## Percentile

**Definition 1:** A **Percentile** is a measure that tells us what percent of the total frequency scored **at or below that measure**. A **percentile rank** is the percentage of scores that fall **at or below** a given score.

**Definition 2:** A **Percentile** is a measure that tells us what percent of the total frequency scored **strictly below that measure**. A **percentile rank** is the percentage of scores that fall **below** a given score.

**Formula:**
To find the percentile rank of a score, \( x \), out of a set of \( n \) scores, where \( x \) is included:

\[
PR = \left( \frac{B + 0.5E}{n} \right) \cdot 100
\]

Where

- \( PR \) = Percentile Rank
- \( B \) = number of scores below \( x \)
- \( E \) = number of scores equal to \( x \)
- \( n \) = number of scores

**Formula:**
To find the percentile rank of a score, \( x \), out of a set of \( n \) scores, where \( x \) is not included:

\[
PR = \frac{B}{n} \cdot 100
\]

Where

- \( PR \) = Percentile Rank
- \( B \) = number of scores below \( x \)
- \( n \) = number of scores

### Keep in mind:
1. There is no universally accepted/agreed definition of percentile.
2. Percentile ranks are usually written to the nearest whole percent.
3. Data is sorted on ascending order that is from lowest to highest.