correct
- operational definitions Incorrect
- standard deviations. Incorrect

175 **Psychologists who carefully watch the behavior of chimpanzee** societies in the jungle are using a research method known as

- the survey. Incorrect
- experimentation. Incorrect
- naturalistic observation. (True Answer)Correct
- the case study. Incorrect
- random sampling. Incorrect

176 To describe the behavior of animals in their native habitats, researchers are most likely to make use of

- survey research. Incorrect
- the double-blind procedure. Incorrect
- random assignment. Incorrect
- experimental methods. Incorrect
- naturalistic observation. (True Answer)Correct
- 177 To study the development of relationships, Dr. Rajiv carefully observed and recorded patterns of verbal and nonverbal behaviors among boys and girls in the school yard. Which research method did Dr. Rajiv employ?
 - naturalistic observation (True Answer)Correct
 - replication Incorrect
 - the survey Incorrect
 - the case study Incorrect

- experimentation Incorrect
- 178 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
 - survey research. Incorrect
 - naturalistic observation. (True Answer)Correct
 - experimentation. Incorrect
 - replication. Incorrect
 - correlation. Incorrect
- 179 To compare the pace of life in different countries, investigators measured the speed with which postal clerks completed a
 - measured the speed with which postal clerks completed a simple request. This best illustrates the use of a research method known as
 - the case study. Incorrect
 - naturalistic observation. (True Answer)Correct
 - random assignment. Incorrect
 - the double-blind procedure. Incorrect
 - the survey. Incorrect

180 **Correlational research is most useful for purposes of**

- explanation. Incorrect
- prediction. (True Answer)Correct
- control. Incorrect
- replication. Incorrect
- experimentation. Incorrect
- 181 \blacksquare A correlation coefficient is a measure of the
 - difference between the highest and lowest scores in a distribution. *Incorrect*
 - average squared deviation of scores from a sample mean. *Incorrect*
 - direction and strength of the relationship between two variables. (*True Answer*)Correct
 - statistical significance of a difference between two sample means. *Incorrect*
 - frequency of scores at each level of some measure. *Incorrect*

- 182 **Which of the following statistical measures is most helpful for indicating the extent to which high school grades predict college**
 - indicating the extent to which high school grades predict college grades?
 - standard deviation Incorrect
 - mean Incorrect
 - median Incorrect
 - correlation coefficient (True Answer)Correct
 - range Incorrect
- 183 To graphically represent the correlation between two variables, researchers often construct a
 - skewed distribution. Incorrect
 - scatterplot. (True Answer)Correct
 - standard deviation. Incorrect
 - bar graph. Incorrect
 - pie chart. Incorrect
- 184 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
 - causally related. Incorrect
 - negatively correlated. (True Answer)Correct
 - independent variables. Incorrect
 - dependent variables. Incorrect
 - positively correlated. *Incorrect*
- 185 If college graduates typically earn more money than high school
 graduates, this would indicate that level of education and income are
 - causally related. Incorrect
 - positively correlated. (True Answer)Correct
 - independent variables. Incorrect
 - dependent variables. Incorrect
 - negatively correlated. *Incorrect*
- 186 If the correlation between the physical weight and reading ability of children is +0.85, this would indicate that
 - there is very little statistical relationship between weight and reading ability among children. *Incorrect*
 - low body weight has a negative effect on the reading abilities of children. *Incorrect*

- better reading ability is associated with greater physical
- weight among children. (True Answer)Correct
- body weight has no causal influence on the reading abilities of children. *Incorrect*
- weight is a causal variable dependent on reading ability. *Incorrect*
- 187 Herein 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?
 - +0.60 (True Answer)Correct
 - +0.01 Incorrect
 - -0.10 Incorrect
 - -0.06 Incorrect
 - 0.00 Incorrect
- 188 **Which of the following correlation coefficients expresses the** weakest degree of relationship between two variables?
 - -0.12 (True Answer)Correct
 - +1.00 Incorrect
 - -0.99 Incorrect
 - +0.25 Incorrect
 - -0.50 Incorrect
- 189 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?
 - +0.05 Incorrect
 - -0.01 Incorrect
 - +0.10 Incorrect
 - +0.50 (True Answer)Correct
 - -0.001 Incorrect
- 190 **Which of the following correlation coefficients expresses the** strongest degree of relationship between two variables?
 - +0.10 Incorrect
 - -0.67 (True Answer)Correct
 - 0.00 Incorrect
 - -0.10 Incorrect
 - +0.59 Incorrect

- 191 To determine whether the strength of people's self-esteem is
 related to their income levels, researchers would most likely make use of
 - case studies. Incorrect
 - correlational research. (True Answer)Correct
 - experimentation. Incorrect
 - naturalistic observation. Incorrect
 - double-blind. Incorrect

192 To discover the extent to which economic status can be used to predict political preferences, researchers are most likely to use

- the case study approach. Incorrect
- naturalistic observation. Incorrect
- correlational measures. (True Answer)Correct
- experimental research. Incorrect
- random assignment. *Incorrect*

193 🚞	Study hours	Test grades
•	4	75
	5	85
	3	70
	6	70
	7	75
	1	45
	2	60
	7	90
	1	35
	7	100

Based on the information provided in the chart above, which scatterplot best represents the relationship between study hours and test grades. (In the scatterplots below, the x-axis is hours of study and the y-axis is test grades.)

- 1 Incorrect
- 2 (True Answer)Correct
- 3 Incorrect
- 4 Incorrect
- 5 Incorrect
- 194 A moderate positive correlation has been found between a person's
 weight and hours of television watched per week. Which of the following scatterplots best shows this relationship?

