

1. Identify the type of data that would be used to describe a response (quantitative discrete, quantitative continuous, or qualitative).

distance to the closest movie theatre

- A. quantitative continuous
- B. qualitative
- C. quantitative discrete

2. Identify the type of data that would be used to describe a response (quantitative discrete, quantitative continuous, or qualitative).

number of competing computer spreadsheet software packages

- A. quantitative continuous
- B. quantitative discrete
- C. qualitative

3. A study was done to determine the age, number of times per week, and the duration (amount of time) of resident use of a local park in San Jose. The first house in the neighborhood around the park was selected randomly and then every 8th house in the neighborhood around the park was interviewed.

Duration (amount of time) is what type of data?

- A. quantitative discrete
- B. quantitative continuous
- C. qualitative

4. A teacher wants to know if her students are doing homework, so she randomly selects rows two and five and then calls on all students in row two and all students in row five to present the solutions to homework problems to the class.

The above is an example of a

- A. self-selection sample.
- B. stratified sample.
- C. simple random sample.
- D. cluster sample.
- E. convenience sample.
- F. systematic sample.

5. The marketing manager for an electronics chain store wants information about the ages of its customers. Over the next two weeks, at each store location, 100 randomly selected customers are given questionnaires to fill out asking for information about age, as well as about other variables of interest.

The above is an example of a

- A. stratified sample.
- B. simple random sample.
- C. cluster sample.
- D. convenience sample.
- E. systematic sample.
- F. self-selection sample.

6. Only one of the following is a practical difficulty involved in getting accurate results from a telephone survey (the other three are not). Which one is it?

- A. Telephone surveys cannot establish a causal link, and are therefore of limited use.
- B. Telephone surveys can suffer from nonresponse bias. For example, when an individual chosen for the sample can't be contacted or refuses to participate.
- C. Telephone surveys usually suffer from the flaw of lacking context. Usually questions are poorly worded, which leads to bias in the sample.
- D. Telephone surveys are usually self-funded or self-interest studies. Thus, they tend to not be reliable as the funding organization has a particular outcome in mind from the beginning.

7. Airline companies are interested in the consistency of the number of babies on each flight, so that they have adequate safety equipment. Suppose an airline conducts a survey. Over Thanksgiving weekend, it surveys six flights from Boston to Salt Lake City to determine the number of babies on the flights. It determines the amount of safety equipment needed by the result of that study.

Exactly one of the following choices is something which is truly wrong with this study. Which one is it?

A. This study should have sought out the proportion of babies on board a typical flight, not the number of babies on board.

B. Because the people who participated chose to participate, this is a self-selected sample. Therefore, the conclusions cannot be trusted.

C. This study should have taken the survey over multiple weeks of the year. Thanksgiving already sees lots of families traveling to see relatives, so the figures will likely be inflated.

D. Only the parents who are worried about equipment will choose to participate. So non-response is an issue with this survey.

8. A Southwestern Oregon Community College instructor is interested in the mean number of days Southwestern Oregon Community College math students are absent from class during a quarter.

The instructor takes her sample by gathering data on five randomly selected students from every College math class offered. The type of sampling she used is

A. cluster sampling.

B. stratified sampling.

C. systematic sampling.

D. self-selection sampling.

E. simple random sampling.

F. convenience sampling.