Understanding Basic Statistics 9th edition Brase Test Bank

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Name:_____ Class:_____ Date:_____

Brase_UnderstandingBasicStats_9e_TB_Sect1.1

1. Data may be classified by one of the four levels of measurement. What is the name of the lowest level?

a. interval
b. nominal
c. ordinal
d. ratio
e. simple

ANSWER: b

2. Identify the variable in the information below.

Consider a wildlife reserve known for its diverse ecosystem. Researchers are interested in understanding the distribution of a specific species of birds within the reserve. To estimate the population density of these birds, a random sample of 60 observation points, each covering an area of 200 square meters, is selected. The researchers record the number of bird nests in each observation point as an indicator of the bird population density in the region.

a. number of points
b. size of the points
c. population density of birds
d. number of bird nests in each observation point
e. none of these choices

ANSWER: d

3. Identify whether the variable in the information below is qualitative or quantitative.

USA Today reported that 44.9% of those surveyed (1261 adults) ate in a fast-food restaurant from one to three times each week.

a. qualitative
b. quantitative
c. neither qualitative nor quantitative
d. qualitative as well as quantitative
e. Information does not have any variable.

ANSWER: a

4. Identify the implied population in the information below.

Consider a wildlife reserve known for its diverse ecosystem. Researchers are interested in understanding the distribution of a specific species of birds within the reserve. To estimate the population density of these birds, a random sample of 60 observation points, each covering an area of 200 square meters, is selected. The researchers record the number of bird nests in each observation point as an indicator of the bird population density in the region. The variable in this information is the number of bird nests in each observation point.

a. number of bird nests in each observation point
b. density of birds in some of the observation points

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c. number of bird nests in some observation points in the wildlife reserve
d. all observation points in the wildlife reserve
e. none of these choices

ANSWER: d

5. Identify whether the variable in the information below is qualitative or quantitative.

Consider a wildlife reserve known for its diverse ecosystem. Researchers are interested in understanding the distribution of a specific species of birds within the reserve. To estimate the population density of these birds, a random sample of 60 observation points, each covering an area of 200 square meters, is selected. The researchers record the number of bird nests in each observation point as an indicator of the bird population density in the region. The variable in this information is the number of bird nests in each observation point.

a. quantitative
b. qualitative
c. neither qualitative nor quantitative
d. qualitative as well as quantitative
e. none of these choices

ANSWER: a

6. Identify the implied population in the information below.

A study was conducted to determine whether the average number of hours of sleep affects students' math grades. A random sample of 190 students was invited to participate in the study. During a three-month period, the grades for each exam and quiz were collected. In addition, students were instructed to fill out the information about their daily sleep schedule. The data on sleep was grouped by the number of hours of sleep per day.

a. number of hours of sleep per day
b. average grade
c. grades for each exam and quiz
d. math grades for all students
e. none of these choices are correct

ANSWER: d

7. Alex is interested in the proportion of people, who prefer bowling to other activities, such as skiing and skating. To determine the proportion, a sample of 44 college students was interviewed, which showed that 49% of them preferred bowling to other activities. Is the proportion of respondents who preferred bowling a statistic or a parameter?

a. a parameter
b. a statistic
c. both a parameter and a statistic are correct
d. none of these choices are correct

ANSWER: b

8. The university conducted a survey of all students to determine their favorite type of music. About 18% of the students preferred classical music and 23% of the students were interested in rock music. Is the proportion of all students in the

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population who prefer classical music a statistic or a parameter?

a. a statistic
b. both a parameter and a statistic are correct
c. a parameter
d. none of these choices are correct

ANSWER: c

9. You want to determine which of the 8 faculties at your university has the highest grade point average (GPA). You collect data on the GPA of each faculty and put your records of the GPA of each faculty in a bar chart. Then, you perform a test to determine if the students of the Faculty of Political Science have the highest GPA. Determine whether you are using descriptive or inferential statistics in your research.

a. descriptive statistics
b. inferential statistics
c. both descriptive and inferential statistics are correct
d. none of these choices are correct

ANSWER: c

10. A researcher conducted a survey about people's favorite umbrella color. A random sample of 600 respondents was interviewed. The respondents were asked about their favorite umbrella color, and the results were recoded. The researcher summarized the data using a pie chart to find out what percentage of respondents replied that black is their favorite umbrella color. Determine whether the researcher is using descriptive or inferential statistics.

a. both descriptive and inferential statistics are correct
b. descriptive statistics
c. inferential statistics
d. none of these choices are correct

ANSWER: b

11. Identify the level of measurement corresponding to the data "Humidity level in the store's warehouse" associated with retail operations.

a. ratio
b. nominal
c. interval
d. ordinal
e. none of these choices

ANSWER: c

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