Chapter 1: Introduction to Statistics

Test Bank

# Multiple Choice

1. The use of tables and graphs to summarize data is an example of \_\_\_\_\_\_.

A. inferential statistics

B. interpretation

C. descriptive statistics

D. generalization

Ans: C

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

2. Statistical analysis allows researchers to \_\_\_\_\_\_.

A. collect data

B. claim that an observation is scientific

C. evaluate scientific observations

D. study physical phenomena but not behavior

Ans: C

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics

Cognitive Domain: Knowledge

Answer Location: The Use of Statistics in Science

Difficulty Level: Easy

3. Procedures that allow researchers to infer or generalize observations made with samples to the larger population from which they were selected best describes \_\_\_\_\_\_.

A. inferential statistics

B. sample statistics

C. descriptive statistics

D. population parameters

Ans: A

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

4. Descriptive statistics are procedures used to \_\_\_\_\_\_.

A. summarize a set of scores or observations

B. organize a set of scores or observations

C. make sense of a set of scores or observations

D. all of these

Ans: D

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

5. A researcher records the number of votes for each of five candidates running for class president. Based on her presentation of the following results, what type of statistics did she use?

|  |  |
| --- | --- |
| Candidate | Number of Votes |
| A | 120 |
| B | 125 |
| C | 42 |
| D | 203 |
| E | 20 |

A. inferential statistics

B. descriptive statistics

C. population statistics

D. deceptive statistics

Ans: B

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics

Cognitive Domain: Comprehension

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

6. Which of the following describes a descriptive statistic?

A. summarize

B. infer

C. generalize

D. predict

Ans: A

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

7. Suppose that a researcher is interested in a group of 10 million people who paid to see a movie playing in theaters. In this example, the 10 million moviegoers would be regarded as \_\_\_\_\_\_.

A. a sample of moviegoers who paid to see the movie in a theater

B. a population of moviegoers who paid to see the movie in a theater

C. an independent variable

D. a dependent variable

Ans: B

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Comprehension

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Medium

8. Researchers measure data in a \_\_\_\_\_\_ to learn more about individuals in the larger \_\_\_\_\_\_ of interest.

A. sample; population

B. statistic; inference

C. population; sample

D. inference; statistic

Ans: A

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

9. Researchers rarely have access to entire populations. How do researchers resolve this limitation?

A. They do not need to resolve this; it is not a limitation at all.

B. They record data from an entire population of people to make inferences concerning characteristics in a sample.

C. They record data from as many persons in a population as possible to draw conclusions concerning only those individuals.

D. They record data from a sample of people in the larger population in order to make inferences concerning characteristics in that larger population.

Ans: D

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

10. A characteristic (usually numeric) that describes a sample is called a \_\_\_\_\_\_.

A. sample

B. sample statistic

C. population

D. population parameter

Ans: B

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

11. A characteristic (usually numeric) that describes a population is called a \_\_\_\_\_\_.

A. sample

B. sample statistic

C. population

D. population parameter

Ans: D

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

12. A researcher records the time it takes to complete a memory task in a sample of 25 participants. He finds that the average participant completed the test in 43 s. The average time to complete this task is called a(n) \_\_\_\_\_\_.

A. population parameter

B. sample statistic

C. inferential statistic

D. time trial

Ans: B

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Comprehension

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Medium

13. A psychologist reviews her notes for all her patients and determines that on average her patients complete therapy in 24 days. The average time to complete therapy among all her patients is called a(n) \_\_\_\_\_\_.

A. population parameter

B. sample statistic

C. inferential statistic

D. time trial

Ans: A

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Comprehension

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Medium

14. A population can be \_\_\_\_\_\_ group of interest to a researcher.

A. any

B. only one

C. only a small

D. only a large

Ans: A

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

15. A researcher identifies college students as a group of interest to test her hypothesis. She then identifies a few local college students and selects a small group of the local college students to be observed. In this example, the sample is \_\_\_\_\_\_.

A. not clearly identified

B. all college students

C. the few local college students

D. the small group of college students who here observed

Ans: D

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Comprehension

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Medium

16. A therapist observes that spouses are more likely to forgive their partners for lying to them if they find out the truth from their spouse and not a third party. In this example, the dependent variable is \_\_\_\_\_\_.

A. the number of partners

B. the spouse

C. lying

D. forgiveness

Ans: D

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Medium

17. \_\_\_\_\_\_ is the variable in an experiment that is manipulated between conditions being observed.

