

MAIN IDEA

- Find and interpret the median, mode, and range of a set of data.

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**

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

Number of Calories in Selected Vegetables (per serving)		
15	35	50
31	5	25
85	25	20
55	15	40

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

$$\frac{\boxed{}}{\boxed{}} = \boxed{} \text{ or } \boxed{}$$

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

The median is . There are two modes, and .

REMEMBER IT

When there is an even number of data values, the median is the mean of the two middle numbers.

Check Your Progress

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

Student Age			
20	21	19	35
19	20	19	18
24	19	18	23

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

EXAMPLE Find the Range

- 1 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

- 3 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?

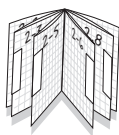
Number of Hot Dogs Eaten				
22	19	29	32	20
49	23	37	22	22
15	29	18	10	25

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 are and how to find them.

**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:

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

$$= \boxed{} \text{ or } \boxed{}$$

median:

$$10, 15, 18, 19, 20, 22, 22, 22, 23, 25, 29, 29, 32, 37, 49 = \boxed{}$$

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 .

Check Your Progress

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

Average Annual Precipitation (days) in Selected Southwestern U.S. Cities			
59	32	72	26
36	36	52	52
90	43	63	

- 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.

HOMEWORK ASSIGNMENT

Page(s):

Exercises: