Use the following to answer questions 1-10:

Scenario I

Scenario I is based on and presents fabricated data inspired by the following study:

Ishkanian, G., Blumenthal, H., Webster, C. J., Richardson, M. S., Ames, M. (2007). Efficacy of sumatriptan tablets in migraineurs self-described or physician-diagnosed as having sinus headache: A randomized, double-blind, placebo-controlled study. *Clinical Therapeutics, 29,* 99–109. doi:10.1016/j.clinthera.2007.01.012

Migraine Treatment

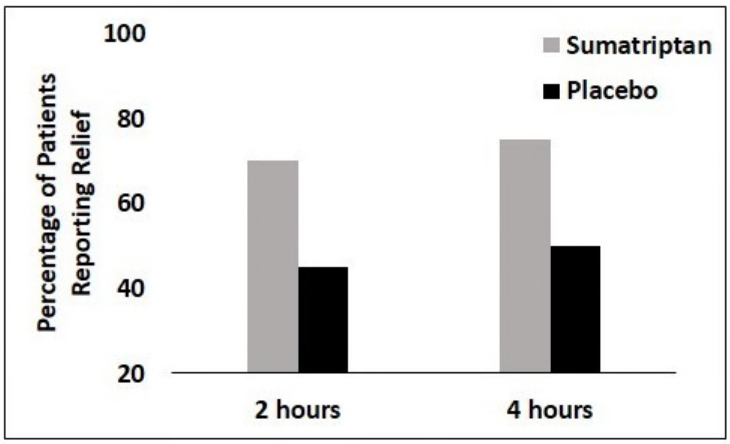
Ishkanian and colleagues assessed the efficacy and tolerability of a prescription drug, sumatriptan succinate 50-mg tablets, in patients with migraines. The study was a randomized, double-blind, placebo-controlled, and multicenter project. Patients were adults aged 18 to 65 years who first approached their physicians with self-described or physician-diagnosed "sinus headaches," which ultimately met International Headache Society criteria for migraine. Patients were randomized to receive either one sumatriptan 50-mg tablet or matching placebo tablet. The primary efficacy end point was headache response (moderate or severe headache pain, reduced to mild or no headache pain) at 2 and 4 hours postadministration. Tolerability was assessed through patient-reported adverse events (AEs).

Demographics of the participant sample is shown in Table 2.1. Headache response data are shown in Figure 2.1. Both treatments were generally well tolerated. The most commonly reported AEs across sumatriptan and placebo groups, respectively, included dizziness (5% vs. <1%), nausea (3% vs. 2%), other pressure or tightness (4% vs. 0%), and temperature sensations (2% vs. 0%).

Table 2.1 Demographic Characteristics of Participants: Means (Std Dev)

Strata	Sumatriptan (*n* = 108)	Placebo (*n* = 107)
Gender: female	71%	69%
Race: White	69%	64%

Figure 2.1 Sumatriptan, Placebo, and Headache Response



1. (Scenario I) Suppose that a physician read this study in a scholarly journal and then decided to prescribe sumatriptan 50 mg to one of her patients who presented with a sinus headache that also met criteria for migraine. In this situation, sumatriptan 50 mg would likely be considered a(n):
   A) research-based treatment.
   B) evidence-based treatment.
   C) placebo-controlled treatment.
   D) pharmaceutically-recommended treatment.

2. (Scenario I) If a physician wanted to find this study in a scientific database, which search terms would you recommend?
   A) suma*
   B) migraine AND sinus AND headache
   C) sumatriptan AND migraine AND sinus
   D) sumatriptan AND sinus NOT headache

3. (Scenario I) In which section of the previously mentioned article would one MOST likely find a verbal description of the statistical significance of the data shown in Figure 2.1?
   A) abstract
   B) methods
   C) results
   D) conclusions

4. (Scenario I) In the previously described study, treatment group (sumatriptan vs. placebo) represents which type of variable?
   A) independent
   B) dependent
   C) confounding
   D) operational

5. (Scenario I) In the previously described study, the percentage of patients who experienced headache relief represents which type of variable?
   A) independent
   B) dependent
   C) confounding
   D) operational

6. (Scenario I) Which number MOST closely approximates the percentage of patients reporting headache relief 2 hours after the administration of sumatriptan 50 mg?
   A) 90
   B) 70
   C) 50
   D) 40

7. (Scenario I) Which number MOST closely approximates the percentage of patients reporting headache relief 4 hours after the administration of the placebo?
   A) 90
   B) 70
   C) 50
   D) 40

8. (Scenario I) Suppose that the percentage of participants who experienced relief 2 hours after sumatriptan treatment was significantly higher than the percentage that experienced relief with the placebo treatment. Which statistical statement would indicate the MOST significant result?
   A) $p = .05$
   B) $p < .05$
   C) $p > .05$
   D) $p < .001$

9. (Scenario I) What additional information not previously included would be essential for assessing the validity of Ishkanian and colleagues' results for patients suffering from sinus headaches that meet criteria for migraines?
   A) the percentage of male versus female patients in the study
   B) the percentage of patients who experienced relief from sinus symptoms
   C) the percentage of patients who experienced relief from cold symptoms
   D) the percentage of patients who received the placebo treatment

10. (Scenario I) Based on the previously given information, which conclusion could reasonably be supported by the results of the study?
   A) Compared to men, women are more likely to report headache pain.
   B) Sumatriptan is a good treatment for headaches.
   C) Sumatriptan 50 mg may be an effective treatment for sinus headaches that meet migraine criteria.
   D) Sumatriptan 50 mg was equivalent to placebo treatment for sinus headaches that meet migraine criteria.

Use the following to answer questions 11-15:

Scenario II

Scenario II is based on and presents fabricated data inspired by the following study:

Moser, J. S., Moran, T. P., Schroder, H. S., Donnellan, M. B., Yeung, N. (2013). On the relationship between anxiety and error monitoring: A meta-analysis and conceptual framework. *Frontiers in Human Neuroscience, 7,* 1–19. doi:10.3389/fnhum.2013.00466

Anxiety and Error Monitoring

Although a number of previous studies have examined the potential relationship between anxiety and error monitoring (a person's ability to detect when they make errors and learn from their mistakes), the nature of this relationship remains unclear. Many of the studies on this topic have used event-related brain potentials (ERPs), a noninvasive way to measure a participant's brain activity at the scalp while the participant views or listens to information. The error-related negativity (ERN) is one type of ERP that can be used to measure indices of error monitoring processes in the human brain. The amplitude or height of the ERN wave changes after errors are committed during various decision-making tasks. Some studies have linked ERN amplitude to the extent of the participant's vigilance to errors, as well as their anxiety levels, suggesting that exaggerated error monitoring may be positively associated with increased anxiety symptoms.

To clarify the potential relationship between anxiety and error monitoring, Moser and colleagues conducted a meta-analysis and critical review of the literature on this topic. They searched for published studies examining the ERN and anxiety using the MEDLINE-PubMed and Google Scholar databases. Additional studies were identified from the reference sections of the articles obtained from online searches. This search yielded 75 studies. This group of studies was further reduced to 37 studies through the application of inclusion/exclusion criteria which defined acceptable measures of anxiety symptoms as well as valid paradigms for eliciting the ERN. Participant populations and their representation across these 37 studies are detailed in Table 2.2. Results of the meta-analysis revealed that, overall, anxiety demonstrated a robust, "small-to-medium" relationship with enhanced ERN ($r = –0.26$). Further, studies that focused on a type of anxiety called anxious apprehension (or worry) show a threefold greater effect size estimate ($r = –0.36$) than those focusing on other measures of anxiety ($r = –0.08$).

Table 2.2 Participant Characteristics

Population	Percentage of Studies
Healthy adult volunteers	51
Anxiety disordered samples	43
Healthy children	6

11. (Scenario II) Moser and colleagues reported using two different scientific databases: MEDLINE-PubMed and Google Scholar. Based on the information presented in your textbook, what conclusion can you draw about the adequacy of the search engines used in this study?
    A) MEDLINE-PubMed is superior to Google Scholar.
    B) Google Scholar is superior to MEDLINE-PubMed.
    C) Both MEDLINE-PubMed and Google Scholar are inferior to PsycINFO.
    D) There is no “best” database because different users place different values on the features of each one.

12. (Scenario II) Moser and colleagues report a greater effect size estimate for the relationship between ERN measures and anxious apprehension (or worry) compared to the relationship between ERN and anxiety overall. What does this mean?
    A) In the clinical setting, ERN measures are more likely to be related to general anxiety.
    B) The strength of the relationship between ERN and anxious apprehension is stronger than that of ERN and other measures of anxiety.
    C) The strength of the relationship between ERN and anxious apprehension is weaker than that of ERN and other measures of anxiety.
    D) In the clinical setting, ERN measures are more likely to be related to depression.

13. (Scenario II) Which term BEST describes Moser and colleagues' research?
    A) qualitative
    B) quantitative
    C) mixed-methods
    D) clinical

14. (Scenario II) If Moser and colleagues wanted to enhance the external validity of their meta-analytic study, which strategy would you recommend?
    A) including a more proportional number of studies across different participant groups
    B) entering a larger number of search terms into MEDLINE-PubMed
    C) searching in a larger number of scientific databases
    D) focusing only on studies that were conducted in the United States

15. (Scenario II) Based on the previously given information, which conclusion could reasonably be supported by the results of the study?
    A) Anxious people are more likely to be apprehensive and to experience worry.
    B) Anxious people may have exaggerated error monitoring that can be measured in their ERNs.
    C) Anxious people, particularly those who experience anxious apprehension/worry, may be more likely to have exaggerated error monitoring, as indexed by the ERN.
    D) Anxious people are more likely to make bad decisions and less likely to learn from their mistakes.

Use the following to answer questions 16-20:

Scenario III

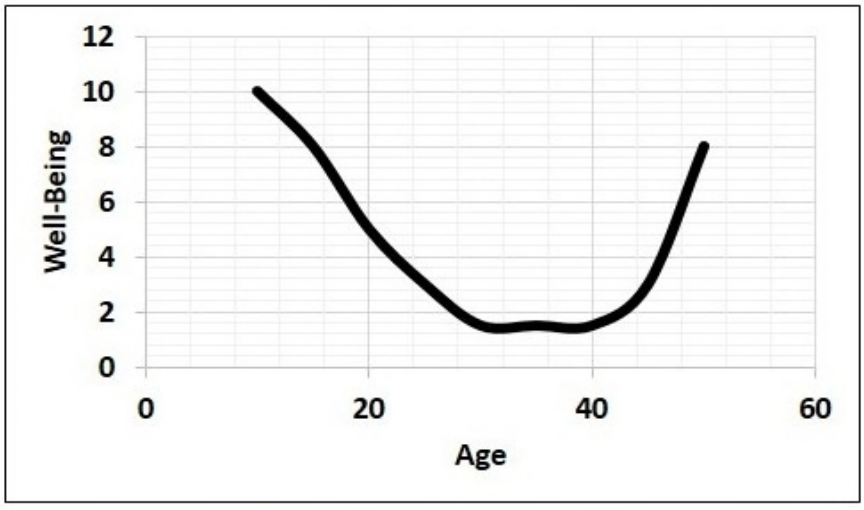
Scenario III is based on and presents fabricated data inspired by the following study:

Weissa, A., King, J. E., Inoue-Murayamad, M., Matsuzawae, T., & Oswald, A. J. (2012). Evidence for a midlife crisis in great apes consistent with the U-shape in human well-being. *Proceedings of the National Academy of Sciences, 109,* 19949–19952. doi:10.1073/pnas.1212592109

Do Great Apes Have Midlife Crises?

Weissa and colleagues examined well-being across the life span in great apes (two samples of chimpanzees and one sample of orangutans). Each of the groups included individuals ranging from infancy to old adulthood. Animals were housed in zoos, animal sanctuaries, and research centers. Raters were zookeepers, volunteers, and researchers and caretakers familiar with the individual apes. On a single occasion, raters assessed the animals' well-being using a four-item questionnaire. Raters indicated, on a 7-point scale, the degree to which an animal was in a positive versus negative mood, how much pleasure the animal derived from social situations, how successful the animal was in achieving its goals, and how happy the rater would be if he or she could be the animal for a week. Well-being was computed by averaging each item across raters and then averaging these four scores. Acceptable interrater reliability was achieved. Selected results are shown in Figure 2.2.

Figure 2.2 Relationship Between Age and Well-Being in Great Apes



16. (Scenario III) Which term BEST describes this research?
    A) qualitative
    B) quantitative
    C) mixed-methods
    D) clinical

17. (Scenario III) Which term BEST describes this research?
    A) descriptive
    B) experimental
    C) longitudinal
    D) sequential

18. (Scenario III) Which of these measurements was used to establish the well-being measure?
    A) mean
    B) median
    C) mode
    D) standard deviation

19. (Scenario III) Suppose that human well-being follows this pattern: high when young, low at midlife, high when old. Which statement about Figure 2.2 is MOST accurate?
    A) Humans and apes both have a tendency toward erratic behavior at midlife.
    B) Humans and apes show similar patterns of well-being over the life span.
    C) Compared to humans, apes are more emotionally stable across the life span.
    D) Compared to apes, humans are more emotionally stable across the life span.

20. (Scenario III) Which would be the BEST alternative title for this study?
    A) Midlife Crisis: Not Just for Humans Anymore
    B) Captive Great Apes and Humans Both Exhibit Decreases in Well-Being During Midlife
    C) Great Apes and Their Misspent Youth
    D) Unlike Humans, Great Apes Enjoy Their Golden Years

Use the following to answer questions 21-25:

Scenario IV

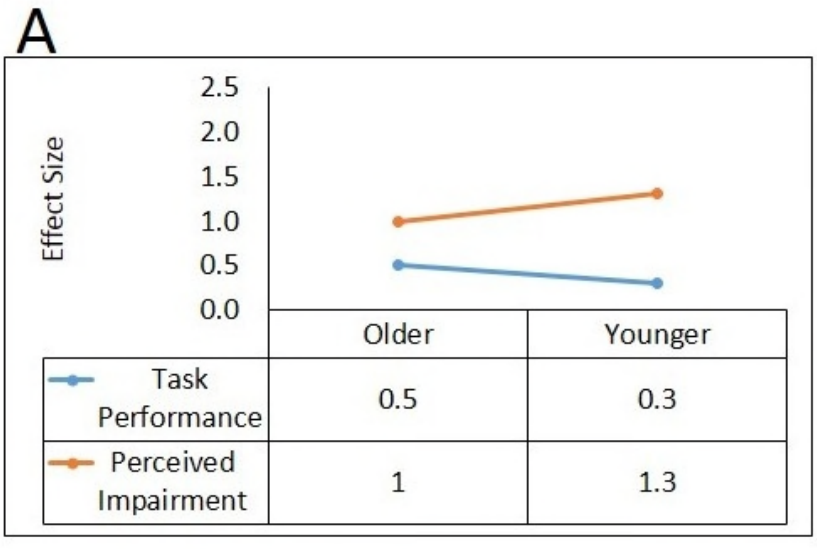
Scenario IV is based on and presents fabricated data inspired by the following study:

Gilbertson, R., Ceballos, N. A., Prather, R., & Nixon, S. J. (2009). Effects of acute alcohol consumption in older and younger adults: Perceived impairment versus psychomotor performance. *Journal of Alcohol and Drugs*, *70,* 242–252.

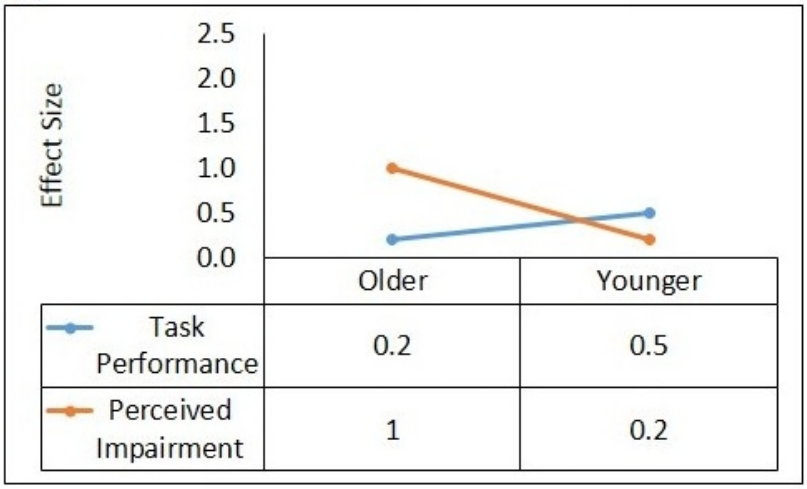
Acute Alcohol Administration

Gilbertson, Ceballos, Prather, and Nixon conducted a double-blind, placebo-controlled study of perceived impairment and psychomotor performance after acute alcohol administration in two groups of participants: older adults (ages 50–75) and younger adults (ages 25–35). In both groups, approximately 50% of participants were male. Alcohol administration procedures achieved peak levels of breath alcohol concentration that were consistent with normal social drinking. Participants completed simple pencil-and-paper behavioral tests, as well as questionnaires about self-reported perceived intoxication and impairment. In Figure 2.3, effect sizes for task performance and perceived impairment (difference between alcohol and placebo) on the ascending (Fig. 2.3a) and descending (Fig. 2.3b) limbs of the alcohol curve are shown. On the ascending limb, although older adults receiving alcohol (versus younger adults receiving alcohol) were more impaired on the psychomotor task, the older adults reported less perceived impairment compared to the younger adults.

Figure 2.3 Task Performance and Perceived Impairment in Older and Younger Participants
Data are shown as effect sizes (difference between alcohol and placebo): (a) ascending limb and (b) descending limb.



B



	Older	Younger
Task Performance	0.2	0.5
Perceived Impairment	1	0.2

21. (Scenario IV) In the previously described study, age group (younger vs. older) represents which type of variable?
    A) dependent
    B) confounding
    C) operational
    D) independent

22. (Scenario IV) In the previously described study, perceived impairment represents which type of variable?
    A) dependent
    B) confounding
    C) operational
    D) independent

23. (Scenario IV) In the previously described study, task performance represents which type of variable?
    A) dependent
    B) confounding
    C) operational
    D) independent

24. (Scenario IV) What additional information not previously shown would help you to interpret the results of this study?
    A) age range of participants
    B) brand of alcohol consumed
    C) gender of participants
    D) participants' typical drinking pattern

25. (Scenario IV) Based on the previously given information, which conclusion about the ascending limb of the alcohol curve could reasonably be supported by the results of the study?
    A) Elderly people should not consume alcohol.
    B) Compared to their younger counterparts, elderly people may be more responsible drinkers.
    C) Alcohol affects the performance of younger drinkers; however, they may be less likely (versus older drinkers) to feel impaired.
    D) Alcohol affects the performance of older drinkers; however, they may be less likely (versus younger drinkers) to feel impaired.

Use the following to answer questions 26-29:

Scenario V

Scenario V is based on and presents fabricated data inspired by the following study:

Natvik, E., Gjengedal, E., & Raheim, M. (2013). Totally changed, yet still the same: Patients' lived experiences 5 years beyond bariatric surgery. *Qualitative Health Research, 23,* 1202–1214. doi:10.1177/1049732313501888

Natvik, Gjengedal, and Raheim were interested in learning more about bariatric surgery patients and their needs in the years after surgery. To this end, the researchers conducted individual patient interviews and analyzed their data using a phenomenological lifeworld approach. Participants were eight Norwegian patients, interviewed at least 5 years after bariatric surgery (range = 5 to 7 years). Individual interviews took place at the location of the patient's choice and were recorded with the participant's consent. All interviews were conducted by the same researcher using an interview guide that covered four themes: perceived health, each participant's own body, health-related habits and practices, and participation in society. Field notes were recorded, and each interview was transcribed within 24 hours. Through phenomenological analysis, two core dimensions emerged. These are described in Table 2.3.

Table 2.3 Core Dimensions and Examples

	Examples
Core dimension 1: "The altered body and bodily functions—between emancipation and control"	Patients described feelings of emancipation, joy, and gratitude. They also expressed increased self-acceptance, confidence, and self-esteem. However, fear of weight gain was present, particularly as the physical restriction of digestive tract decreased over time.
Core dimension 2: "A body among other bodies—rediscovering oneself"	Interacting with others postsurgery was characterized by the patients as a process of rediscovering themselves. Although understanding, self-acceptance, and rising self-esteem were expressed, the patients also indicated some feelings of shame, self-contempt, and resignation.

26. (Scenario V) Which term BEST describes this study?
    A) longitudinal
    B) cross-sectional
    C) field experiment
    D) sequential

27. (Scenario V) Which term BEST describes this study?
    A) descriptive
    B) experimental
    C) narrative
    D) quantitative

28. (Scenario V) Which issue limits the external validity of this research?
    A) lack of experimental manipulation
    B) lack of a no-surgery control group
    C) participants were all Norwegian
    D) use of a sham surgery group

29. (Scenario V) What additional information not previously shown would enhance your understanding of the results of this study?
    A) participant weight pre- and postsurgery
    B) age of the surgical team
    C) gender of the surgical team
    D) education level of the interviewers who collected the data

Answer Key

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

1. Emily Rosa's study of Therapeutic Touch is both interesting and inspiring. What lessons can we learn about research from what Emily did in her own research?

2. A study of lying by college students and high school students to their parents was described in some depth in the text. What additional questions might one want to ask in subsequent research that were not answered by the research as described? With specific reference to lying about sex, what specific questions about being dishonest about this issue would make for good questions to investigate in future research?

3. Describe the advantages and disadvantages of the major databases used in psychology. Why would someone have a preference of one over the other?

