## In Exercises 1-3, identify the population and classify the sampling method.

1. The manager of a movie rental store wants to evaluate how customers rate the selection of movies that the store has in stock. Customers are given comment cards with their receipts.
2. Your school's administrators want to know if students are satisfied with food choices on the school menu. In each grade, every eighth student in alphabetical order is surveyed.
3. At a family reunion, the next year's reunion location is randomly chosen to be at one of the family member's homes. Each home is put on a slip of paper into a hat. The location is chosen by pulling a name from a hat.

## Tell whether the survey method used is likely to result in a biased sample.

4. The owners of a music store chain want to determine whether or not they should open their stores an hour earlier. They survey the customers in one of their stores at random.
5. A group of students living in the dormitories at a college wants to gather information about the need for a shuttle bus to a local shopping center. They survey every fourth room on each floor of each dormitory.

## In Exercises 6 and 7, tell whether the question is potentially biased. Explain your answer.

6. Do you think that fresh fruit should be offered on the lunch menu?
7. Don't you agree that replacing a parking lot with a city park would help decrease pollution in the city?

## In Exercises 8-10, explain why the question is biased. Then rewrite it so that it is not.

8. Don't you agree that it is better to offer water than soft drinks in the school's vending machine?
9. Don't you agree that a music concert would be more fun to go to than a museum?
10. Would you pay even higher taxes to fund a new civic center?
11. Street Conditions A television station does a report on the condition of the streets in a large city. Part of the report includes a survey of people that live in the area. The survey is done by asking people at a bus stop what they think of local street conditions. Is this sample necessarily representative of local residents? Explain.
