

FINDING THE MEDIAN

- 1 Order observations from least to most.
- 2 Find the middle position by adding one to the total number of observations and dividing by two.
- 3 *If the middle position is a whole number, as in the left-hand panel below, use this number to count into the set of ordered observations.*
- 4 The value of the median equals the value of the observation located at the middle position.
- 5 *If the middle position is not a whole number, as in the right-hand panel below, use the two nearest whole numbers to count into the set of ordered observations.*
- 6 The value of the median equals the value midway between those of the two middlemost observations; to find the midway value, add the two given values and divide by two.

<p>Set of five observations:</p> <p>1 2, 8, 2, 7, 6</p> <p>2 $\frac{5 + 1}{2} = 3$</p> <p>3 2, 2, 6, 7, 8</p> <p>4 $\underbrace{1 \quad 2 \quad 3}$ median = 6</p>	<p>Set of six observations:</p> <p>1 3, 8, 9, 3, 1, 8</p> <p>2 $\frac{6 + 1}{2} = 3.5$</p> <p>5 1, 3, 3, 8, 8, 9</p> <p>6 median = $\frac{3 + 8}{2} = 5.5$</p>
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Adapted from Witte, Robert S. Statistics, 4th edition. New York: Harcourt, 1993, p. 60

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