4. Imagine that you were interested in investigating the degree to which people who commit suicide give prior warnings of some kind before committing the act. Assume you are interested in people of all ages. How would you go about conducting your research? What databases would you use? What parameters would you use and how would you use them?

5. Describe the major components of a research paper written in American Psychological Association (APA) format. Briefly describe the major elements we would find in each of these components.

6. What is a meta-analysis? How is the term *effect size* involved in a meta-analysis? Give an example of a topic for which a meta-analysis might be an appropriate research tool.

7. Distinguish inductive and deductive hypothesis development and give an example of each.

8. Distinguish quantitative and qualitative research. What are the advantages and disadvantages of each? Give a specific example of each approach to research.

9. A vice president for Academic Affairs wants to see classes designed for maximum impact and success by and for students. Give a list of at least five potential independent variables that could be manipulated in an experiment (assume that you have a fair amount of control of classes, format, who takes classes, etc.). Now, list five potential dependent variables that would indicate success (defined broadly, in other words, not limited to a particular class).

10. Define internal and external validity and provide an example of each.

11. Define and distinguish the following: cross-sectional research, longitudinal research, and sequential design research. Give an example of each.

12. What are five key characteristics of a good theory? Define and give an example of each one.

Answer Key

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.

1. What is one of the proposed functions of the technique called Therapeutic Touch?
   A) to aid relaxation
   B) to retrieve memories of traumatic events
   C) to block the flow of neurotransmitters in the body
   D) to identify the presence of cancer cells in the body

2. What do practitioners of Therapeutic Touch claim they can detect in the human body using their approach?
   A) presence of psychological conflicts that impede recovery
   B) areas of the body that have nerve damage
   C) the balance among functions of the id, ego, and superego
   D) an energy field surrounding the person's body

3. Suppose that a newspaper story about research conducted by Emily Rosa was recently published. What is likely to be the MOST newsworthy and unusual aspect of this story?
   A) Emily was only 9 years old when she did the research.
   B) She discovered a cure for a disease from which she actually suffered.
   C) Emily discovered the gene that causes schizophrenia.
   D) She was blind, yet her research was on the topic of eyesight.

4. What is clinical psychologist Susan Nolen-Hoeksema's proposed etiology for the development of depression?
   A) Patients tend to engage in a great deal of rumination.
   B) Most patients spend too many hours sleeping, thus reducing access to positive reinforcers.
   C) Patients tend to make a series of errors in basic logic that lead them to depression.
   D) Most patients consume a diet that reduces levels of key neurotransmitters that have been implicated in the development of depression.

5. According to psychologist Susan Nolen-Hoeksema which individual is at greatest risk for developing depression?
   A) Agnes, who spends a great deal of time dwelling on negative events
   B) Al, who has been under a lot of stress at work lately
   C) Abigail, who has been having difficulty sleeping lately
   D) Andy, who has an overactive parasympathetic nervous system

6. The press has identified a politician who was alleged to have engaged in some sleazy activity. The politician intends to deny any involvement. What advice would Daniel Wegner, a social psychologist described in your textbook, have for this politician?
   A) Most people will judge a person's sincerity based on nonverbal cues.
   B) People will tend to remember the accusation rather than forget it.
   C) Memory is fallible, so the politician can say almost anything.
   D) Most people will not pay attention to the message, so it would be best to say nothing at all.

7. According to social psychologist Daniel Wegner, what typically happens when we are asked to suppress an idea or an image?
   A) Most people will forget the idea or image permanently.
   B) Elements of the image or idea will persist, but most of it will be forgotten.
   C) Most people will be unable to suppress the idea or image.
   D) Elements of the image or idea will be suppressed during the day but will appear in dreams.

8. Why is Kitty Genovese of New York City so well known in the history of psychology?
   A) She developed a theory of how people interact with their environment.
   B) She was murdered while a number of her neighbors failed to intervene.
   C) She was rescued by a good Samaritan as she was drowning in a pond in Central Park.
   D) She is a social psychologist who studied the effects of crowding on human behavior.

9. What was the general consensus of social commentators who sought to explain the Kitty Genovese case?
   A) Apathy was responsible.
   B) Not knowing one's neighbor's was the key factor.
   C) Lack of knowledge of how to intervene was responsible.
   D) Fear for one's own safety was responsible for the ultimate outcome.

10. When social psychologists Darley and Latané analyzed the Kitty Genovese case what did they conclude was the key factor that needed to be the focus of attention in understanding the reasons for what happened?
    A) apathy and indifference
    B) the victim's prior arrest record
    C) previous incidents that had led to the death of those that intervened
    D) the number of bystanders who were present at an emergency situation

11. Which of these would make a good title for a newspaper article describing and summarizing results of research on lying to parents by high school and college students?
    A) Rates of Lying Surprisingly Low
    B) "Lying to Parents" Quite Common
    C) The Older They Are, the More They Lie
    D) Students Lie When Needed: Topics Make a Difference

12. Your textbook describes a study on the issue of lying about sex by high school and college students. Which of these would be a really good question to pose for future research on this issue?
    A) How much do students discuss sex with their parents?
    B) What is the knowledge difference between the different groups of students concerning sex?
    C) How are the topics of sex and the other issues related to one another?
    D) What is the nature of the lies that students tell about sex?

13. What is one reason that there is such an emphasis today on "evidence-based treatments"?
    A) The general public has become more demanding and insists on evidence.
    B) Insurance companies expect treatments to be supported before they will pay.
    C) Changing perspectives in psychology have moved away from more subjective approaches such as psychoanalytic therapy.
    D) The new federal health law mandates that evidence must be presented for each treatment that is offered.

14. Which scenario is the BEST example of serendipity in action?
    A) Based on her understanding that serotonin is related to depression, a psychiatrist decides to prescribe a new drug that works on serotonin for a depressed patient.
    B) While typing a paper, Al finds a quick way to format papers to meet the requirements set by the teacher.
    C) A psychologist studies the literature carefully to arrive at a hypothesis on what treatments might effectively work for insomnia.
    D) A young man searches the Internet to find ways to clean the carpet in his apartment and comes across a suggestion that will get the carpet clean and save him his deposit.

15. Your textbook describes a study conducted by Emily Rosa. When she and her colleagues searched databases for evidence on Therapeutic Touch, what did they find?
    A) The treatment was surprisingly effective compared to alternative treatments.
    B) There were virtually no studies on the topic of any kind.
    C) The treatment was successful, provided the practitioner had been properly trained.
    D) None of the studies tried to detect whether practitioners could detect energy fields.

16. Which of these is the BEST description of PsycINFO and PsycARTICLES?
    A) reviews of published articles
    B) online databases of psychology-related articles
    C) source of the raw data from published research
    D) descriptions of hypotheses and theories relevant to published articles

17. A psychologist wants to investigate cheating rates among college students over time, so she decides to use a database to retrieve relevant articles. While doing the search, she uses words such as "cheating," the names of authors she knows have published in the field, and terms such as "college students." What term do we use to describe what she is using?
    A) hypothesizing
    B) variable fishing
    C) parameters
    D) descriptors

18. What is one major advantage of PsycARTICLES compared to other databases?
    A) It provides information on the largest number of journals of all psychology-related databases.
    B) It makes full-text versions of articles available.
    C) Iit focuses on research-based articles exclusively.
    D) It reformats the information regardless of journal, so the information is easy to compare.