A. Independent variable

B. Quasi-independent variable

C. Dependent variable

Ans: A

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Knowledge

Answer Location: Research Methods and Statistics

Difficulty Level: Easy

18. \_\_\_\_\_\_ is the variable that is believed to change in the presence of the independent variable.

A. Independent variable

B. Quasi-independent variable

C. Dependent variable

Ans: C

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Knowledge

Answer Location: Research Methods and Statistics

Difficulty Level: Easy

19. Which of the following best describes an independent variable?

A. the sample variable

B. the measured behavior

C. the manipulated variable

D. the population variable

Ans: C

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Easy

20. Which of the following best describes a dependent variable?

A. the sample variable

B. the measured behavior

C. the manipulated variable

D. the population variable

Ans: B

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Easy

21. Three research methods common to research in the behavioral sciences are \_\_\_\_\_\_.

A. experimental, transferable, and correlation

B. experimental, variable, and correlational

C. experimental, operational, and quasi-correlational

D. experimental, quasi-experimental, and correlational

Ans: D

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Knowledge

Answer Location: Research Methods and Statistics

Difficulty Level: Easy

22. Three key elements of control that allow researchers to draw cause-and-effect conclusions are \_\_\_\_\_\_.

A. randomization, manipulation, and variation

B. assignment, manipulation, and comparison/control

C. randomization, manipulation, and comparison/control

D. randomization, condition, and comparison/control

Ans: C

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Knowledge

Answer Location: Research Methods and Statistics

Difficulty Level: Easy

23. A researcher tests whether the dosage level of some drug (low, high) causes significant differences in health. To do this, the researcher randomly assigns rat subjects to receive a low or high dosage of the drug and records health-related measures in both groups. The type of method described is \_\_\_\_\_\_.

A. experimental

B. quasi-experimental

C. correlation

D. operational

Ans: A

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Medium

24. Which of the following research designs is used to determine the causes of behavior that help to explain why the behavior occurs?

A. correlational

B. experimental

C. quasi-experimental

D. all of these

Ans: B

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Easy

25. Based on the following graphical summary display, what research design was used to record and analyze these data?

A. correlational

B. experimental

C. quasi-experimental

D. either B or C

Ans: A

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Medium

26. \_\_\_\_\_\_ refer(s) to how the properties of numbers can change with different uses.

A. Measurability

B. Operational definition

C. Scales of measurement

D. Coding

Ans: C

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

27. State the four scales of measurement in order from least informative to most informative.

A. ordinal, nominal, interval, ratio

B. nominal, ordinal, interval, ratio

C. nominal, ordinal, ratio, interval

D. ordinal, nominal, ratio, interval

Ans: B

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Easy

28. An animal researcher measures the number of times a rat presses a lever located at the right, center, and left of a cage for a food reward. What scale of measurement is the location of lever pressing?

A. nominal

B. ordinal

C. interval

D. ratio

Ans: A

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Medium

29. An education counselor records the number of high school graduates enrolled in community colleges, 4-year colleges, and universities. What scale of measurement is the type of college?

A. nominal

B. ordinal

C. interval

D. ratio

Ans: A

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Medium

30. A consultant ranks the five most needed areas of improvement for a local business. What scale of measurement are the rankings?

A. nominal

B. ordinal

C. interval

D. ratio

Ans: B

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Easy

31. A movie critic rates a movie on a scale from 1 (*lowest*) to 4 (*highest*) stars. What scale of measurement are the ratings?

A. nominal

B. ordinal

C. interval

D. ratio

Ans: B

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Medium

32. Interval scales of measurement \_\_\_\_\_\_.

A. have equidistant scales

B. have a true zero

C. both A and B

Ans: A

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

33. Each of the following are interval scale measurements, except \_\_\_\_\_\_.

A. duration of sleep (in hours)

B. scores on an SAT (scholastic assessment test)

C. the latitude and longitude of birth for those suffering from schizophrenia

D. the body temperature (in degrees Fahrenheit) increase during exercise

Ans: A

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Medium

34. A researcher measures the body temperature (in degrees Fahrenheit) of participants immediately before and immediately following sleep. Temperature is on what scale of measurement?

A. nominal

B. ordinal

C. interval

D. ratio

Ans: C

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Medium

35. Which of the following measures of attraction is an example of a ratio scale measurement?

A. a rating of attraction from *most attractive* to *least attractive*

B. a 6-point rating scale from 1 (*attractive*) to 6 (*unattractive*)

C. the status of the relationship (acquaintance, dating, married)

D. the physical proximity (in feet and inches) between two romantic partners

Ans: D

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Medium

36. A researcher compares the amount of college debt (in dollars) that undergraduate students incur up to their 4-year degree. College debt is on what scale of measurement?

