

Measures of Central Tendency: The Mean, Median, Mode, and Range

When finding the measures of central tendency the first step is to place the numbers in order from least to greatest

Mean (Average): Add up a list of values in a set of data and divide by the number of values you have.

6, 4, 4, 3, 8

Step 1	Put in order from least to greatest	3, 4, 4, 6, 8
Step 2	Add up all the numbers	$3 + 4 + 4 + 6 + 8 = 25$
Step 3	Divide by the number of values you have	$25 \div 5 = 5$
Answer		The mean is 5

Median (Middle): The middle value in a set of data when the values are written in order. If there are 2 values in the middle, find the mean of the two.

6, 4, 4, 3, 8

Step 1	Put in order from least to greatest	3, 4, 4, 6, 8
Step 2	Find the middle number **If there are an odd number of data values	3, 4, <u>4</u> , 6, 8
Answer		The median is 4

6, 4, 4, 3, 8, 5

Step 1	Put in order from least to greatest	3, 4, 4, 5, 6, 8
Step 2	Find the middle number **If there are an even number of data values then there will be two middle numbers	3, 4, <u>4</u> , <u>5</u> , 6, 8
Step 3	Find the mean of the two middle numbers	$4 + 5 = 9$ $9 \div 2 = 4.5$
Answer		Median = 4.5

Mode (MOST): The value in a set of data that is repeated most often. A set of data could have no mode, one mode, or more than one mode.

6, 4, 4, 3, 8

Step 1	Put in order from least to greatest	3, 4, 4, 6, 8
Step 2	Find the number that occurs most often	3, <u>4</u> , <u>4</u> , 6, 8
Answer		The mode is 4

Range: The largest number minus the smallest number

6, 4, 4, 3, 8

Step 1	Put in order from least to greatest	3, 4, 4, 6, 8
Step 2	Subtract the largest number minus the smallest number	$8 - 3$
Answer		The Range = 5