(Drawings 1-4 taken from www.stat.auckland.ac.nz/~teachers/2003/regression/classnotesfilledin.doc)

- 1 (True Answer)Correct
- 2 Incorrect
- 3 Incorrect
- 4 Incorrect
- 5 Incorrect

195 — Which of the following scatterplots represents the weakest — relationship?

> (Drawings 1-4 taken from www.stat.auckland.ac.nz/~teachers/2003/regression/classnotesfilledin.doc)

- 1 Incorrect
- 2 Incorrect
- 3 Incorrect
- 4 (True Answer)Correct
- 5 Incorrect

196 **Which of the following scatterplots represents the strongest** relationship?

> (Drawings 1-4 taken from www.stat.auckland.ac.nz/~teachers/2003/regression/classnotesfilledin.doc)

- 1 Incorrect
- 2 Incorrect
- 3 (True Answer)Correct
- 4 Incorrect
- 5 Incorrect
- 197 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
 - perceiving order in random events. *Incorrect*
 - generalizing from extreme examples. Incorrect
 - randomly sampling children's views. Incorrect
 - exaggerating the extent to which others share our beliefs. *Incorrect*
 - assuming that correlation proves causation. (*True Answer*)Correct
- 198 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
 - perceiving illusory correlations. *Incorrect*
 - explaining events in hindsight. Incorrect

- confusing correlation with causation. (True Answer)Correct
- generalizing from unrepresentative samples. Incorrect
- discerning order in random events. Incorrect

199 If psychologists discovered that more intelligent parents have smarter children than less intelligent parents, this would demonstrate that

• intelligence is inherited. Incorrect

• more intelligent parents provide their children with greater educational opportunities than do less intelligent parents. *Incorrect*

• the intelligence of parents and children is positively correlated. (*True Answer*)Correct

- experiments based on this relationship would indicate causation. *Incorrect*
- intelligence of children and parents are negatively correlated. *Incorrect*

200 **Which of the following statements is most correct about the** relationship between correlation and causation?

- Correlations are statistical relationships, causations are logical relationships. *Incorrect*
- Correlation indicates the possibility of a causal relationship, but it does not prove causation. (*True Answer*)Correct
- If one variable is strongly positively correlated with another variable, the relationship is causal. *Incorrect*

• if one variable is strongly negatively correlated with another variable, the relationship is not causal. *Incorrect*

• Both correlations and causations need to be proven with experimental data. *Incorrect*

- 201 Which of the following is the best definition of *illusory correlation*?
 - a statistical relationship between two variables Incorrect
 - a perceived but nonexistent correlation (*True Answer*) Correct
 - any independent variable that does not truly cause a dependent variable *Incorrect*
 - a scatterplot indicating the likelihood that a variable will or will not change *Incorrect*
 - a predication about the relationship between two

- 202 The belief that weather conditions signal the onset of arthritis pain best illustrates
 - an illusory correlation. (True Answer)Correct
 - operational definition. Incorrect
 - the hindsight bias. Incorrect
 - overconfidence. *Incorrect*
 - random sampling. Incorrect
- 203 The sequential occurrence of two highly unusual events is most likely to contribute to
 - random sampling. Incorrect
 - the hindsight bias. Incorrect
 - the placebo effect. Incorrect
 - an illusory correlation. (True Answer)Correct
 - overconfidence. Incorrect

204 **Because she had a serious traffic accident on Friday the 13th of** last month, Felicia is convinced that all Friday the 13ths will bring bad luck. Felicia's belief best illustrates

- the illusion of control. Incorrect
- illusory correlation. (True Answer)Correct
- the hindsight bias. Incorrect
- overconfidence. Incorrect
- random sampling. Incorrect

205 **Redelmeier and Tversky (1996) followed 18 patients with arthritis for 18 months. Patients were asked to record their**

• arthritis for 18 months. Patients were asked to record their pain and joint tenderness, while researchers documented changes in the weather. Nearly all patients believed that their condition was associated with weather changes, when the actual correlation was near zero. These participants need to be reminded that

- the results may not be statistically significant. Incorrect
- we are likely to recall instances that confirm our beliefs. (*True Answer*)Correct

• the sample size may not have been representative of the population. *Incorrect*

- the results of correlational studies are typically highly questionable. *Incorrect*
- subtle changes in how questions are worded can have major

effects on results. Incorrect

- 206 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
 - considering these facts as statistically significant. Incorrect
 - randomly sampling biblical passages. Incorrect
 - generalizing from extreme examples. *Incorrect*
 - assuming that most people share your opinions. Incorrect
 - perceiving order in coincidental events. (*True Answer*)Correct
- 207 A researcher interested in proving a causal relationship between two variables should choose which research method?
 - correlation Incorrect
 - survey Incorrect
 - naturalistic observation Incorrect
 - experiment (True Answer)Correct
 - case study *Incorrect*
- 208 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
 - naturalistic observation. Incorrect
 - survey research. Incorrect
 - a case study. Incorrect
 - an experiment. (True Answer)Correct
 - a correlational study. Incorrect
- 209 A research method in which an investigator manipulates factors that potentially produce a particular behavior is called a(n)
 - survey. Incorrect
 - experiment. (True Answer)Correct
 - case study. Incorrect
 - naturalistic observation. Incorrect
 - correlational method. Incorrect

