

## 1.5 IQR Rule:

The interquartile range (IQR) is calculated using the formula

$$\text{IQR} = Q3 - Q1$$

where Q1 is the first quartile (25th percentile), and Q3 is the third quartile (75th percentile).

The IQR method of outlier detection is a method that dictates that any data point in a boxplot that's more than 1.5 IQR points below the first quartile data or more than 1.5 IQR points above the third quartile data is considered an outlier.

Why Multiply 1.5 in IQR Outlier Detection?

The interquartile (IQR) method of outlier detection uses 1.5 as its scale to detect outliers because it most closely follows Gaussian distribution. As a result, the method dictates that any data point that's 1.5 points below the lower bound quartile or above the upper bound quartile is an outlier.