



► Solve the problems.

- 1 A city manager wants to know if city residents think the recreation center should have extended hours for teenagers. Which sample is likely to be representative of the population of city residents?
- A Roll a number cube to select one of the first six names in a list of females in the city, then select every 9th name.
 - B Spin a spinner with sections labeled 1 through 5 to select one of the first five names in a list of people living alone in the city, then select every 4th name.
 - C Spin a spinner with sections labeled 1 through 5 to select one of the first five names in a list of registered voters in the city, then select every 9th name.
 - D Roll a number cube to select one of the first six names in a list of the city residents, then select every 15th name.
- 2 A researcher wants to collect data on how many hours bears sleep during the year. The researcher decides to put an electronic device on all bears that live less than one-half mile from the research station. Are the conclusions drawn from this sample likely to be true for all bears? Explain your reasoning.

SOLUTION _____



- 3 Alissa surveys a random sample of 50 students at her school about the country they would most like to visit. The table shows her results. Based on the sample, can Alissa conclude that there are probably fewer students at her school who want to visit Japan than Australia? Explain your reasoning.

Country	Australia	Egypt	Mexico	Japan	Sweden	Canada
Frequency	13	10	9	7	7	4

SOLUTION _____

- 4 Students who volunteer at an animal shelter make a flyer to encourage students at their school to adopt a pet. They survey a random sample of 25 students in the school's marching band. They find that 52% do not have any pets in the home. They write this statement on the flyer:

Over half of the students in this school do not have pets! Consider adopting a pet from the Caring Animal Shelter this weekend!

Is the statement misleading? Explain your reasoning.

SOLUTION _____
