



7-8

Name _____

Date _____

Vocabulary

mean

► Calculate the Mean

The **mean** of a set of data is a number that describes the size of each of n equal groups made from n data values. You can find the mean by adding the values and dividing that sum by the number of values.

1. Davis made 4 clay pots on Friday, 7 clay pots on Saturday, and 4 clay pots on Sunday. What is the mean number of pots he made each day? Make a drawing to show how the pots for each day can be redistributed to find the mean.

2. Serena, Marco, and Ray each have a fish tank. Serena has 5 fish. Marco has 6 fish. Ray has 10 fish. What is the mean number of fish that the three friends have? Make a drawing to show how they can move fish so each person has an equal share.

Find the mean.

3. 2, 3, 5, 7, 8

Mean: _____

4. 1, 6, 13, 4, 12, 3, 10

Mean: _____

5. 29, 35, 18, 62

Mean: _____

6. 165, 917, 443, 212, 218

Mean: _____

UNIT 7 LESSON 8

Show your work.

Averages **299**



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► Word Problems With Mode and Median

The mode and median are also measures for a set of data. The mean, median, and mode are sometimes called **measures of central tendency**.

The **median** of a set of data is the middle value when the values are listed in order from least to greatest.

14, 25, 27, 32, 32
The median is 27.

If there are two middle values, the median is the mean of the two middle values (it is halfway between them).

14, 25, 32, 32
The median is the mean of 25 and 32, which is 28.5.

The **mode** of a set of data is the value that appears most often. A set of data can have one mode, several modes, or no mode (when no data value is repeated).

14, 25, 27, 32, 32
The mode is 32.
14, 25, 27, 32
There is no mode.

Solve.

Show your work.

11. There was a Guess-Your-Age booth at the fair. One afternoon, the ages of the visitors to the booth were 22, 33, 22, 30, 33, 27, and 22. Find the mean, median, and mode of the ages.

mean: _____

median: _____

mode: _____

12. One more person came to the booth. His age was 67 years. Find the new mean, median, and mode of the visitors' ages.

mean: _____

median: _____

mode: _____

UNIT 7 LESSON 8

Averages **301**



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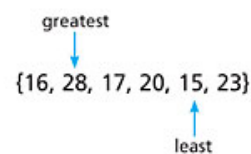
Vocabulary

range

► Find Range

A **range** is a way to describe data, and is found by subtracting the least (or minimum) number in a set from the greatest (or maximum) number.

For example, in the set of numbers at the right, the greatest number is 28 and the least number is 15. The range of the set of numbers is 13 because $28 - 15 = 13$.



Find the range of each set of numbers.

18. {7, 5, 5, 1, 9, 4, 5}

19. {68, 81, 47, 56, 19, 30}

20. {104, 267, 199, 431}

range = _____

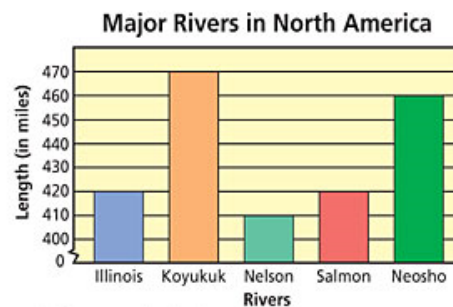
range = _____

range = _____

► Statistics and Bar Graphs

The data in a bar graph can be described in many ways. Some of the ways include finding the mean, median, mode (if any), and range of the data.

Use the bar graph at the right to answer the questions.



21. How can you tell simply by looking at the graph that the mean length is greater than 410 miles?

22. Explain how you can find the median simply by looking at the graph.

23. Which measure or measures of the data—mean, median, mode, or range—would *not* be affected if a river with a length of 450 miles was added to the graph? _____