

# Practice 2-7

## Using Measures of Central Tendency

**Find the mean, median, mode, and range.**

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| <p>1. number of cars sold in the past 10 days<br/>1 5 3 2 1 0 4 2 6 1</p> <p>3. prices of a sweater in 5 different stores<br/>\$31.25 \$27.50 \$28.00 \$36.95 \$32.10</p> <p>5. hourly wages<br/>\$7.25 \$6.75 \$8.10 \$9.56 \$7.10 \$7.75</p> | <p>2. utility bills for the past 6 months<br/>\$90 \$120 \$140 \$135 \$112 \$126</p> <p>4. scores on a 10-point quiz<br/>7 9 10 8 4 2 6 10 8</p> <p>6. ages of students on the quiz team<br/>15 15 14 16 17 16 16 15</p> |
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**Write and solve an equation to find the value of  $x$ .**

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| <p>7. 4.8, 1.6, 5.2, <math>x</math>; mean 3.7</p> <p>9. 100, 172, 85, 92, <math>x</math>; mean 115</p> | <p>8. 40, 98, 94, 102, 21, <math>x</math>; mean 88</p> <p>10. 25.6, 19.3, 19, <math>x</math>, mean 24</p> |
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11. In his eight games against Boston, a baseball pitcher threw the following number of strikeouts: 1, 2, 4, 2, 1, 3, 3, and 0. In his five games against St. Louis, he recorded strikeouts as follows: 3, 1, 2, 3, and 2. Did the pitcher average more strikeouts against Boston or against St. Louis?
12. Randy had grades of 85, 92, 96, and 89 on his last four math tests. What grade does he need on his next test to have an average of 92?
13. To test the exhaust fumes of a car, an inspector took six samples. The exhaust samples contained the following amounts of gas in parts per million (ppm): 8, 5, 7, 6, 9, and 5. If the maximum allowable mean is 6 ppm, did the car pass the test? Explain.
14. A coffee machine is considered reliable if the range of amounts of coffee that it dispenses is less than 2 fluid ounces (fl oz). In eight tries, a particular machine dispensed the following amounts: 7.1, 6.8, 7.6, 7.1, 7.4, 6.8, 7, and 6.7 fl oz. Is the machine reliable? Explain.
15. According to its producer, an off-Broadway show would make a profit if an average of at least 1100 tickets were sold per show. For the past 12 shows, the number of tickets sold was as follows: 1000, 800, 1600, 900, 1200, 900, 800, 1700, 900, 1200, 1000, and 1200. Using the mean as the average, did the show make a profit for these 12 shows?
16. a. A bakery collected the following data about the number of loaves of fresh bread sold on each of 24 business days. Make a stem-and-leaf plot for the data.
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|----|----|----|----|----|----|----|----|----|----|----|----|
| 43 | 39 | 17 | 38 | 50 | 42 | 34 | 28 | 37 | 42 | 40 | 33 |
| 72 | 36 | 45 | 21 | 29 | 44 | 41 | 37 | 40 | 35 | 51 | 54 |
- b. Find the mean, median, mode, and range of the data.
17. a. The following numbers of calls were made to the police department in the last 24 days. Make a stem-and-leaf plot for the data.
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|----|----|----|----|----|----|----|----|----|----|----|----|
| 32 | 42 | 35 | 52 | 58 | 52 | 46 | 61 | 52 | 63 | 81 | 61 |
| 63 | 39 | 41 | 48 | 62 | 61 | 58 | 34 | 49 | 47 | 49 | 31 |
- b. Find the mean, median, mode, and range of the data.