

12-5 Practice

Samples and Surveys

Form K

Determine whether each data set is *qualitative* or *quantitative*.

1. price of milk
2. car sales
3. favorite ice cream
4. age at retirement
5. miles per hour
6. lucky number

Determine whether each data set is *univariate* or *bivariate*.

7. height and weight of your friends
8. age of your fish
9. how many sports your friends play
10. distances driven
11. number of points scored
12. width and depth of patio

Determine whether the sampling method is *random*, *systematic*, or *stratified*. Tell whether the method will produce a good sample.

13. A counselor surveys students whose names are drawn out of a bag.
14. A teacher separates the students into boys and girls and randomly selects two students from each group to survey.

Determine whether each question is biased. Explain your answer.

15. Would you rather listen to boring classical music or upbeat pop music?
16. What is your favorite movie?

12-5

Practice (Continued)

Form K

Samples and Surveys

17. You want to find out how much households in your city spend on utilities each month. You ask every tenth person at a local restaurant. How might this create a bias in your results?
18. You want to find out how much time students in your school spend watching television each week. You ask every tenth student in your Advanced Biology class. How might this create a bias in your results?
16. A pizza parlor owner wants to determine whether a new topping, spicy Italian sausage, would be popular with his customers. How could each factor below create bias in the survey results?
- a. The owner interviews customers outside the library.
 - b. The owner interviews his adult customers.
 - c. The owner asks, "Which would you prefer: pepperoni or spicy Italian sausage?"

In each situation, identify the population and sample. Tell whether each sample is a *random, systematic, or stratified* sample.

20. At an office supply store, every fourth customer is asked to complete a survey.
21. You ask a random selection of three girls and three boys in your Algebra class what their favorite movie is.

Classify the data as *qualitative* or *quantitative*, and as *univariate* or *bivariate*.

22. age and height of people at the park
23. favorite sports and favorite hobbies of students in the high school
24. weight of wildlife captured, tagged, and released