

Lesson 1-1

Example 1

RECREATION The director of a local park wants to identify what types of sponsored activities would be most popular among county residents. She plans to use one of the following three methods to collect the data. Which type of sampling method is represented by each method?

- a. Ask the first 25 people who arrive at the park Saturday afternoon.
- b. Ask all county residents who attend baseball games at different parks throughout the county.
- c. Ask all county residents whose address ends with the digit 5.

Solution

- a. convenience sampling
- b. cluster sampling
- c. random sampling

Example 2

ENTERTAINMENT The manager of a movie theater wants to identify the most popular type of movie among movie goers in the area. He decides to ask every fourth customer at the theater who buys a ticket to see a comedy.

- a. What method of sampling does this represent?
- b. Explain whether or not the results are likely to be biased?

Solution

- a. This method is systematic sampling.
- b. The survey results are likely to be biased. Since the only people who will be polled are at the theater to see a comedy, the sample may be biased toward people who prefer comedies. The sample is also biased toward customers of this particular theater since it did not include customers from any other theater in the area.