A. nominal

B. ordinal

C. interval

D. ratio

Ans: D

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Comprehension

Answer Location: Scales of Measurement

Difficulty Level: Medium

37. The procedure of converting a categorical variable to numeric values, is called \_\_\_\_\_\_.

A. deteriorating

B. piloting

C. coding

D. constructing

Ans: C

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

38. Recording whom students study with describes \_\_\_\_\_\_ types of data; whereas recording the number of hours spent studying per week describes \_\_\_\_\_\_ types of data.

A. qualitative; quantitative

B. continuous; discrete

C. quantitative; qualitative

D. discrete; continuous

Ans: A

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

39. \_\_\_\_\_\_ data describe numeric aspects of phenomena; whereas \_\_\_\_\_\_ data describe nonnumeric aspects of data.

A. quantitative; qualitative

B. qualitative; quantitative

C. continuous; discrete

D. discrete; continuous

Ans: A

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

40. Each of the following is an example of quantitative data, except \_\_\_\_\_\_.

A. weight in ounces

B. income in dollars

C. political affiliation

D. age in years

Ans: C

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables.

Cognitive Domain: Comprehension

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

41. Which of the following terms are least likely to be used to describe qualitative data?

A. nominal

B. descriptive

C. categorical

D. numeric

Ans: D

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables.

Cognitive Domain: Comprehension

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

42. Qualitative data varies by \_\_\_\_\_\_; quantitative data varies by \_\_\_\_\_\_.

A. level; value

B. value; level

C. amount; class

D. class; amount

Ans: D

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

43. Quantitative measures can be \_\_\_\_\_\_.

A. discrete data

B. continuous data

C. both A and B

Ans: C

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

44. You are interested in measuring the construct, work expertise. Which of the following measures for this construct is quantitative and discrete?

A. the total time in hours spent working at a company

B. the job title a person holds in a company

C. the percent of correct responses on a work expertise survey

D. the number of employees that work under an employee

Ans: D

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables. | 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Comprehension

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Medium

45. You are interested in measuring the construct, reinforcement. Which of the following measures for this construct is quantitative and continuous?

A. the number of rewards received

B. the type of reward (food, money)

C. the size of a reward in grams

D. the rating of a reward on a scale from 1 (*not reinforcing*) to 7 (*very reinforcing*)

Ans: C

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables. | 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Comprehension

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Medium

46. \_\_\_\_\_\_ are measured along a continuum at any place beyond the decimal point.

A. Continuous data

B. Discrete data

C. Qualitative data

D. Open-ended data

Ans: A

Learning Objective: 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

47. \_\_\_\_\_\_ are measured in whole units or categories that are not distributed along a continuum.

A. Continuous data

B. Discrete data

C. Quantitative data

D. Open-ended data

Ans: B

Learning Objective: 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

48. Recording the number of dreams recalled is an example of \_\_\_\_\_\_ data; whereas recording the time (in minutes) spent in a dream stage of sleep is an example of \_\_\_\_\_\_ data.

A. qualitative; quantitative

B. continuous; discrete

C. quantitative; qualitative

D. discrete; continuous

Ans: D

Learning Objective: 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Comprehension

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

49. A health practitioner measures the heart rate (in number of beats per minute) of patients under low, moderate, and high stress levels. Heart rate can be best described as \_\_\_\_\_\_.

A. continuous data

B. discrete data

C. a qualitative variable

D. the independent variable

Ans: B

Learning Objective: 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Comprehension

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Medium

50. Researcher A measures academic preparedness as the percent correct responses on an entrance exam; Researcher B measures academic preparedness as the current class rank of students. Which researcher measured academic preparedness as discrete data?

A. Researcher A

B. Researcher B

C. both researchers

D. no researchers

Ans: B

Learning Objective: 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Comprehension

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Medium

# True/False

1. Descriptive statistics are typically presented graphically, in tabular form (in tables), or as summary statistics (single values).

Ans: T

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

2. Descriptive statistics is a branch of mathematics used to make inferences about populations’ given samples of data.

Ans: F

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

3. Two branches of statistics are independent and dependent statistics.

Ans: F

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

4. Descriptive statistics and inferential statistics are used for precisely the same purposes.

Ans: F

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

5. Inferential statistics is used to determine if observations made in a sample are likely to also be observed in the population from which the sample was selected.