- 210 **To exercise maximum control over the factors they are** interested in studying, researchers engage in
 - case studies. Incorrect
 - correlational research. Incorrect
 - experimentation. (True Answer)Correct
 - replication. Incorrect
 - surveys. Incorrect
- 211 The most foolproof way of testing the true effectiveness of a — newly introduced method of psychological therapy is by means
 - newly introduced method of psychological therapy is by means of
 - survey research. Incorrect
 - case study research. Incorrect
 - naturalistic observation. Incorrect
 - correlational research. Incorrect
 - experimental research. (True Answer)Correct
- 212 Researchers are interested in studying the relationship between poor prenatal nutrition and early cognitive development. Because of ethical concerns, which research method would be most appropriate for researchers to use?
 - survey Incorrect
 - case study Incorrect
 - experimentation Incorrect
 - correlational (True Answer)Correct
 - naturalistic observation Incorrect
- 213 **Researchers are interested in studying the impact of drugs on human fetuses. In this case, why would a correlational study be more appropriate than an experiment?**
 - because cause and effect can only be determined by a correlational study *Incorrect*
 - because correlational studies allow you to observe behavior in nonartificial environments *Incorrect*
 - because researchers using correlational studies may generalize to the population from an atypical case *Incorrect*
 - because participants could not be ethically assigned to an experimental or control condition (*True Answer*)Correct
 - because correlational studies permit researchers to estimate the reported behaviors of a whole population *Incorrect*

- 214 **The Researchers use experiments rather than other research methods in order to distinguish between**
 - facts and theories. Incorrect
 - causes and effects. (True Answer)Correct
 - case studies and surveys. Incorrect
 - random samples and representative samples. Incorrect
 - hypotheses and operational definitions. Incorrect

215 To accurately infer cause and effect, experimenters should use

- random assignment. (True Answer)Correct
- naturalistic observation. Incorrect
- standard deviations. Incorrect
- correlation coefficients. Incorrect
- scatterplots. Incorrect

To assess the effect of televised violence on aggression,
 researchers plan to expose one group of children to violent

movie scenes and another group to nonviolent scenes. To reduce the chance that the children in one group have more aggressive personalities than those in the other group, the researchers should make use of

- random assignment. (True Answer)Correct
- the double-blind procedure. *Incorrect*
- naturalistic observations. *Incorrect*
- operational definitions. *Incorrect*
- replication. Incorrect

217 \blacksquare To study the effects of noise on worker productivity,

researchers have one group of subjects work in a noisy room and a second group work in a quiet room. To ensure that any differences in the productivity of the two groups actually result from the different noise levels to which the groups are exposed, the researchers would use

- the case study. Incorrect
- correlational measurement. Incorrect
- naturalistic observation. Incorrect
- replication. Incorrect
- random assignment. (True Answer)Correct

- 218 **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
 - naturalistic observation. Incorrect
 - the hindsight bias. Incorrect
 - random sampling. Incorrect
 - the double-blind procedure. (True Answer)Correct
 - replication. *Incorrect*
- 219 To minimize the extent to which outcome differences between experimental and control conditions can be attributed to placebo effects, researchers make use of
 - random sampling. Incorrect
 - the double-blind procedure. (True Answer)Correct
 - random assignment. Incorrect
 - operational definitions. Incorrect
 - replication. Incorrect

- 220 **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
 - naturalistic observation. Incorrect
 - illusory correlation. Incorrect
 - the double-blind procedure. (True Answer)Correct
 - random sampling. Incorrect
 - the overconfidence effect. Incorrect

221 **I** In a study of the effects of alcohol consumption, some

- participants drank a nonalcoholic beverage that actually smelled and tasted like alcohol. This nonalcoholic drink was a
 - dependent variable. Incorrect
 - replication. Incorrect
 - placebo. (True Answer)Correct
 - random sample. *Incorrect*
 - double blind. Incorrect

222 The relief of pain following the ingestion of an inert substance that is presumed to have medicinal benefits illustrates

• random assignment. Incorrect

- the hindsight bias. Incorrect
- the double-blind effect. Incorrect
- the placebo effect. (True Answer)Correct
- illusory correlation. Incorrect
- In a drug treatment study, participants given a pill containing
 no actual drug are receiving a(n)
 - random sample. Incorrect
 - experimental treatment. Incorrect
 - double-blind. Incorrect
 - replication. Incorrect
 - placebo. (True Answer)Correct

224 **The healing power of positive expectations is best illustrated by**

- overconfidence. Incorrect
- illusory correlation. Incorrect
- the placebo effect. (True Answer)Correct
- hindsight bias. *Incorrect*
- replication. Incorrect

225 In an experiment designed to study the effectiveness of a new drug, research participants who receive a placebo are participating in the _____ condition.

- dependent variable Incorrect
- correlational Incorrect
- experimental Incorrect
- replication *Incorrect*
- control (True Answer)Correct
- 226 To provide a baseline against which they can evaluate the effects of a specific treatment, experimenters make use of a(n)
 - dependent variable. Incorrect
 - random sample. Incorrect
 - independent variable. Incorrect
 - control condition. (True Answer)Correct
 - experimental condition. Incorrect

227 **Random sampling is to** _____ as random assignment is to

- correlational studies; case studies Incorrect
- surveys; experiments (True Answer)Correct
- illusory correlation; control group Incorrect
- replication; correlation Incorrect
- description; prediction *Incorrect*
- 228 Which technique most clearly minimizes the likelihood that any outcome differences between the experimental and control conditions can be attributed to age or personality differences in research participants?
 - replication Incorrect
 - statistical measurement Incorrect
 - random assignment (True Answer)Correct
 - operational definitions Incorrect
 - the double-blind procedure *Incorrect*
- 229 Participants in an experiment are said to be blind if they are uninformed about
 - the experimental hypothesis being tested. Incorrect
 - whether the experimental findings will be statistically significant. *Incorrect*
 - how the dependent variable is measured. *Incorrect*
 - which experimental treatment, if any, they are receiving. (*True Answer*)Correct
 - what research method is being used. Incorrect
- 230 Which of the following is true for those assigned to the experimental group in an experiment?
 - The experimenter exerts the greatest influence on participants' behavior. *Incorrect*
 - The research participants are exposed to all the different hypotheses. *Incorrect*
 - The experimental group receives the experimental treatment (*True Answer*)Correct
 - The experimental group does not receive the experimental treatment *Incorrect*
 - The operational definition is not applied to their variables. *Incorrect*
- 231 **Which of the following is true for those assigned to a control group?**

