

# 11-8 Standardized Test Prep

## Samples and Surveys

### Multiple Choice

For Exercises 1–4, choose the correct letter.

- The School Dance Committee conducts a survey to find what type of music students would like to hear at the next dance. Which sampling method is *least* likely to result in a biased sample? **B**
  - Call 20% of the people in the senior class directory.
  - Interview every 10th student as they enter the school.
  - Ask every 5th person leaving a school orchestra concert.
  - Set up a jazz website where students can list their 3 favorite songs.
- A news reporter wants to determine what types of movies are most popular in her city. She surveys the first 20 people leaving a movie theater at 8:00 P.M. on a Friday. Which best describes the sampling method used in this situation? **F**

|  |   |
|--|---|
| <input type="radio"/> F convenience sample   | <input type="radio"/> H random sample     |
| <input type="radio"/> G self-selected sample | <input type="radio"/> I systematic sample |
- A veterinarian monitors a litter of 8 kittens and records their ages in days when they first open their eyes. Which type of study method was used in this situation? **B**

|   |                                       |
|---|---------------------------------------|
| <input type="radio"/> A controlled experiment | <input type="radio"/> C random sample |
| <input type="radio"/> B observational study   | <input type="radio"/> D survey        |
- A high-school principal wants to determine how students feel about a new gym that has been proposed for the school. Which survey question is most likely to yield information that has no bias? **F**
  - Do you think that the school should build a new gym?
  - Do you think that building a new gym will be a waste of money?
  - Shouldn't the school build a new gym to promote healthy exercise?
  - Should the school build a new gym when the science lab is outdated?
- The manager of an athletic store selects every tenth name on a list of the players in a city baseball league for middle school students. He asks each selected player what brand of glove he or she uses while playing baseball. Assuming that the sample accurately reflects the population, what is the population in this situation? **C**

|   |  |
|---|--|
| <input type="radio"/> A all baseball players in the city    | <input type="radio"/> C all baseball players in the league     |
| <input type="radio"/> B all customers of the athletic store | <input type="radio"/> D all middle school students in the city |

### Short Response

- [2] Student describes an appropriate sampling method for the population and correctly explains why the sample is unlikely to be biased.**
- [1] Incorrect or incomplete sampling method and explanation given**
- Describe a sampling method you could use to find the type of music that is most popular among students at your school. Tell why the sample is unlikely to have a bias.

**[0] Incorrect sampling method and no explanation given OR no answer given**

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