19. Which of these is the LEAST useful database to be used in accessing research-based information on the topic of psychotherapy?
    A) PsychARTICLES
    B) PsycINFO
    C) MEDLINE
    D) Google

20. What is the major disadvantage of using Google for doing a scientific literature search?
    A) Google does not tap into scientific journals.
    B) It does not provide useful parameters that can efficiently limit searches.
    C) Google yields a significant number of irrelevant results.
    D) It requires an interface that most people cannot access easily.

21. For a research methods class, a student must select a database to search. She decides to ask previous students for advice. Which of these is a good reason for making a selection?
    A) Advanced Scholar Search has a wider database and excellent search tools.
    B) PsycINFO has wider journal coverage and good built-in parameters.
    C) PsycARTICLES has full-text articles and extensive journal coverage.
    D) Due to the competitive nature of the market, all three have become virtually identical.

22. When learning how to search databases, it is imperative to learn how to use Boolean operators. Which of these are Boolean operators?
    A) AND, NOT, OR
    B) +, -, *
    C) ( ), [ ], { }
    D) *, **, ***]

23. A professor is searching a database because he is interested in cheating. If he enters *cheat** into the database, what will the database do with this command?
    A) It will report back results only if the word *cheat* is in the article.
    B) It will report back articles with *cheat* as well as *cheaters* and *cheating*.
    C) It will limit the search to recently published articles.
    D) It will narrow the search to a specific population that must be specified.

24. Juan is using the university's online library system to search for articles for his assigned research proposal. He has found an article that he believes will be useful. What is the first thing he should do in an attempt to retrieve the article?
    A) Use an interlibrary loan to request a copy of the article.
    B) Contact the first author of the published article to request a copy of the article.
    C) Download a free copy by clicking on the “PDF” icon adjacent to the article's title or abstract.
    D) Go to the library in person to make a copy of the article.

25. If an online copy of a recent published article is not available from the university library database, what should you do next to try to obtain a copy of the article?
    A) Use an interlibrary loan to request a copy of the article.
    B) Contact the first author of the published article to request a copy of the article.
    C) Contact the publisher directly to request a copy of the article.
    D) Go to the library in person to make a copy of the article.

26. You have found that your university library does not have a physical or online copy of an article you would like to use for your class research proposal. Which of these actions is NOT an option for obtaining a copy of the article?
    A) Use an interlibrary loan to request a copy of the article.
    B) Contact the first author of the published article to request a copy of the article.
    C) Contact the publisher directly to request a copy of the article.
    D) Locate the article online using a Google search.

27. Which of these lists include the first four parts of an APA research article in correct order?
    A) Introduction, Results, Method, Discussion
    B) Introduction, Abstract, Method, Results
    C) Abstract, Introduction, Method, Results
    D) Introduction, Method, Results, Abstract

28. A student is learning how to write a research paper in APA format. Which of these points might she find especially useful to know because it may not be obvious?
    A) The abstract is a summary at the end of the paper.
    B) The introduction does not have an actual official heading.
    C) The references include all sources that were consulted.
    D) The methods section is contained in an appendix at the end of the paper.

29. What is the typical length of an abstract in the format prescribed by the American Psychological Association?
    A) two sentences
    B) a paragraph
    C) two paragraphs
    D) as long as is necessary, depending on the complexity of the report

30. After wading through a rather difficult research article, Sid decides that one section was a “real bear” because of its technical nature. Which section proved to be difficult for Sid?
    A) the Introduction
    B) the Method
    C) the Results
    D) the Discussion

31. A researcher decides to review the literature on violence at sporting events in Europe and the United States. The article does not contain original research; instead, it is a review and integration of major themes and conclusions in the literature. Which term is the BEST description of this researcher's efforts?
    A) generalization
    B) qualitative
    C) quantitative
    D) discussion

32. Which of these is a common distinction made in describing research reviews?
    A) controlled and descriptive
    B) descriptive and experimental
    C) qualitative and quantitative
    D) thematic and predictive

33. A psychologist wants to write a review of previously conducted research on the effectiveness of various treatments for alleviating phobias. Which of these would be the BEST choice if she wishes to provide a statistical analysis of these previously conducted studies?
    A) correlation
    B) qualitative review
    C) database review
    D) meta-analysis

34. A psychologist wants to write a review of previously conducted research on the effectiveness of various treatments for alleviating phobias. She will treat each of the studies as a unit of analysis and report a statistic when she is finished. What statistic will she report?
    A) a correlation coefficient
    B) a reliability coefficient
    C) an effect size
    D) a level of significance from a table

35. Psychologists who reported the results of an analysis of a meta-analysis of training to detect lying accurately would be likely to find which title to be MOST useful in conveying their ideas?
    A) Liars Never Prosper: Their Deception Will Be Noted
    B) Training to Detect Lying: Better to Flip a Coin
    C) Detecting Lies: Depends on the Gender of the Detector
    D) Training to Detect Lies: The Yield is Small

36. You have just finished reading an article that identified important manuscripts on your topic and discusses the findings in a nonstatistical manner. The major themes and conclusions from research on the topic are discussed. What type of article did you read?
    A) qualitative review
    B) quantitative review
    C) meta-analysis
    D) annual review

37. A(n) _____ is a tentative proposition about the causes or outcomes of an event or, more generally, about how variables are related.
    A) statement
    B) hypothesis
    C) effect
    D) variable

38. This can be stated in an if–then form as a prediction about the relation between two or more variables.
    A) statement
    B) hypothesis
    C) effect
    D) variable

39. Dr. Jones is studying the influence of playing violent video games on childhood aggression and believes that children who play more violent video games will display increased aggression in comparison to those who do not play violent video games. What is Dr. Jones's hypothesis?
    A) Playing violent video games leads to aggression among children.
    B) Children who are aggressive prefer violent video games.
    C) Children who are aggressive are permitted to play violent video games.
    D) The video game industry does not care about children.

40. A _____ is a set of formal statements that specifies how and why variables or events are related.
    A) theory
    B) hypothesis
    C) reason
    D) variable

41. Using specific facts to yield a general principle is a good description of
    A) falsifiability.
    B) empiricism.
    C) inductive reasoning.
    D) deductive reasoning.

42. Serotonin is known to be a neurotransmitter involved in depression. A new disorder with similarities to depression that also tends to occur with depression has been discovered. If a psychologist suggests that serotonin is likely to be involved in this new disorder, what technique is being used?
    A) falsifiability
    B) nativism
    C) inductive reasoning
    D) deductive reasoning

43. The theory that men and women have different predispositions regarding mating tendencies as a result of evolution was developed using which process?
    A) hypothesis prediction
    B) operational definitions
    C) inductive reasoning
    D) deductive reasoning

44. When Buss and Schmitt (1993) tested their sexual-strategies theory by asking men and women how many sexual partners they would like at different ages, what did they find?
    A) There was no difference across age, thus providing no support for the theory.
    B) There was a large difference between men and women, which supported the theory.
    C) The differences changed as a result of age, thus providing partial support for the theory.
    D) Although there were some differences, they were inconsistent and not statistically significant.