- The experimenter exerts the greatest influence on
- participants' behavior. Incorrect
- The research participants are exposed to all the different experimental treatments. *Incorrect*
- The research participants are exposed to the most favorable levels of experimental treatment. *Incorrect*
- The experimental treatment is absent. (*True Answer*)Correct
- The operational definition is not applied to their variables. *Incorrect*
- 232 Knowing the difference between an experimental condition and a control condition is most relevant to understanding the nature of
 - correlations. Incorrect
 - random sampling. *Incorrect*
 - replication. *Incorrect*
 - independent variables. (True Answer)Correct
 - hindsight bias. Incorrect
- 233 In the hypothesis "Students who study a list of terms in the morning, just after waking up, will recall more terms than students who study the list just before falling asleep," what is the independent variable?
 - list of terms *Incorrect*
 - memorization Incorrect
 - time of day (True Answer)Correct
 - number of terms remembered Incorrect
 - students Incorrect
- 234 In the hypothesis "Students who study a list of terms in the morning, just after waking up, will recall more terms than students who study the list just before falling asleep," what is the dependent variable?
 - list of terms Incorrect
 - memorization *Incorrect*
 - time of day Incorrect
 - number of terms remembered (True Answer)Correct
 - students Incorrect
- 235 In an experiment, researchers manipulate one factor to see its effect on another factor, called the

- confounding variable. Incorrect
- operational definition. Incorrect
- control group. Incorrect
- placebo effect. Incorrect
- dependent variable. (True Answer)Correct
- 236 What technique do researchers use to reduce the impact of confounding variables?
 - hindsight bias Incorrect
 - naturalistic observation Incorrect
 - scatterplots Incorrect
 - random assignment (True Answer)Correct
 - measures of central tendency Incorrect

237 **When you read a bar graph, it is most important for you to**

- understand the concept of the overconfidence effect. Incorrect
- mentally transform the data into a scatterplot. Incorrect
- identify the value of the standard deviation. *Incorrect*
- note the range and size of the scale values. (True Answer)Correct
- remember that correlation facilitates prediction. Incorrect
- 238 **Bar graphs allow researchers to**
 - compare groups. (True Answer)Correct
 - generalize from samples. Incorrect
 - demonstrate significance. Incorrect
 - visualize correlation. Incorrect
 - avoid bias. Incorrect
- 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
 - \$10,000. (True Answer)Correct
 - \$15,000. Incorrect
 - \$16,000. Incorrect
 - \$31,000. Incorrect

- \$80,000. Incorrect
- 240 Mr. and Mrs. Klostreich have six children aged 5, 6, 6, 7, 8, and 16. The mean age of the Klostreich children is
 - 5. Incorrect
 - 6. Incorrect
 - Incorrect
 - 7. Incorrect
 - 8. (True Answer)Correct
- 241 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
 - 2. Incorrect
 - 50. Incorrect
 - 10. Incorrect
 - 12. Incorrect
 - 9. (True Answer)Correct
- 242 Six different high school students spent \$10, \$13, \$2, \$12, \$13, — and \$4, respectively, on entertainment. The mode of this group's entertainment expenditures is
 - \$9. Incorrect
 - \$10. Incorrect
 - \$11. Incorrect
 - \$12. Incorrect
 - \$13. (True Answer)Correct

243 The arithmetic average of a distribution of scores is the

- mode. Incorrect
- median. Incorrect
- standard deviation. Incorrect
- mean. (True Answer)Correct
- range. Incorrect
- 244 The most commonly reported measure of central tendency is the
 - mode. Incorrect
 - mean. (True Answer)Correct

- normal distribution. Incorrect
- median. Incorrect
- standard deviation. Incorrect

245 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

- 3. Incorrect
- 5. Incorrect
- 7. (True Answer)Correct
- 8. Incorrect
- 10. Incorrect

246 **Mr. and Mrs. Berry have five children aged 2, 3, 7, 9, and 9. The median age of the Berry children is**

- 3. Incorrect
- 6. Incorrect
- 7. (True Answer)Correct
- 8. Incorrect
- 9. Incorrect

247 \blacksquare In a distribution of test scores, which measure of central

tendency would likely be the most affected by a couple of extremely high scores?

- median Incorrect
- range Incorrect
- mode Incorrect
- standard deviation Incorrect
- mean (True Answer)Correct

248 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?

- mean (True Answer)Correct
- standard deviation Incorrect
- mode Incorrect
- median Incorrect
- range Incorrect

- 249 Seven members of a boys' club reported the following individual earnings from their sale of cookies: \$2, \$9, \$8, \$10,
 - individual earnings from their sale of cookies: \$2, \$9, \$8, \$10,
 \$4, \$9, and \$7. In this distribution of individual earnings
 - the median is greater than the mean and greater than the mode. *Incorrect*
 - the median is less than the mean and less than the mode. *Incorrect*
 - the median is greater than the mean and less than the mode. *Incorrect*
 - the median is less than the mean and greater than the mode. (*True Answer*)Correct
 - the median is equal to the mean and equal to the mode. *Incorrect*
- 250 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
 - the mean is equal to the mode and equal to the median. *Incorrect*
 - the mean is less than the mode and equal to the median. *Incorrect*
 - the mean is equal to the mode and greater than the median. *Incorrect*
 - the mean is greater than the mode and greater than the median. *Incorrect*
 - the mean is less than the mode and less than the median. (*True Answer*)Correct
- 251 To understand the British newspaper headline "Income for 62% Is Below Average," it is necessary to appreciate the distinction between the _____ and the mean.
 - range Incorrect
 - standard deviation Incorrect
 - mode Incorrect
 - correlation Incorrect
 - median (True Answer)Correct
- For which of the following distributions of scores would the median most clearly be a more appropriate measure of central tendency than the mean?
 - 16, 28, 4, 8, 24 Incorrect
 - 9, 6, 9, 12, 9 Incorrect

