



Identify the population and classify the sampling method.

1. The manager of a music store wants to evaluate how customers rate the selection of music 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 the choices of activities for activity period. In each grade, every seventh student in alphabetical order is surveyed.

In Exercises 3 and 4, tell whether the survey method used is likely to result in a *representative sample* or a *biased sample*. Explain.

3. A bicycling club wants to gather information about biking conditions throughout a city. A survey for bicycle riders is posted on the club's website.
4. A management company that owns several apartment buildings wants to gather information about tenant satisfaction with the condition of the apartments. They survey 30 random tenants in each of the buildings.

5. **Error Analysis** The Student Council wants to produce an unbiased sample to find out if students prefer to attend sporting events or performances such as school plays and concerts. *Describe* and correct the error in the sampling method.

Student Council members survey the students at a drama club meeting after school.



Tell whether the question is potentially biased. Explain your answer.

6. Don't you think that the lunch menu should include grilled chicken rather than pizza because grilled chicken is healthier for you?
7. Do you think that the city's excess revenue should be spent on road repairs or building a new sports stadium?

In Exercises 8 and 9, 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 an accounting class as an elective rather than a computer programming class?
9. Would you pay even higher taxes to fund a new highway?
10. **Bus Stop Conditions** A newspaper does a report on the condition of the bus stops in a large city. Part of the report includes a survey of people living in the area. The survey is done by asking people at a local mall what they think of the condition of the bus stops. Is the sample likely to be representative or biased? *Explain*.
11. **Afterschool Activities** You plan a report on the participation of students at your school in afterschool activities for your school's website. *Describe* how you could choose a representative sample. *Justify* your sampling method.