Some Definition:

**Standard Deviation:**

In [statistics](https://en.wikipedia.org/wiki/Statistics), the **standard deviation** is a measure of the amount of variation or [dispersion](https://en.wikipedia.org/wiki/Statistical_dispersion) of a set of values. A low standard [deviation](https://en.wikipedia.org/wiki/Deviation_(statistics)) indicates that the values tend to be close to the [mean](https://en.wikipedia.org/wiki/Mean) (also called the [expected value](https://en.wikipedia.org/wiki/Expected_value)) of the set, while a high standard deviation indicates that the values are spread out over a wider range.

**Quartile:**

In [statistics](https://en.wikipedia.org/wiki/Statistics), a quartile is a type of [quantile](https://en.wikipedia.org/wiki/Quantile) which divides the number of data points into four parts, or *quarters*, of more-or-less equal size. The data must be ordered from smallest to largest to compute quartiles; as such, quartiles are a form of [order statistic](https://en.wikipedia.org/wiki/Order_statistic). The three main quartiles are as follows:

* The first quartile (*Q*1) is defined as the middle number between the smallest number ([minimum](https://en.wikipedia.org/wiki/Sample_minimum)) and the [median](https://en.wikipedia.org/wiki/Median) of the data set. It is also known as the *lower* quartile, as 25% of the data is below this point.
* The second quartile (*Q*2) is the median of a data set; thus 50% of the data lies below this point.
* The third quartile (*Q*3) is the middle value between the median and the highest value ([maximum](https://en.wikipedia.org/wiki/Sample_maximum_and_minimum)) of the data set. It is known as the *upper* quartile, as 75% of the data lies below this point.

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| **Symbol** | **Names** | **Definition** |
| ***Q*1** | * **first quartile** * **lower quartile** * **25th**[**percentile**](https://en.wikipedia.org/wiki/Percentile) | splits off the lowest 25% of data from the highest 75% |
| ***Q*2** | * **second quartile** * [**median**](https://en.wikipedia.org/wiki/Median) * **50th percentile** | cuts data set in half |
| ***Q*3** | * **third quartile** * **upper quartile** * **75th percentile** | splits off the highest 25% of data from the lowest 75% |

Deciles:

In [descriptive statistics](https://en.wikipedia.org/wiki/Descriptive_statistics), a **decile** is any of the nine values that divide the sorted data into ten equal parts, so that each part represents 1/10 of the sample or population. A decile is one possible form of a [quantile](https://en.wikipedia.org/wiki/Quantile); others include the [quartile](https://en.wikipedia.org/wiki/Quartile) and [percentile](https://en.wikipedia.org/wiki/Percentile).

A decile rank arranges the data in order from lowest to highest and is done on a scale of one to ten where each successive number corresponds to an increase of 10 percentage points.