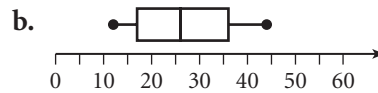
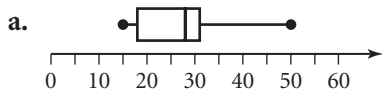


# Lesson 2.1 • Measures of Central Tendency and Box Plots

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

- Find the mean, median, and mode for each data set.
  - $\{2, 3, 5, 5, 7, 7, 7, 8, 9, 10\}$
  - $\{8, 7, 5, 6, 3, 2, 9, 8\}$
  - $\{210, 180, 188, 162, 170\}$
  - $\{4.5, 20.7, 35.2, 28.8, 36.5, 40.5\}$
  - $\{5.3, 8.4, 5.3, 9.2, 10.6, 9.2\}$
  - $\{2150, 1860, 2340, 1990\}$
- Invent a data set that matches each description.
  - Five values, *mean* = 15, *median* = 13, no mode
  - Six values, *mean* = 24, *median* = 25, *mode* = 28
- Suppose that you have a data set containing 1000 test scores. How many scores would you expect to find matching each description?
  - Above the median
  - Below the first quartile
  - Between the first and third quartiles
  - Above the third quartile
  - Below the third quartile
  - Above the first quartile
  - Between the median and the third quartile
- Give the five-number summary for each data set.
  - $\{10, 8, 6, 4, 2\}$
  - $\{0, 30, 45, 50, 75, 80, 95\}$
  - $\{8, 6, 8, 2, 9, 4, 4, 3, 1\}$
  - $\{32, 55, 16, 70, 65, 55, 40, 49\}$
  - $\{19.3, 32.4, 20.5, 18.0, 26.6, 21.4, 16.7, 33.9\}$
  - $\{0.52, 3.91, 4.67, 2.20, 8.15, 5.91, 7.94, 1.11, 6.55, 4.03\}$
- Match each box plot to one of the data sets below.



- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| A. $\{29, 16, 20, 28, 5, 50, 15\}$  | B. $\{30, 18, 22, 28, 31, 15, 50\}$ |
| C. $\{21, 12, 33, 44, 26, 15, 36\}$ | D. $\{48, 41, 35, 12, 15, 19, 26\}$ |

## Lesson 2.2 • Measures of Spread

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

- For each data set, find the mean, the deviation from the mean for each value, and the standard deviation of the data set. (Round to the nearest tenth.)
  - {12.4, 26.3, 9.8, 33.9, 7.6}
  - {235, 413, 505, 111, 700, 626, 357}
  - {0.5, 2.6, 1.8, 4.7, 0.9}
- For each data set, give the mean and the standard deviation. Include appropriate units in your answers.
  - The heights in inches of eight children are 32, 45, 39, 51, 28, 54, 37, and 42.
  - The lengths in centimeters of six pencils are 8.5, 19.0, 11.8, 13.2, 16.4, and 6.1.
  - The prices of seven music CDs are \$13.50, \$10.95, \$9.95, \$16.00, \$12.50, \$15.95, and \$17.75.
- For each data set, find the median, the range, and the *IQR*.
  - {18, 13, 15, 24, 20}
  - {4, 9, 7, 6, 0, 11, 7}
  - {356, 211, 867, 779, 101, 543}
- Identify all outliers in each data set.
  - {20, 8, 32, 18, 105, 4, 45}
  - {3.2, 4.9, 1.6, 2.8, 5.5}
  - {35, 38, 5, 46, 49, 41, 52, 95}

