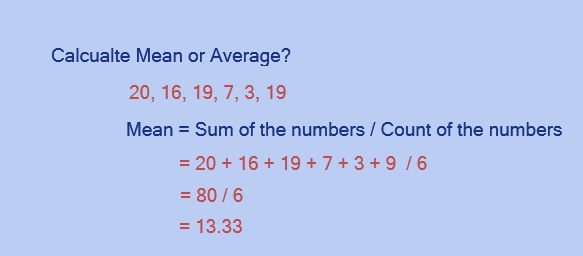
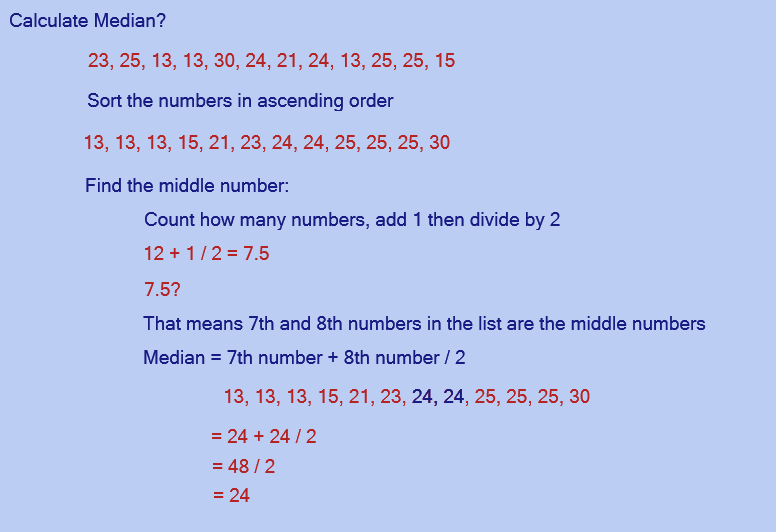
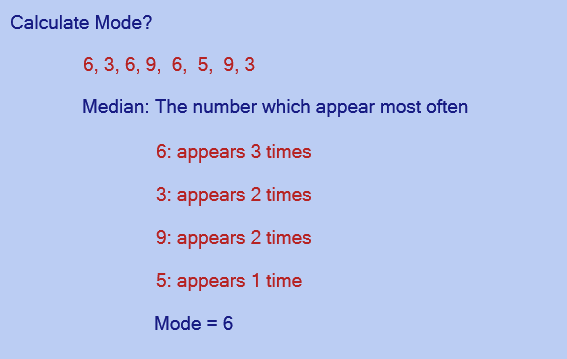
**Measure of Central Tendency:** Mean, Median, Mode

Mean or Average: 

Median: The Median is the ***"middle"*** of a sorted list of numbers.

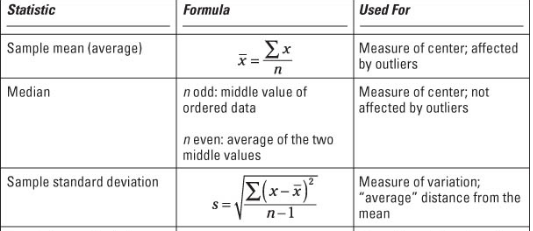


Mode: The number which appears most often in a set of numbers.



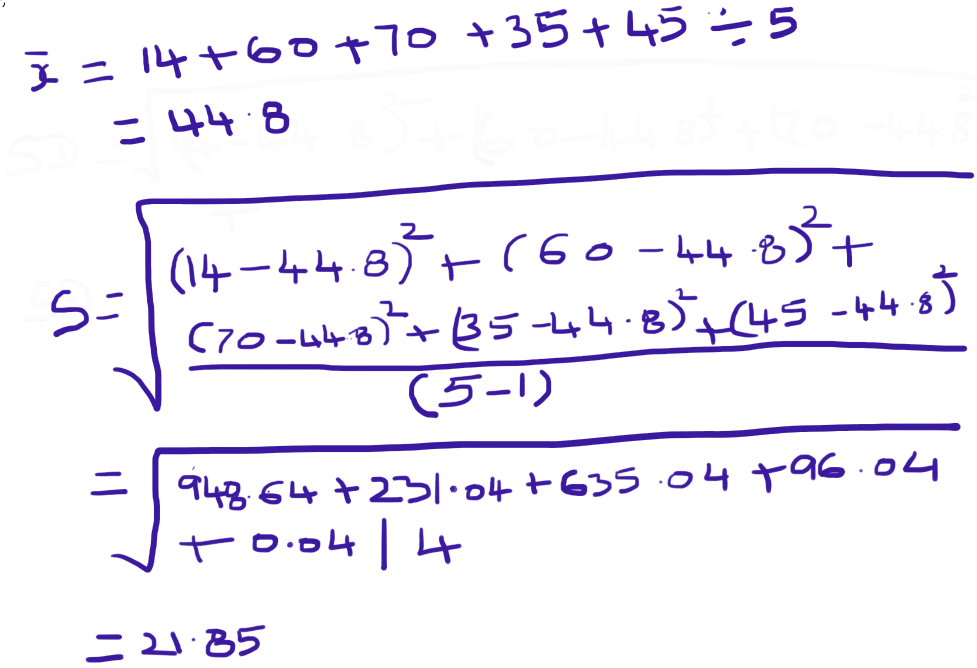
**Equations:**

Mean, Median and Standard Deviation



Standard Deviation:

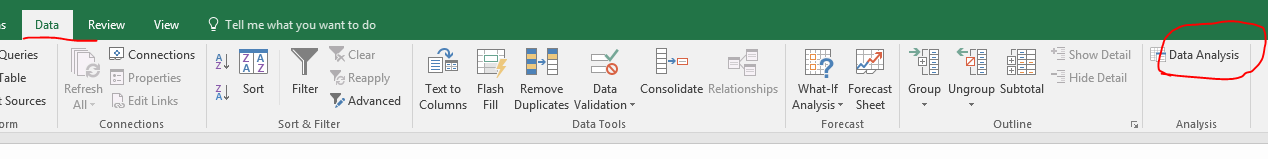
Example: 14, 60, 70, 35, 45

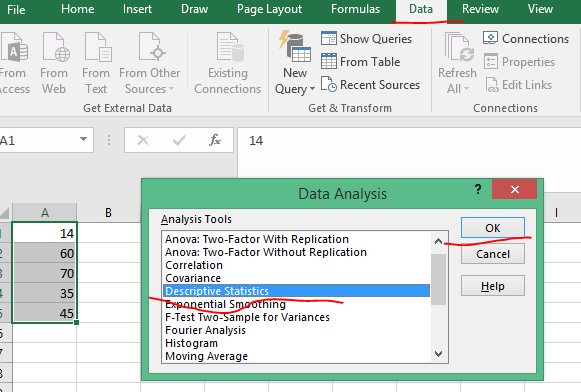


**Summary Statistics using Excel:**

Instead of calculating manually like above, we can do this in Excel. Here is a screen shot.

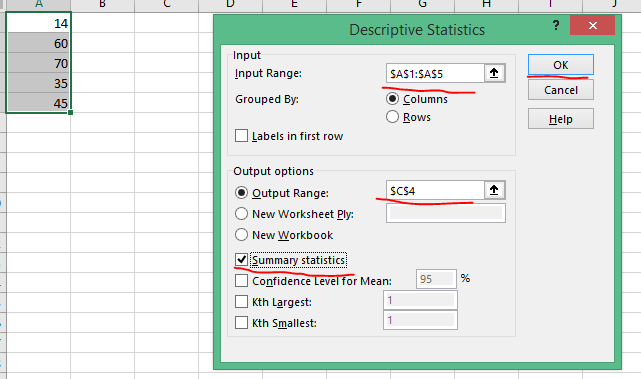
1. Open Excel
2. Enter the Data – 14 60 70 35 45
3. Click on ‘Data’ in the menu
4. Click on ‘Data Analysis’ in the menu (This option is all the way to the right)



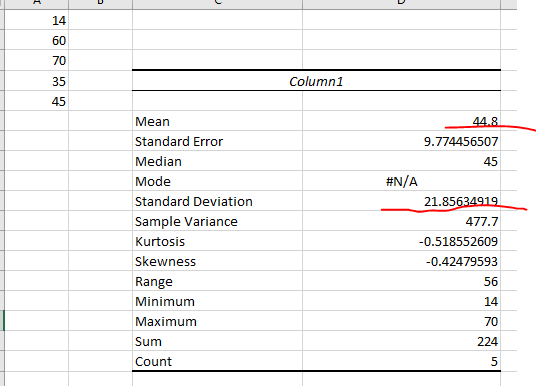


1. Click Ok
2. Select
   1. Input Range
   2. Output Range

Click Ok



7.



The Mean and Standard Deviation, we calculated early are matching.

**IMPORTANT**

Please try to use the Excel to display ‘Summary Statistics’ few times using different data sets, because we need this in the later lessons.

A **percentile** (or a **centile**) is indicating the value below which a given [percentage](https://en.wikipedia.org/wiki/Percentage) of observations in a group of observations fall. For example, the 20th percentile is the value (or score) below which 20% of the observations may be found.

For example, if a score is *at* the 86th percentile, where 86 is the percentile rank, it is equal to the value below which 86% of the observations may be found. The 25th percentile is also known as the first [quartile](https://en.wikipedia.org/wiki/Quartile) (*Q*1), the 50th percentile as the [median](https://en.wikipedia.org/wiki/Median) or second quartile (*Q*2), and the 75th percentile as the third quartile (*Q*3).