Ans: T

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

6. Descriptive statistics can be used to describe populations and samples.

Ans: T

Learning Objective: 1-1: Distinguish between descriptive and inferential statistics.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

7. Most scientists have limited access to the behavioral phenomena they study.

Ans: T

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

8. A social psychologist interested in the expression of love toward a significant other among American family members, selects a few American family members for a study. In this example, the few American family members is the sample.

Ans: T

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Comprehension

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Medium

9. To understand chimpanzee behavior in general, a scientist observes the hierarchy or dominance behavior of a family of male chimpanzees in a naturalistic setting. In this example, the scientist observed the behavior of a population of chimpanzees.

Ans: F

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Comprehension

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Medium

10. Researchers often measure sample statistics to estimate or learn more about *parameters in populations from which the sample statistics were measured.*

Ans: T

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

11. In some cases, the number of participants in a sample can be greater than the number of persons in the population from which the same was selected.

Ans: F

Learning Objective: 1-2: Explain how samples and populations, as well as a sample statistic and population parameter, differ.

Cognitive Domain: Knowledge

Answer Location: Descriptive and Inferential Statistics

Difficulty Level: Easy

12. Only an experiment can demonstrate cause-and-effect relationships between variables.

Ans: T

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Knowledge

Answer Location: Research Methods and Statistics

Difficulty Level: Easy

13. Children received grapefruit juice mixed with 2%, 5%, or 10% sugar to test whether higher concentrations of sugar can enhance liking for the taste of grapefruit juice. In this example, the sugar mixtures are the independent variable.

Ans: T

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Medium

14. Children are randomly assigned to complete a low, moderate, or high difficulty task. The time (in seconds) it takes them to complete the task is recorded. In this example, the level of task difficulty is the dependent variable.

Ans: F

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Medium

15. A researcher records the number of alcoholic drinks consumed per week by students living on campus in rural and urban colleges. In this example, the number of alcoholic drinks consumed per week is the dependent variable.

Ans: T

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Medium

16. A researcher observes the number of tasks completed by male and female participants during a multitasking observation period. In this example, sex (male, female) is the quasi-independent variable.

Ans: T

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Medium

17. A professor measures the number of review sessions attended per week and GPA in a sample of college freshmen and concludes that increased attendance for review sessions is related to higher grades. This research design is an example of an experimental design.

Ans: F

Learning Objective: 1-3: Describe three research methods commonly used in behavioral science.

Cognitive Domain: Comprehension

Answer Location: Research Methods and Statistics

Difficulty Level: Medium

18. The duration of attention (in seconds) is a ratio scale measurement.

Ans: T

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

19. A student’s letter grade (A, B, C, D, F) is a nominal scale measurement.

Ans: F

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

20. The weight (in pounds) of a newborn infant is an interval scale measurement.

Ans: F

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

21. A score on a multiple-choice exam (0–100 points) is a ratio scale measurement.

Ans: T

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

22. An interval scale of measurement is generally more informative than an ordinal scale of measurement.

Ans: T

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

23. Qualitative data are nonnumeric data.

Ans: T

Learning Objective: 1-4: State the four scales of measurement and provide an example for each.

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

24. Researchers who measure qualitative variables can also measure those that are quantitative in the same study.

Ans: T

Learning Objective: 1-4: State the four scales of measurement and provide an example for each

Cognitive Domain: Knowledge

Answer Location: Scales of Measurement

Difficulty Level: Easy

25. A rating scale measurement from 1 (*completely disagree*) to 7 (*completely agree*) is an example of continuous, qualitative data.

Ans: F

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables. | 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

26. The size of a reward (in grams) is an example of continuous, quantitative data.

Ans: T

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables. | 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

27. The political affiliation of participants (Democrat, Republican) is an example of discrete, qualitative data.

Ans: T

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables. | 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

28. The number of students in a class is an example of discrete, quantitative data.

Ans: T

Learning Objective: 1-5: Distinguish between quantitative and qualitative variables. | 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

29. Continuous data are strictly distributed in discrete units.

Ans: F

Learning Objective: 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy

30. Categorical data are one example of discrete data.

Ans: T

Learning Objective: 1-6: Distinguish between continuous and discrete variables.

Cognitive Domain: Knowledge

Answer Location: Types of Variables for Which Data Are Measured

Difficulty Level: Easy