- 8, 9, 12, 10, 16 Incorrect
- 6, 18, 4, 5, 2 (True Answer)Correct
- 3, 4, 3, 4, 2 Incorrect
- 253 For which of the following distributions of scores would the median most clearly be a more appropriate measure of central tendency than the mean?
 - 9, 8, 9, 8, 7 Incorrect
 - 10, 22, 8, 9, 6 (True Answer)Correct
 - 12, 6, 8, 5, 4 Incorrect
 - 12, 15, 12, 9, 12 Incorrect
 - 23, 7, 3, 27, 16 Incorrect
- 254 Which measure of central tendency would be most appropriate in determining housing values in a particular community?
 - range Incorrect
 - mode Incorrect
 - median (True Answer)Correct
 - mean Incorrect
 - standard deviation Incorrect
- 255 Why would the median, rather than the mean, be the appropriate measure of central tendency in determining
 - appropriate measure of central tendency in determining housing values in a particular community?
 - The median is useful for measuring how much values deviate from one another. *Incorrect*
 - The median is minimally affected by extreme scores. (*True* Answer)Correct
 - The median is best used to sort values into groups. Incorrect
 - The median allows you to examine the gap between the lowest and highest value. *Incorrect*
 - The median allows you to generalize from representative samples to the general population. *Incorrect*
- 256 Which measure of central tendency would a baseball manager be most likely to rely on in picking a pinch hitter in a tie game?
 - median Incorrect
 - mode Incorrect
 - range Incorrect
 - mean (True Answer)Correct
 - standard deviation Incorrect

257 **Variation is to central tendency as** _____ is to _____.

- range; median (True Answer)Correct
- median; mean *Incorrect*
- mode; mean Incorrect
- scatterplot; bar graph Incorrect
- correlation; scatterplot Incorrect

258 The difference between the highest and lowest scores in a distribution is the

- mean. Incorrect
- range. (True Answer)Correct
- median. Incorrect
- standard deviation. Incorrect
- correlation coefficient. Incorrect

259 **The range is**

- a total population from which samples may be drawn. Incorrect
- the difference between the highest and lowest scores in a distribution. (True Answer)Correct
- the most commonly used measure of variation. Incorrect
- the average deviation of scores from the mean. Incorrect
- the most frequently occurring score in a distribution of scores. Incorrect
- 260 The IQ scores of the five members of the Duluth family are 100, 82, 104, 96, and 118. For this distribution of scores, the range is
 - 6. Incorrect
 - 14. Incorrect
 - 36. (True Answer)Correct
 - 48. Incorrect
 - 100. Incorrect
- ²⁶¹ 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
 - 7. Incorrect

- 11. Incorrect
- 12. Incorrect
- 14. (True Answer)Correct
- 21. Incorrect
- 262 Which of the following is a measure of the degree of variation among a set of events?
 - mean Incorrect
 - scatterplot Incorrect
 - standard deviation (True Answer)Correct
 - median Incorrect
 - correlation coefficient Incorrect
- 263 Evelyn wants to know how consistent her bowling scores have been during the past season. Which of the following measures would be most relevant to this specific concern?
 - mean Incorrect
 - median Incorrect
 - scatterplot Incorrect
 - standard deviation (True Answer)Correct
 - correlation coefficient Incorrect
- Professor Woo noticed that the distribution of students' scores
 on her last biology test had an extremely small standard deviation. This indicates that the
 - test was given to a very small class of students. Incorrect
 - students' scores tended to be very similar to one another. (*True Answer*)Correct
 - mean test score was lower than the median score. Incorrect
 - students generally performed very well on the test. Incorrect
 - test was a poor measure of the students'
 - knowledge. Incorrect
- 265 On a 10-item test, three students in Professor Hsin's advanced
 chemistry seminar received scores of 2, 5, and 8, respectively.
 For this distribution of test scores, the standard deviation is
 - equal to the square root of
 - 3. Incorrect
 - 4. Incorrect
 - 5. Incorrect
 - 6. (True Answer)Correct
 - 9. Incorrect

266 Which measure of variation is most affected by extreme scores?

- mean Incorrect
- mode Incorrect
- standard deviation Incorrect
- range (True Answer)Correct
- median Incorrect

267 If scores on the Wechsler Adult Intelligence Scale (WAIS) are normally distributed, with a mean of 100 and a standard deviation of 15, what percentage of scores will fall between 85 and 115?

- 34 Incorrect
- 47 Incorrect
- 68 (True Answer)Correct
- 80 Incorrect
- 95 Incorrect

268 The distributions of which of the following types of data are most likely to form a normal curve?

- scores on a homework assignment Incorrect
- years of historical events Incorrect
- age in a school grade Incorrect
- income Incorrect
- height (True Answer)Correct

269 Coach Vroman attended a clinic to improve his basketball coaching skills. Afterward, he randomly assigned his seventhgrade players to two groups: Group 1 will be coached by the new method and Group 2 will be coached by his old method. He then measured their performance at one team practice to judge the effectiveness of the new coaching method. Which of the following might affect the statistical significance of his study?

