13.6 EXERCISES

SKILL PRACTICE

1. **VOCABULARY** Copy and complete: The value that occurs most frequently in a data set is called the __?__ of the data.

2. **WRITING** How are measures of central tendency and measures of dispersion used to compare data?

EXAMPLE 1
on p. 875
for Exs. 3–10

MEASURES OF CENTRAL TENDENCY Find the mean, median, and mode(s) of the data.

3. 1, 1, 1, 2, 3, 3, 5, 5, 6

4. 9, 10, 12, 15, 16

5. 13, 16, 19, 20, 22, 25, 30, 31

6. 14, 15, 15, 14, 14, 16, 18, 15

7. 5.52, 5.44, 3.60, 5.76, 3.80, 7.22

8. 300, 320, 341, 348, 360, 333

9. 🔻 **TAKS REASONING** What is the median of the data set?

   0.7, 0.3, 0.7, 0.8, 0.9, 0.4, 1.0, 1.6, 1.2

   (A) 0.7   (B) 0.8   (C) 0.9   (D) 1.0

10. **ERROR ANALYSIS** *Describe* and correct the error in finding the median of the data set.

    7 4 6 2 4 6 8 8 3

    The median is 4.   ✗

EXAMPLE 2
on p. 876
for Exs. 11–16

MEASURES OF DISPERSION Find the range and mean absolute deviation of the data. Round to the nearest hundredth, if necessary.

11. 30, 35, 20, 85, 60

12. 111, 135, 115, 120, 145, 130

13. 30, 45, 52, 48, 100, 45, 42, 45

14. 505, 510, 480, 550, 495, 500

15. 1.25, 1.50, 1.70, 0.85, 1.00, 1.25

16. 38.2, 80.1, 2.6, 84.2, 2.5, 5.5

17. **WRITING** *Explain* why the mean absolute deviation of a data set is generally a better measure of dispersion than the range.

18. **CHALLENGE** Write a data set that has a mean of 10, a median of 10, and modes of 5 and 8.

PROBLEM SOLVING

EXAMPLE 1
on p. 875
for Exs. 19–20

19. 🔻 **TAKS REASONING** The weights (in pounds) of ten pumpkins are 22, 21, 24, 24, 5, 24, 5, 23, 24, and 24.

   a. What is the range of the pumpkin weights?

   b. Find the mean, median, and mode(s) of the pumpkin weights.

   c. Which measure of central tendency best represents the data? *Explain.*

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