Answers for Lesson 10-3, pp. 482–483 Exercises

1. Researchers use samples because there are usually too many objects or people in a population to survey.

2. Students from one bus do not represent all students traveling to school.

3. Answers may vary. Sample: Do you like reality television or homework, or neither?

4. Answers may vary. Sample: Biased questions may lead to invalid conclusions.

5. This is a random sample; the population is the students in the class.

6. This is not a random sample; 25 friends may not be representative of all of the students in the school.

7. This is not a random sample; students at one middle school may not represent all middle school students.

8. This is not a random sample; students in the eighth grade are not representative of all the students in the school.

9. Biased; it makes roses sound more appealing than carnations.

10. Not biased; it does not try to influence your answer.

11. Not biased; it does not try to influence your answer.

12. Yes; you are using a random sample.

13. No; not everyone walking on the street is a visitor.

14. Answers may vary. Sample: biased surveys may lead to misleading probability values and statistics.

15. a. people who register a car

    b. $\frac{12}{41}$

16. Answers may vary. Sample: Do you prefer to watch baseball or figure skating, or neither?

17. Answers may vary. Sample: Do you prefer to swim in a pool or in the ocean, or neither?

18. It assumes you like eggs.

19. C   **20.** J   **21.** B   **22.** 2 : 1