• Approval from an Institutional Review Board (IRB) was not obtained before beginning his study. *Incorrect*

• To determine the effectiveness of the new method, Coach Vroman must first find the median score of each group. *Incorrect*

- By testing only two groups, Coach Vroman's sample size may be too small and unrepresentative. (*True Answer*)Correct
- Coach Vroman should wait until next year to test the

incoming freshman because his sample was biased. *Incorrect*A third variable, such as height, might affect the relationship between the two variables. *Incorrect*

270 Dr. DeVries is interested in measuring how practice in problem solving affects this ability. The population of interest is high school seniors, and the sample consists of students who attend an exclusive college preparatory school. Half of the sample receives practice in solving particular types of problems, while the other half does not. Both groups take the same problemsolving test. Which of the following might best explain why Dr. DeVries may not be able to generalize his findings?

• He is not taking into account how the scores on the test might deviate from one another. *Incorrect*

- His data may be positively skewed. Incorrect
- He should have conducted his experiment in a lab instead of a natural setting. *Incorrect*
- His sample is not representative of the population. (*True* Answer)Correct

• He did not receive approval from an Institutional Review Board (IRB) before beginning his research. *Incorrect*

- 271 Why are researchers careful to use large, representative samples in their studies?
 - The general public perceives these kinds of samples to be more scientific. *Incorrect*
 - Policymakers demand larger, more representative sample sizes for political reasons. *Incorrect*
 - Statistical methods only work for larger sample sizes. *Incorrect*
 - It is more profitable to work with larger samples. Incorrect
 - Larger, representative sample sizes help ensure reliable and valid results. (*True Answer*)Correct
- **272 To determine whether a research finding is statistically significant, researchers**
 - compare the means of the control group and experimental group. (*True Answer*)Correct
 - survey other researchers to ensure the hypothesis is significant. *Incorrect*
 - perform detailed case studies to validate findings. Incorrect
 - confirm correlational evidence with empirical

findings. Incorrect

- convert positive correlations to negative ones. Incorrect
- 273 Which makes finding statistical significance more likely?
 - random sampling Incorrect
 - skewed distributions Incorrect
 - small sample size Incorrect
 - large sample size (True Answer)Correct
 - operational definitions Incorrect
- 274 **Why are researchers so careful about drawing conclusions** regarding statistical significance?
 - Statistical significance determines which research method should be used for a hypothesis. *Incorrect*
 - They want to make sure an observed difference isn't due to chance. (*True Answer*)Correct
 - Statistical significance is primarily a subjective decision, so researchers need to be more careful. *Incorrect*
 - They need to make sure the results are important. Incorrect
 - Statistical significance is used in case studies, not
 - experiments, so researchers do not have a control group to rely on. *Incorrect*
- 275 **What does the effect size of research findings tell you that statistical significance does not?**
 - whether or not the result is due to random factors or the experimental treatment *Incorrect*
 - if the independent variable had an impact on the dependent variable *Incorrect*
 - if the confounding variables influenced the result of the study *Incorrect*
 - the magnitude of the finding (True Answer)Correct
 - validity of the results Incorrect
- 276 When the observed difference between the means of an experimental group and control group are not likely due to chance, researchers conclude that this difference is
 - positively correlated. Incorrect
 - highly variable. Incorrect
 - reliable. Incorrect

- statistically significant. (True Answer)Correct
- experimentally empirical. Incorrect
- 277 **I f** a result is statistically significant, this means that the
 - results of the test are positively correlated with another factor. Incorrect
 - participants received scores above the 50 percentile. Incorrect
 - results of the research have practical significance. Incorrect
 - scores were 1 standard deviation from the mean. Incorrect
 - psychologist accepts a 5 percent likelihood that the results occurred by chance. (True Answer)Correct
- 278 A soft drink company recently invested in a new advertising campaign to increase sales. Which of the following would allow executives to best judge the results of their latest commercials?
 - compute the range based on the highest monthly sales this year with the lowest sales of last year Incorrect
 - compare the mean sales of soft drinks with that of their major competitor *Incorrect*
 - compute the mode to determine which soft drinks have the highest sales Incorrect
 - compare the means of sales before and after the beginning of the new campaign to determine statistical significance (True Answer)Correct
 - compute the median of sales for each of their product lines, then compare Incorrect
- 279 What do researchers call a difference between the means of experimental and control groups when they know the averages are reliable and the difference between the groups is unlikely due to random chance or extraneous variables?
 - operationally defined Incorrect
 - statistically significant (True Answer)Correct
 - normal curve Incorrect
 - standard deviation Incorrect
 - experimental group Incorrect
- 280 In 1963, Stanley Milgram reported that 65% of research participants, at the request of the experimenter, would
 - administer phony shocks that they considered real, to a

stranger. He demonstrated how obedient humans can be to authority figures. Some critics contend that Milgram's findings cannot be used to predict behavior in real life. How might Milgram respond to this criticism?

• "Laboratory research is like 'real life' so results can be used to predict such behavior." *Incorrect*

• "It's impossible to study obedience in the 'real world' so laboratory research is the only option." *Incorrect*

• "Laboratory research allows you to identify general principles that do generalize to other 'real world'

contexts." (True Answer)Correct

• "All valuable psychological research is conducted in the lab." *Incorrect*

• "The situation was not artificial, but justifiable in demonstrating the impact of the situation on human behavior." *Incorrect*

- 281 Which of the following are considered to be limitations of psychological experiments conducted in laboratory environments?
 - Laboratory experiments allow researchers to have control over variables. *Incorrect*
 - Experiments conducted in laboratories allow researchers to make causal inferences. *Incorrect*
 - It's difficult to accurately measure the research variables. *Incorrect*
 - Laboratories are artificial environments, so behavior might not apply to the real world. (*True Answer*)Correct
 - Researchers tend to ignore ethical considerations in the pursuit of proving their hypotheses. *Incorrect*

282 How would a researcher likely respond to the statement, "Science can't really prove anything, because lab experiments

— "Science can't really prove anything, because lab experiments are so artificial and not like the real world"?

