**BUILD YOUR VOCABULARY** (pages 27–28)

The mean, median, and mode are called **measures of central tendency**.

The **median** is the middle number of ordered data. The **mode** is the number that occurs most often.

**EXAMPLE**

Find the Median and the Mode

**NUTRITION** The table shows the Calorie content of various vegetables. Find the median and the mode of the data.

<table>
<thead>
<tr>
<th>Number of Calories in Selected Vegetables (per serving)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 35 50</td>
</tr>
<tr>
<td>31 5 25</td>
</tr>
<tr>
<td>85 25 20</td>
</tr>
<tr>
<td>55 15 40</td>
</tr>
</tbody>
</table>

Source: *The World Almanac*

To find the median, order the data from

median: 5, 15, 15, 20, 25, 25, 31, 35, 40, 50, 55, 85

\[
\frac{35 + 35}{2} = \boxed{35} \text{ or } \boxed{35}
\]

mode: 5, 15, 15, 20, 25, 25, 31, 35, 40, 50, 55, 85

The median is \boxed{35}. There are two modes, \boxed{15} and \boxed{25}.

**Check Your Progress**

**COLLEGE** The table shows the ages of students at a local college. Find the median and the mode of the data.

<table>
<thead>
<tr>
<th>Student Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 21 19 35</td>
</tr>
<tr>
<td>19 20 19 18</td>
</tr>
<tr>
<td>24 19 18 23</td>
</tr>
</tbody>
</table>
**BUILD YOUR VOCABULARY** (pages 27–28)

The **range** of a set of data is the **between** the **and the **values of the set.

**EXAMPLE** Find the Range

**TEMPERATURE** The high temperatures for Las Vegas last week were 65°, 68°, 72°, 65°, 80°, 55°, and 65°. Find the range of the data. Then write a sentence that describes how the data vary.

The highest temperature is **. The lowest temperature is **. So, the range is ** – ** or 25°. The range is relatively small, so the data are fairly close in value.

**Check Your Progress** GYMS The number of people attending a gym class Monday through Saturday were 25, 74, 48, 32, 61, and 54. Find the range of the data. Then write a sentence that describes how the data vary.

**EXAMPLE** TEST EXAMPLE The table shows the number of hot dogs eaten by each contestant at a hot dog eating contest. Which statement is supported by the data in the table?

<table>
<thead>
<tr>
<th>Number of Hot Dogs Eaten</th>
<th>22</th>
<th>19</th>
<th>29</th>
<th>32</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>49</td>
<td>23</td>
<td>37</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>29</td>
<td>18</td>
<td>10</td>
<td>25</td>
</tr>
</tbody>
</table>

**Source:** Nathan's Famous

A If the number of hot dogs eaten were distributed equally among all the contestants, each player would have eaten 39 hot dogs.

B Half the contestants ate more than 20 hot dogs and half ate less than 20 hot dogs.

C Most of the contestants ate 22 hot dogs.

D The range of the numbers of hot dogs eaten is not very spread out.
**Foldables**

ORGANIZE IT

Under Lesson 2-7 in your Foldable, explain median, mode, and range and how to find them.

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**Read the Item**

The answer choices refer to the mean, median, mode, and range.

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

**mean:**

\[
\frac{22 + 19 + 29 + 32 + 20 + 49 + 23 + 37 + 22 + 22 + 15 + 29 + 18 + 10 + 25}{15}
\]

\[= \text{ or } \]

median:

10, 15, 18, 19, 20, 22, 22, 22, 23, 25, 29, 29, 32, 37, 49 =

mode:

range: =

Determine which measure is referred to in each answer choice.

**Choice A** refers to the mean, but the correct mean is not 39.

**Choice B** refers to the median, but the correct median is not 20.

**Choice C** refers to the mode, which is .

**Choice D** refers to the range, but the range of is spread out.

The correct answer is .

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**Check Your Progress**

MULTIPLE CHOICE Which statement is supported by the data in the table?

<table>
<thead>
<tr>
<th>Average Annual Precipitation (days) in Selected Southwestern U.S. Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
</tr>
<tr>
<td>36</td>
</tr>
<tr>
<td>90</td>
</tr>
</tbody>
</table>

**F** Half the cities have more than 50 days of precipitation and half have less than 50 days of precipitation.

**G** If the number of days of precipitation were distributed equally among all the cities, each city would have 51 days of precipitation.

**H** The range of the numbers of days of precipitation is not very spread out.

**J** Most of the cities have 36 days of precipitation.

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**HOMEWORK ASSIGNMENT**

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Exercises: