

Name _____

Date _____

Measures: Mean, Median, Mode, and Range- Step-by-Step Lesson**Lesson 1 Statistics Problem:**

1. Find the mean, median, mode, and range of the data set:

18, 17, 21, 21, 24, 16, 29, 18, 21, 17

mean = _____ median = _____ mode = _____ range = _____

Explanation:

The "mean" is the "average", where we add up all the numbers and then divide by the number of integers we used.

$$\text{Mean} = \frac{\text{Sum of elements in set}}{\text{Number of element in set}}$$

The "median" is the "middle" value in the list of numbers. The best way to determine this is to write all the numbers in numerical order. We can use one of the following formulas to determine the position of the median in that set.

When the numbers of element in set are odd then use this formula:

$$\text{Median} = \frac{\text{Number of element in set} + 1}{2}$$

"Mode" is the data item that occurs most often.

The "range" is just the difference between the largest and smallest values.

$$\text{mean} = \frac{202}{10}$$

$$\frac{202}{10} = 20.2$$



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The number of element in set is 10 which is even number.

$$\text{Median} = \frac{10+1}{2} = \frac{11}{2} = 5.5$$

(Position 5.5 means that we take the average between the 5th and 6th position.)

16, 17, 17, 18, **18, 21**, 21, 21, 24, 29

If we average 18 and 21, we get:

Median is: 19.5

16, 17, 17, 18, 18, **21, 21, 21**, 24, 29

Mode = The item that occurs most often.

Mode is: 21

Range = 29 - 16 = 13

Answer is: 13

