

Extra Practice ■ Chapter 7

LESSON 7-1

Find the mean, median, mode, and range of each data set.

1.

Points Scored				
16	18	23	13	15

2.

Hours Worked							
37	42	43	38	39	40	45	40

LESSON 7-2

3. a. The table shows a student's test scores. Find the mean, median, mode, and range of the test scores.
 b. On the next test the student scored a 92. Find the mean, median, mode, and range with the new test score.

Test Scores			
78	82	87	95

4. The scores Anna received for her balance beam routine in a gymnastics competition were 8.80, 9.90, 8.75, 8.95, 8.95, 8.95, and 9.00. What score represents an outlier?
5. The daily high temperatures for the first seven days of April were 52°F , 63°F , 61°F , 54°F , 52°F , 55°F , and 68°F . On April 8, the high temperature was 88°F . Find the mean, median, mode, and range of the data with and without the high temperature on April 8, and explain the changes.

LESSON 7-3

6. The list shows the number of miles Trey ran per day during training.
 5, 6, 5, 5, 6, 5, 4, 6, 14

What are the mean and median of this data set? Is one measure more useful than the other for describing the typical distance run per day? Explain.

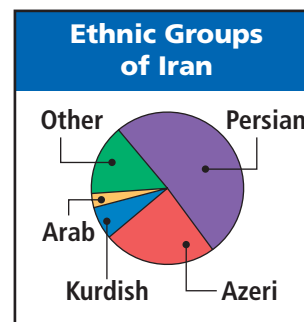
7. The list shows the prices of used cars at a car dealership.
 \$9,200; \$3,700; \$8,600; \$9,400; \$8,800;
 \$12,400; \$8,800; \$4,600, \$7,500; \$10,200

The manager wants to convince customers that the dealership has low prices on used cars. Should the manager use the mean, median, or mode to describe the data set? Explain.

LESSON 7-4

The circle graph shows the results of a survey of 100 people from Iran who were asked about their ethnic backgrounds. Use the graph for Exercises 8–10.

8. Which ethnic group is the second largest?
9. According to the survey, 3% of the people are Arab. How many of the people surveyed are Arab?
10. Greg claims that about 50% of the people surveyed are Persian. Is his claim valid? Explain.

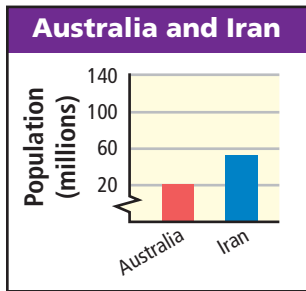


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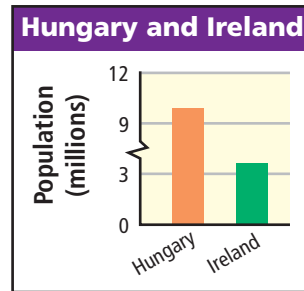
LESSON 7-5

Explain why each graph could be misleading.

11.



12.



LESSON 7-6

13. About 22% of adults in the United States visited a beach in 2004. Kiki surveyed a random sample of adults from two towns. Compare the samples with the national percent.

Visited Beach in 2004		
Sample	Yes	No
Town A	63	87
Town B	38	112

14. A principal estimates that about 100 of the 842 students at a high school have part-time jobs. A random sample of 50 of the students show that 11 of them have part-time jobs. Determine whether the principal's estimate is likely to be accurate.

LESSON 7-7

15. Determine which sampling method will better represent the entire population. Justify your answer.

Election for Mayor	
Sampling Method	Results of Survey
Erik surveys 100 voters by randomly choosing names from a voter registration list.	54% plan to vote for Zoe Stott.
Laura surveys 100 voters by visiting a local library one Saturday.	38% plan to vote for Zoe Stott.

LESSON 7-8

Determine whether each sample may be biased. Explain.

16. A bank asks the first 10 customers that enter in the morning if they are satisfied with the bank's late afternoon lobby hours.

17. Members of a polling organization survey 1,000 residents by randomly choosing names from a list of all residents.

Determine whether each survey question may be biased. Explain.

18. What is your favorite type of vegetable?

19. Don't you agree that our school needs a longer lunch period?