

IQR 1.5 rule

1. The **1.5IQR Rule** is a **statistical method** used for identifying **outliers** in a dataset.
2. An **outlier** is any unusual data point in a dataset.
3. A **quartile** is a **statistical measure** that divides a dataset into 4 parts each containing 25% of the data found in the dataset.
4. **Below the lower bound** or **Above the upper bound** is considered an **outlier**.

$$\text{IQR DAY } Q3-Q1 = 82.5-56=26.5$$

$$\text{IQR NIGHT } Q3-Q1 = 89-78=11$$

Outliers

Day

$$\text{Lesser range } Q1-1.5 * \text{IQR}=56-1.5*26.5=16.5$$

$$\text{Greater range } Q3+1.5*\text{IQR}=82.5+1.5*26.5=122.25$$

$$32 > 16.5 \text{ NO Lesser range}$$

$$99 < 122.25 \text{ No Greater range}$$

Night

$$\text{Lesser range } Q1-1.5*\text{IQR}=78-1.5*11=61.5$$

$$\text{Greater range } Q3+1.5-\text{IQR}=89+1.5*11=105.5$$

$$25.5 < 61.5 \text{ outlier}$$

$$98 > 105.5 \text{ no greater range}$$

The value 25.5 is an outlier if falls below the lesser range

A. The IQR for the day class is larger, indicating greater spread in the middle 50% of the data compared to the night class

B. outlier

day no outliers

night 25.5 is an outlier