• "That's not true. Lab experiments are usually very realistic." *Incorrect*

- "Most experiments aren't done in the laboratory." Incorrect
- "The goal of science is to establish hypotheses, not prove things." *Incorrect*
- "Laboratory experiments can establish general principles that generalize to other contexts." (*True Answer*)Correct
- "When operational definitions are inadequate, laboratory experiments are the only choice." *Incorrect*

- 283 Which of the following generalizations about culture and gender is most correct?
 - Even when specific attitudes and behaviors vary by gender or across cultures, underlying principles are often very similar. (*True Answer*)Correct
 - Culture is such a powerful influence on behavior, psychologists do not generalize principles across different cultures. *Incorrect*
 - Many psychological theories apply to people from different cultures, but theories are interpreted differently for each gender. *Incorrect*
 - Culture and gender are influences on some personality variables, but not general psychological theories or behaviors. *Incorrect*
 - Culture and gender are biological variables, which should not impact behaviors. *Incorrect*
- 284 Slender women are considered especially beautiful in one country; in another country, stout women are seen as particularly attractive. In both countries, however, women perceived as very beautiful receive preferential treatment. This best illustrates that ______ often underlie cultural differences.
 - negative correlations Incorrect
 - common psychological processes (True Answer)Correct
 - gender differences Incorrect
 - unconscious preferences Incorrect
 - genetic dissimilarities *Incorrect*
- 285 The enduring traditions, attitudes, and behaviors shared by a large group of people constitutes their
 - culture. (True Answer)Correct
 - normal curve. Incorrect
 - wording effects. Incorrect
 - statistical significance. Incorrect
 - operational definition. Incorrect
- 286 American males shake hands in greeting; Japanese men bow. However, people can communicate with a smile. What does this
 - However, people can communicate with a smile. What does this tell us about the role of culture in understanding our psychology?

- Culture shapes our behavior, but certain underlying processes guide people everywhere. (*True Answer*)Correct
 Psychologists cannot generalize theories to different cultures because culture is such a powerful influence on behavior. Incorrect
- Culture is a biological force that does not affect overt social behaviors. *Incorrect*
- Biological differences divide the human family and our behaviors. *Incorrect*
- An awareness of cultural differences is unimportant to the study of behavior and mental processes. *Incorrect*
- 287 **Researchers have found that men and women learn to walk at about the same age, experience the same sensations of light, and**
 - about the same age, experience the same sensations of light, and exhibit similar overall intelligence. These findings support the idea that
 - the same underlying processes guide people everywhere. (*True Answer*)Correct
 - psychology is based on intuition and common sense. *Incorrect*
 - hindsight bias is inevitable. Incorrect
 - correlation does not mean causation. Incorrect
 - women and men are overwhelmingly different. Incorrect
- 288 **Professional psychological associations require researchers to**
 - study animals only in their natural environment. Incorrect
 - obtain informed consent before using any animals as subjects in research. *Incorrect*
 - justify the use of animals in research before an Institutional Review Board (IRB). *Incorrect*
 - minimize infection, illness, and pain in animal subjects. (*True Answer*)Correct
 - protect only cats, dogs, and primates, not mice or rats, from unnecessary pain. *Incorrect*
- 289 In 1920, behaviorist John B. Watson conditioned an 8-monthold infant, Albert. He was turned over to Dr. Watson without permission. This violates which ethical principle developed by the American Psychological Association?
 - coercion Incorrect
 - confidentiality *Incorrect*

- debriefing Incorrect
- informed consent (True Answer)Correct
- protection from harm *Incorrect*
- A researcher who deceives participants about the goals of the research needs to fully inform them of the true nature of the study later, according to which ethical principle of human experimentation?
 - informed consent Incorrect
 - protection from harm Incorrect
 - confidentiality Incorrect
 - debriefing (True Answer)Correct
 - coercion Incorrect
- 291 **The American Psychological Association and British**
 - Psychological Society have developed ethical principles urging investigators to
 - avoid the use of monetary incentives in recruiting people to participate in research. *Incorrect*
 - forewarn potential research participants of the exact
 - hypotheses that the research will test. Incorrect
 - avoid the manipulation of independent variables in research involving human participants. *Incorrect*
 - explain the research to the participants after the study has been completed. (*True Answer*)Correct
 - increase the difficulty level of research endeavors while maintaining validity. *Incorrect*
- **292** Which of the following defines ethical principles that should guide human experimentation?
 - control group, random sampling, random assignment *Incorrect*
 - case study, naturalistic observation, survey Incorrect
 - informed consent, protection from harm, confidentiality, debriefing (*True Answer*)Correct
 - volunteer participants only, no deception, incentives for participation *Incorrect*
 - effect size, statistical significance, measures of central tendency, variation *Incorrect*

A researcher who gathers and analyzes data from student essay test responses without talking with the students about the study violates which ethical principle of human experimentation?

- informed consent (True Answer)Correct
- protection from harm Incorrect
- confidentiality Incorrect
- debriefing *Incorrect*
- coercion Incorrect
- A researcher who publishes the results of a case study might be most worried about violating which ethical principle of human experimentation?
 - informed consent Incorrect
 - protection from harm Incorrect
 - confidentiality (True Answer)Correct
 - debriefing Incorrect
 - coercion Incorrect
- 295 In 1954, the U.S. Supreme Court ruled that schools must be desegregated, meaning Black and White children must attend the same schools instead of being separated. In its decision, the Court cited the expert testimony of two psychologists, illustrating the negative impact of such separation on Black children. This example illustrates that psychology
 - is nothing more than common sense and intuition. Incorrect
 - can be used to manipulate people. Incorrect
 - tries to decide what our goals should be. Incorrect
 - can help people understand some of our world's great problems. (*True Answer*)Correct
 - is becoming dangerously powerful. Incorrect
- 296 Stanley Milgram designed his influential studies on obedience in response to thinking about the Holocaust. In their defense, Nazi war criminals said they had committed such atrocities against the Jews and others because they were "just following orders." Milgram's motivation to study obedience to authority illustrates that
 - human behavior can be tested by means of experimentation. *Incorrect*
 - psychology is based on common sense and
 - intuition. Incorrect
 - psychology is not value free; it affects what psychologists study. (*True Answer*)Correct