45. Which characteristic does NOT apply to a good hypothesis?
    A) testable
    B) falsifiable
    C) based on sound reasoning
    D) unsupported by the data

46. Dr. Jensen would like to conduct a study but has found no relevant theory and little prior information on his topic. What type of research is he conducting?
    A) exploratory research
    B) deductive research
    C) theoretical research
    D) experimental research

47. Which of these terms BEST describes the Jensen and colleagues (2004) study that focused on lying among high school and college students to their parents?
    A) case study
    B) exploratory
    C) correlation
    D) quantitative

48. As part of an effort to study whether suicide victims give warnings of their impending attempt to kill themselves, two researchers obtained and studied the themes present in a number of suicide notes left by people who completed suicide. What type of research is illustrated here?
    A) case study
    B) meta-analysis
    C) content analysis
    D) quantitative analysis

49. Research that uses numerical data and thematic description is called:
    A) qualitative.
    B) quantitative.
    C) mixed-methods.
    D) meta-analytic.

50. An analysis that identifies the different themes in a set of interview data is called:
    A) content analysis.
    B) quantitative analysis.
    C) mixed-methods analysis.
    D) meta-analytic analysis.

51. Within the context of the experimental method, the dependent variable is to the independent variable as _____ is to _____.
    A) manipulated; measured
    B) measured; manipulated
    C) control; experimental
    D) experimental; control

52. Identify the independent variable (IV) and the dependent variable (DV) in Emily Rosa's study of Therapeutic Touch.
    A) the IV was placement of her hand, the DV was participant's verbal report of where her hand was located
    B) the IV was the participant's verbal report of where her hand was located, the DV was the placement of her hand
    C) the IV was the amount of energy generated by a machine, the DV was the verbal report of the level of energy perceived or detected
    D) the DV was the amount of energy generated by a machine, the IV was the verbal report of the level of energy perceived or detected

53. A psychologist decides to use humor in a statistics class. He teaches a second statistics class in exactly the same way except there is no humor. At the end of the semester, the psychologist finds that the students in the class taught with humor had lower anxiety levels when taking exams and they also scored a full letter grade higher. Identify the independent variable (IV) and dependent variable (DV).
    A) the two classes are the IVs, the DV is humor and grades received
    B) the DVs are anxiety levels and grades, the IV is presence/absence of humor
    C) the IV is humor and the DV is anxiety levels
    D) the DV is grades, the IV is the presence or absence of humor

54. A researcher is investigating the effects of exercise on weight. Identify the independent and dependent variables in this research.
    A) the dependent variable is weight, the independent variable is exercise
    B) the independent variable is calories consumed, the dependent variable is diet
    C) the independent variable is weight, the dependent variable is calories consumed
    D) the dependent variable is amount of exercise, the independent variable is calories consumed

55. A company that manufactures drugs used to treat heart disease wants to determine if a new drug and exercise can affect cholesterol levels. What are the independent variable (IV) and the dependent variable (DV) in this proposed study?
    A) the DV is exercise, the IVs are the drug and cholesterol levels
    B) the DV is cholesterol levels, the IVs are the drug and exercise
    C) the IVs are the drug and cholesterol levels, the DV is the amount of exercise
    D) the DV is the number of heart attacks, the IVs are the drug and cholesterol levels

56. You are asked to take part in an experiment investigating the effects of alcohol on aggression. What is the dependent variable in this study?
    A) blood alcohol levels
    B) number of research participants
    C) level of aggression
    D) type of alcohol consumed

57. Among the possible causes of aggression are genetic factors, family environment, and neurochemical factors. What label would be used for aggression in a study that involves these three factors?
    A) hypothesis
    B) dependent variable
    C) controlled variable
    D) independent variable

58. A researcher is interested in studying the effects of caffeine (zero and high) and the new sleeping medication (Knockmeout) in either 50-, 100-, 150-, or 200-mg tablets on sleep length. What are the independent variables (IVs) and the dependent variables (DVs) in this study?
    A) the IVs are caffeine and sleeping medication, the DV is sleep length
    B) the IV is sleep length, the DVs are caffeine and medication
    C) the IV is caffeine, the DVs are sleep length and medication
    D) the DVs are sleep length and caffeine, the IV is medication

59. A real estate company is interested in research on what makes homes sell. They are interested in the effects of square footage, color of paint (white vs. beige), and distance from downtown. They decide to assess the number of people who visit during open houses for various homes as well as the final selling price for the homes. How many independent variables (IVs) and dependent variables (DVs) are there in this proposed study?
    A) one DV and three IVs
    B) two DVs and three IVs
    C) three DVs and two IVs
    D) two IVs and one DV

60. In the Darley and Latané (1968) study of bystander intervention, the independent variable was _____ and the dependent variable was _____.
    A) perception of the number of bystanders; perception of the seriousness of the emergency
    B) seriousness of a perceived emergency; helping
    C) helping; perception of the number of bystanders
    D) perception of the number of bystanders; helping

61. Dr. Jones is conducting a study comparing the effect of room lighting on test performance. He randomly assigns 50 participants to a room that is dimly lit and another 50 participants to a room that is brightly lit. He then gives both groups of participants the same test. He is conducting a(n):
    A) between subjects design.
    B) within subjects design.
    C) exploratory design.
    D) correlational design.

62. A procedure in which each participant has an equal probability of being assigned to any one of the conditions in the experiment is called:
    A) counterbalancing.
    B) random assignment.
    C) descriptive research.
    D) exploratory research.

63. Dr. Schmidt is testing the effectiveness of a new medication on anxiety. He has 100 participants complete a pretest on anxiety, take the new medication for six weeks, and then complete a posttest on anxiety. He is conducting a(n):
    A) between subjects design.
    B) within subjects design.
    C) exploratory design.
    D) correlational design.

64. An extraneous factor that systematically varies along with the variables we are studying and therefore provides a potential alternative explanation for our results is called a(n) _____ variable.
    A) independent
    B) dependent
    C) confounding
    D) counterbalanced

65. A procedure in which the order of conditions in an experiment is varied so that no condition has an overall advantage relative to the other conditions is referred to as:
    A) counterbalancing.
    B) random assignment.
    C) confounding.
    D) exploratory research.

66. This type of research is also called a nonexperimental research.
    A) descriptive
    B) correlational
    C) experimental
    D) exploratory

67. Researchers conducting this type of study measure variables but do not manipulate them.
    A) descriptive
    B) correlational
    C) experimental
    D) exploratory

68. Dr. Stephens is examining the amount of sexual content in popular song lyrics. What type of research is she conducting?
    A) descriptive
    B) correlational
    C) experimental
    D) exploratory

69. A factor that is not the focus of interest in a particular study, but that could influence the outcome of the study if left uncontrolled is called a(n) _____ variable.
    A) independent
    B) dependent
    C) confounding
    D) extraneous

70. Dr. Jones is conducting a study comparing the effect of room lighting on test performance. He randomly assigns 50 female participants to a room that is dimly lit and another 50 female participants to a room that is brightly lit. He then gives both groups of participants the same test. Participant gender is a(n) _____ variable in this study.
    A) independent
    B) dependent
    C) confounding
    D) extraneous

71. A field study is:
    A) where researchers measure variables but do not manipulate them.
    B) where the researcher manipulates one or more variables, attempts to control extraneous factors, and then measures how the manipulated variable affect participants' responses.
    C) research conducted in a field setting.
    D) a study in which researchers manipulate an independent variable in a natural setting and exercise some control over extraneous factors.

