

PRACTICE EXERCISES

Identify the type of sample used in each of the following situations.

1. There are 40 Grade 9 students, 50 Grade 10 students, 50 Grade 11 students, and 50 grade 12 students in a particular school. Four students from Grade 9 and five students from Grades 10, 11, and 12 are selected to give their opinions on a school dress code.
2. One battery out of each lot produced is tested to see how long it lasts.
3. Seventy-five senior citizens are polled about their thoughts on the provincial election.
4. Kim went to the beach and asked people who were sunbathing if they would be willing to try a sample of a new suntan lotion. Justify whether the sample is biased.
5. In a survey to see how often people go to the dentist, a group of people was asked how many times they had been to the dentist in the last month.
The results were:
0 times—87%
1 times—6%
2 times—4%
3 times—2%
More than 3—1%
 - a) Explain why the survey is biased.
 - b) How you could change the question to make it unbiased?

6. Louise surveyed 45 parents about which restaurant they liked the best. How would the results change if Louise had surveyed 45 children?

7. An elementary school has 105 female students and 130 male students. The librarian wants to order new books for the library and decides to survey the students to determine their topics of interest. She surveys 30 female and 30 male students, all whose names were randomly selected.

a) Explain the source of bias in the given situation, if any exist.

b) Describe any additional considerations that could be used to decide on a sampling technique.