- psychologists must be aware of ethical concerns when using
- human participants in experiments. Incorrect
- the personal bias of researchers make their findings
- suspect. Incorrect

297 **Psychologists' personal values and goals**

- are carefully tested by means of observation and experimentation. *Incorrect*
- lead them to avoid experiments involving human participants. *Incorrect*
- can bias their observations and interpretations. (*True Answer*)Correct
- have very little influence on the process of scientific observation. *Incorrect*
- affect their work only if they are different from the norm. *Incorrect*

298 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.

> Student responses should refer to a specific limit of everyday reasoning, such as hindsight bias or overconfidence and at least one of the methods of psychological research, referring specifically to why psychologists gather data through research methods in order to reach empirical decisions.

299 The table below lists the scores of eight research participants 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).

•	Research	Anxiety	Cigarettes
•	Participant	Test Score	•
•	???????????????????????????????????????	???????????????????????????????????????	
•	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.

Students should construct an accurate scatterplot and explain that the data indicate an overall positive correlation. Students should also provide at least two possible explanations for this positive correlation. These explanations can imply a causal relationship, but students should demonstrate some understanding that this positive correlation does not *prove* a causal relationship.

300 Speaking at a college graduation ceremony, Professor Robson compared college graduates with adults who are less educated. She correctly noted that college graduates pay more taxes, vote more frequently, engage in more volunteer activities in their communities, and are less likely to go to jail than less-educated adults. The professor concluded that colleges obviously do great things for society. How might you reasonably challenge the way the professor reached her conclusion?

•

Students should point out that Professor Robson is inferring a causal relationship based on correlational data, and that a correlational study cannot prove a causal relationship. In addition, students may point out that some of the relationships Professor Robson highlights may be illusory correlations.

301 Design an experiment to test whether alcohol consumption influences people's tendency to become socially aggressive. In your experimental design, identify the following experimental elements and procedures: hypothesis, random sampling, random assignment, experimental group, control group, independent variable, dependent variable, ethics in research.

> Students should design an experiment in which the hypothesis identifies alcohol as the independent variable and social aggression as the dependent variable. Students should also distinguish the experimental group (the group that consumes alcohol) from the control group (the group that does not consume alcohol and/or consumes a placebo). Finally, students

should include at least one detail about complying with ethical guidelines from the research with human participants. 302 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? Students should calculate the modal score as 11, the median as 7, the mean as 8, and the range as 5–11. They should conclude that the mean would be most affected by the inclusion of the additional test score of 2 (it would reduce the mean of the distribution). A researcher wants to investigate people's attitudes toward 303 violence on television. Explain which of the following research methods the researcher should use and why: case study, survey, or naturalistic observation. Students should explain that this research question is best investigated with the survey because it is the only method in this list that can gather information about a sample of attitudes toward violence on television. A case study could only gather data about one person's attitude, and a naturalistic observation study couldn't gather data about attitudes. A researcher gathered evidence about the number of times 304 different age students consult the internet to check facts for research reports. Participants between 10 and 15 years old consulted the internet an average of 10.1 times during the research report, and participants between 15 and 25 years old averaged 7.3 times. Explain what "statistical significance" would mean in the context of this study. Students should explain that if the difference between the means of these two groups are statistically significant, then the difference between the groups is not likely due to chance, and the researcher could safely conclude that age impacts internet use in this context. 305 **Professor Hahn received a grant to study the relationship** between childhood obesity and video game playing. Answer the following questions about Professor Hahn's research study: A. Explain how Professor Hahn could use each of the following

research methods to study this topic:

- Case study
- Survey
- Naturalistic observation

B. Design an experiment Professor Hahn could use to investigate this topic, including the following terms in the context of your design.

- Operational definition
- Independent and dependent variable
- Random assignment

C. Explain how Professor Hahn's experimental design would conform to ethical guidelines.

D. Explain how Professor Hahn would use statistics (including at least one measure of central tendency and inferential statistics) to examine the data from the study to reach a conclusion.

Point 1: Case Study: Students should note that Professor Hahn should choose one child and gather detailed information about that child's video game habits and health (such as eating habits, weight, and other related factors).

Point 2: Survey: Students should note that Professor Hahn should gather data from a large sample of children representing his population of children through a survey measuring both video game playing and obesity.

Point 3: Naturalistic observation: Students should note that Professor Hahn should gather data about children's video game habits and health by observing behaviors in a public setting.

Point 4: Operational definition: Students should provide at least one correct operational definition for video game playing (such as timing how long children play video games) and obesity (such as calculating body mass index).

Point 5: Independent and dependent variables: Students should identify video game playing as the independent variable and obesity as the dependent variable in the experimental design.

Point 6: Random assignment: Students should explain how participants could be randomly assigned to either the

experimental condition or the control condition (the conditions should differ based on the independent variable: video game playing).

Point 7: Ethical guidelines: Students' experimental design should conform to ethical guidelines for human participants, including accurate descriptions of how the experiment includes informed consent, protection from harm, confidentiality, and debriefing.

Point 8: Use of Statistics: Students' explanation of how Professor Hahn would use statistics to examine results of the experimental design they described should include at least one measure of central tendency (mean, median, or mode) and the idea that inferential statistics would be used to determine if the difference between the experimental group and the control group is statistically significant.