72. What is a field experiment?
    A) research where researchers measure variables but do not manipulate them
    B) research where the researcher manipulates one or more variables, attempts to control extraneous factors, and then measures how the manipulated variable affect participants' responses
    C) research conducted in a field setting
    D) a study in which researchers manipulate an independent variable in a natural setting and exercise some control over extraneous factors

73. Dr. Abe is examining the driving performance among 16-, 26-, 36-, 46-, and 56-year-old drivers. He will then follow participants for 10 years. What type of research design is he conducting?
    A) cross-sectional
    B) longitudinal
    C) cohort sequential
    D) experimental

74. In this research design, several age cohorts are tested longitudinally.
    A) cross-sectional
    B) longitudinal
    C) cohort sequential
    D) experimental

75. Researchers have designed a study to determine if a new drug will be effective in reducing symptoms of depression. For example, the people who administer the drug will not know if they are administering the actual pill or a placebo. Those making observations of the patients will not know which ones received the actual drug and which ones received a placebo. This is a study that was designed to have a high level of:
    A) external validity.
    B) internal validity.
    C) reliability.
    D) replication.

76. Which terms tend to be closely related?
    A) external validity and generalization
    B) internal validity and independent variable
    C) field study and replication
    D) confounding variable and external validity

77. A researcher wants to design research that has the advantages of experimental control with the benefit of collecting data in a real-world situation. What is this researcher's BEST choice?
    A) a correlational design
    B) a lab experiment with high internal validity
    C) a field experiment
    D) a survey

78. Researchers have designed a study to assess comfort with technology in three age groups: 15-, 30-, and 60-year-olds. What type of research design is this researcher using?
    A) correlational
    B) experimental
    C) longitudinal
    D) cross-sectional

79. Researchers have designed a study to assess comfort with technology in three age groups: 15-, 30-, and 60-year-olds. The 15-year-old individuals grew up in a world that was quite different than the world in which the other groups, especially the 60-year-olds, grew up in. Any differences found on comfort may be due to what researchers call:
    A) internal validity.
    B) external validity.
    C) cohort effect.
    D) poor reliability.

80. In this type of research, people of different ages are compared at the same time, allowing researchers to draw a "snapshot" type of conclusion.
    A) longitudinal
    B) cross-sectional
    C) quantitative
    D) qualitative

81. In this type of research, people are tested repeatedly over a period of time.
    A) longitudinal
    B) cross-sectional
    C) quantitative
    D) qualitative

82. Alan is deciding on a design for his dissertation, which must be completed by all PhD students. Which of these would be a really bad choice if Alan is concerned about finishing his research as soon as possible?
    A) field experiment
    B) lab experiment
    C) cross-sectional design
    D) longitudinal design

83. A(n) _____ variable is an extraneous factor that systematically varies along with the variables that are being studied, thus providing a potential alternative explanation for results.
    A) confounding
    B) dependent
    C) independent
    D) repeated

84. In the study of lying to parents about a variety of issues, it turns out that the high school students were from the West Coast and the college students were from the Midwest. The potential influence of this fact on the results is BEST summarized by which term?
    A) confounding variable
    B) dependent variable
    C) field experiment
    D) internal validity

85. The specific procedures used to measure or manipulate a variable in a particular study are called the:
    A) operational definition.
    B) procedural definition.
    C) indices.
    D) questionnaires.

86. Research _____ is a standardized set of procedures that the researcher will follow with each participant.
    A) proposal
    B) protocol
    C) agenda
    D) investigation

87. After a discussion of population in a research methods class, a student comes away with a new understanding. She realizes something new about the term that she had not known before the term was clearly defined. What is she likely to realize about populations at this point?
    A) A population is by definition a large group of subjects or nonhuman creatures.
    B) A population may actually be rather small in size.
    C) Populations are groups recognized by the U.S. Census Bureau.
    D) Populations and samples are virtually identical in definition and application in research.

88. Which of these is a good analogy of the relation between a population and a sample?
    A) A medical technician draws blood in order to determine the number of white blood cells in a person's body.
    B) A class is assigned seats based on the first letter of their last name.
    C) More than 10,000 people respond to an online survey in order to earn a chance at winning a lottery.
    D) People at a local mental health center tend to receive one of several diagnoses: depression, personality disorder, or anxiety disorder.

89. _____ analysis is mathematical and typically involves using statistics to aid in summarizing and interpreting data.
    A) Qualitative
    B) Quantitative
    C) Numerical
    D) Systematic

90. _____ analysis is nonmathematical and often involves identifying, classifying, and describing different types of characteristics, outcomes, or behaviors.
    A) Qualitative
    B) Quantitative
    C) Numerical
    D) Systematic

91. Dr. Chris has conducted a study on attitudes regarding divorce among adults whose parents also divorced. He is comparing their mean scores on the scale regarding attitudes of divorce and determining if they are significantly different or not. What kind of analysis is he conducting?
    A) qualitative
    B) quantitative
    C) numerical
    D) systematic

92. Dr. Carpentier has conducted 30 different interviews with female college students between the ages of 18 and 25 regarding their perception of women's portrayal in popular music videos. What kind of analysis will she use when examining her data?
    A) qualitative
    B) quantitative
    C) numerical
    D) systematic

93. Descriptive statistics are to inferential statistics as _____ is to _____.
    A) summarize; analyze
    B) analyze; summarize
    C) central tendency; variability
    D) variability; central tendency

94. Consider the following distribution of scores: 100, 100, 100, 85, 115, 95, 105. What is the mode in this distribution?
    A) 30
    B) 100
    C) 95
    D) 115

95. Consider the following distribution of scores: 100, 100, 100, 85, 115, 95, 105. What is the median in this distribution?
    A) 30
    B) 100
    C) 95
    D) 115

96. Consider the following distribution of scores: 100, 100, 100, 85, 115, 95, 105. What is the range in this distribution?
    A) 30
    B) 100
    C) 95
    D) 115

97. A college class has 20 students, all of whom are within normal range for weight (neither thin nor overweight). On the second day of class, a 375-pound defensive lineman from the football team joins the class. Which statistic is likely to be affected the MOST if we describe the weights of the current class of students now?
    A) mode
    B) median
    C) range
    D) mode and mean equally

98. You are taking a history class in which the instructor has assigned five equally weighed exams. In other words, your grade will be determined by adding your five scores and dividing by five. What measure is being used to determine your grade in this class?
    A) mode
    B) median
    C) range
    D) mean

99. Consider the following distribution of scores: 1, 2, 4, 5. Now, imagine that one more score is added to this distribution: a score of 28. Which descriptive statistic would be MOST affected by adding this score to the distribution?
    A) mode
    B) median
    C) range
    D) mean

100. Which descriptive statistic is the midpoint of a distribution?
    A) mode
    B) median
    C) range
    D) mean

101. What is one disadvantage or potential problem with the descriptive statistic called the mean?
    A) The mean is difficult to calculate.
    B) It is difficult for people to understand.
    C) The mean has limited use in statistics.
    D) It can be greatly affected by extreme scores.

102. What did subsequent researchers find when they reanalyzed data from the Buss and Schmitt (1994) study designed to test their theory of evolutionary influences on preferred number of mates?
    A) The data were even more supportive of the theory than had previously been thought.
    B) The original report contained a mathematical error that rendered the findings erroneous.
    C) The data were not nearly as supportive once the influence of outliers were considered.
    D) The reanalyzed results were actually counter to the theory in that women preferred more sexual partners than the men did.

