



Math Tips: Simple Statistics

Key Terms:

- **Mean:** The average of a set of numbers.
- **Median:** The middle number in a set of numbers.
- **Mode:** The most frequently occurring number in a set of numbers.
- **Min:** The smallest value of a set of numbers.
- **Max:** The largest value of a set of numbers.

Handy Calculations:

To keep things simple, we'll use one set of numbers as our "**data set**" to calculate all the statistics listed above:

12, 6, 5, 14, 7, 13, 6

To calculate the mean (or Average) follow two simple steps.

First, add up all the numbers in the data set to find the total:

$$12 + 6 + 5 + 14 + 7 + 13 + 6 = 63$$

Then, divide the total by the number of data points in your list:

$$63/7 = 9$$

In this case, our data set has seven numbers, and they add to 63. The **mean** is 9, since 63 divided by 7 equals 9. *Note: For this data set, the Mean (9) is not one of the original data points.* This is often true for a mean or average because it has to be calculated: the result can be any whole number, or even a fraction! It does not have to be part of the original data set.

To find the median, line the numbers up in order from smallest to largest, and find the number in the middle:

5, 6, 6, 7, 12, 13, 14

In this case, the **Median** is 7, because three numbers are higher and three numbers are lower.

To find the mode, find the number that appears most often.

5, 6, 6, 7, 12, 13, 14

In this case, the **Mode** is 6, because it is the only number appearing more than once in our data set.

To find the minimum and maximum, line the numbers up in order from smallest to largest. The smallest number is the minimum, or "min." The largest number is the maximum, or "max."

5, 6, 6, 7, 12, 13, 14

In this case, the **minimum** value is 5, and the **maximum** value is 14.