103. What statistic did subsequent researchers rely on heavily when they reanalyzed data from the Buss and Schmitt (1994) study designed to test their theory of evolutionary influences on preferred number of mates?
    A) mean number of preferred sexual partners
    B) median number of preferred sexual partners
    C) correlation of age and number of sexual partners
    D) correlation of age and actual number of sexual partners

104. Which statistic is MOST accurately described as a "crude measure"?
    A) standard deviation
    B) median
    C) mean
    D) range

105. Which distribution would have the highest standard deviation? (This question requires no calculation to answer.)
    A) 0, 1, 2, 3, 4
    B) 10, 11, 12, 13, 14
    C) 15, 16, 17, 18, 19
    D) 20, 24, 26, 28, 30

106. Which distribution has the largest range?
    A) 0, 1, 2, 3, 4, 5
    B) 10, 11, 12, 13, 14, 24
    C) 15, 16, 17, 18, 19, 20
    D) 20, 24, 26, 28, 30, 32

107. What are the two major categories of descriptive statistics?
    A) central tendency and dispersion
    B) inferential and non-inferential
    C) correlation and central tendency
    D) mean and median

108. What is one of the MOST significant problems with the range as a measure of dispersion?
    A) difficult to calculate
    B) hard to comprehend
    C) relies on only two scores
    D) duplicates other measures of dispersion

109. Which statistics are especially useful measures of dispersion?
    A) mean and median
    B) range and central tendency
    C) variance and standard deviation
    D) standard deviation and range

110. What is the single MOST commonly reported measure of dispersion?
    A) median
    B) range
    C) variance
    D) standard deviation

111. What is one of the major advantages of the standard deviation and variance as measures of dispersion?
    A) easy to calculate
    B) form the basis of important statistical tests
    C) require no background in math to comprehend
    D) will always be presented in whole numbers

112. Consider the following distribution: 50, 50, 55, 60, 50. Now, imagine that we add 10 points to each score. What happens to various descriptive statistics?
    A) The mean and standard deviation will increase by 10 each.
    B) The mean will increase by 10 and the standard deviation will remain the same.
    C) The mean, mode, median, and range will all increase by 10.
    D) The standard deviation will increase by 10 and the mean will remain unchanged.

113. What is the MOST frequently used level of statistical significance in psychology?
    A) 1%
    B) 5%
    C) 10%
    D) 95%

114. A researcher completed a study comparing the effects of short, multiple quizzes versus fewer but longer exams on final grades in several classes. She is now ready to draw conclusions and thus will rely on _____ to draw the conclusions?
    A) descriptive statistics
    B) inferential statistics
    C) measures of dispersion
    D) measures of correlation

115. The text describes a study in which some people consume alcohol and others do not. They are evaluated in a visual search task that requires them to identify whether a target symbol appeared on the screen. Identify the independent variables (IVs) and dependent variables (DVs) in this hypothetical study.
    A) the IV is alcohol/no alcohol, the DV is accuracy of identifying the target symbol
    B) the DV is alcohol/no alcohol, the IV is identifying the target symbol
    C) the DV is the amount of alcohol given to the participants, the IV is the level of intoxication
    D) the IV is the level of intoxication, the DV is how intoxicated the participants report that they feel during the experiment

116. A student has just run her inferential statistics and found that the results were statistically significant at the 5% level. When she rushes excitedly to her professor with the news, what is the professor likely to say?
    A) "There is more than a 5% chance that the results have practical significance."
    B) "There is a 5% chance that the results were due to chance factors."
    C) "Congratulations, the results indicate that the dependent variable influenced the independent variable."
    D) "Fantastic, you have found that the independent variable and the dependent variable are correlated beyond a chance level."

117. What is the BEST analysis of the meaning of statistically significant at the 5% level?
    A) The results are very likely to be replicated by other researchers.
    B) The findings are of importance to the field because the hypothesis was supported.
    C) It is possible, but unlikely, that the results were due to chance factors.
    D) There is a 95% chance that the results are incorrect.

118. What are the general descriptions of the two types of errors that can and are made when researchers analyze the results of their experiments?
    A) "false alarms" and "missed opportunities"
    B) Type A and Type B
    C) positive errors and negative conclusions
    D) overstatement and understatement

119. Researchers have identified a new drug that they believe will have a great impact on juvenile diabetes. A large, well-known children's hospital is the first to test the drug. Unfortunately, the drug proves not to have the anticipated effect. Assume, however, that in reality the drug actually does reduce the effects of diabetes. What type of error has been made here?
    A) false alarms
    B) Type A
    C) missed opportunity
    D) practically significant

120. Researchers have identified a new drug that they believe will have a great impact on juvenile diabetes. A large, well-known children's hospital is the first to test the drug. They find that the drug actually does reduce the symptoms associated with diabetes. Assume, however, that in reality the drug does NOT actually reduce the effects of diabetes. What type of error has been made here?
    A) false alarm
    B) Type A
    C) missed opportunity
    D) practically significant

121. What are the technical names for the two major types of errors that researchers may make when they arrive at conclusions concerning their experiments?
    A) Type I and Type II
    B) statistically significant and statistically insignificant
    C) chance and non-chance
    D) confounded and non-confounded

122. What are we MOST likely to find within the pages of the *Publication Manual of the American Psychological Association*?
    A) suggestions for research topics that would be publishable
    B) suggestions on general writing style
    C) guidelines for selecting the proper statistical test to use
    D) a list of keywords that can be used in titles to increase potential interest

123. What is the BEST way to view the *Publication Manual of the American Psychological Association* from a student's perspective?
    A) a guide on general writing as well as the specifics of writing papers
    B) a detailed, line-by-line guide that should be followed in writing any paper
    C) general guidelines that may sharpen your writing but are not etched in stone
    D) material that should be memorized because it will guide every paper written during an academic career

124. Research on the effects of alcohol on visual search performance should give pause to anyone designing similar research. Based on past research, what factor should new researchers take into consideration when designing new studies?
    A) the type of drink consumed
    B) expectations about whether one has consumed alcohol
    C) past use of other drugs that might influence alcohol in the body
    D) stress levels, especially those related to exam periods

125. Buss and Schmitt (1993) hypothesized the following: If participants are male, then they will desire a greater number of sexual partners than will females over any particular period of time. What aspects of a good theory are MOST clearly illustrated by this statement?
    A) testability and specificity
    B) tentativeness and empiricism
    C) parsimony and clarity
    D) external validity and internal validity

126. The example of the theory of Nicolaus Copernicus that the Earth and other planets revolve around the Sun was used to demonstrate the importance of which concept in developing a good theory?
    A) testability
    B) empirical support
    C) parsimony
    D) clarity

127. The acronym KISS (Keep It Simple, Stupid) is the BEST illustration of which characteristic of a good theory?
    A) testability
    B) empirical support
    C) parsimony
    D) clarity

128. A “magician” playing in front of a packed house proceeds to “cut” a young woman in half. Surely there is no way to cut a person in half and then instantly reattach the two parts. It must be a trick, for example, there are actually two women in the box that was cut in half. If the preceding were a student's thought processes as she seeks to understand what occurred, we can be fairly certain that she has a good understanding of which concept?
    A) testability
    B) empirical support
    C) parsimony
    D) lucidity

129. Supportive research evidence does not absolutely prove a theory to be true:
    A) as scientific knowledge is tentative.
    B) due to logical reasoning.
    C) as both scientific knowledge is tentative and logical reasoning.
    D) as neither scientific knowledge is tentative nor logical reasoning.

Answer Key

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

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

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