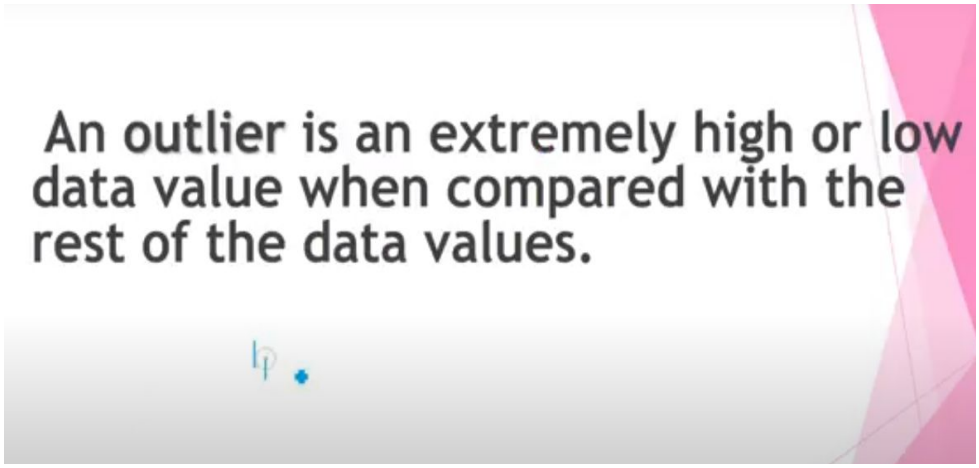
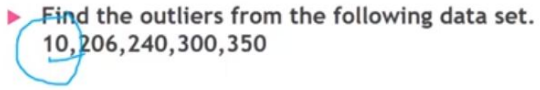


10,20,30,40,500



10,206,240,300,350

A data value less than $Q_1 - 1.5(IQR)$ or greater than $Q_3 + 1.5(IQR)$ can be considered an outlier.

Steps to find outliers

- Arrange the data in order from lowest to highest and find Q_1 and Q_3.
- Find the interquartile range $Q_3 - Q_1$.
- Multiply IQR by 1.5.
- Subtract step 3 from Q_1 and add in Q_3.
- Check the data set for any data value that is smaller than $Q_1 - 1.5(IQR)$ or larger than $Q_3 + 1.5(IQR)$.

7

-22.5 ==>Q1-1.5*IQR > dataset

68>Q3+1.5*IQR ==>65.5 ==>true

68 ==>outlier

Example; find the outliers from the following data set.

10,11,15,25,35,30,7,68

1.Arrange the data in order from lowest to highest and find Q1 and Q3.

7, 10, 11, 15 | 25, 30, 35, 68

$Q_1 = 10.5$ $Q_3 = 32.5$

2.Find the interquartile range $Q_3 - Q_1$.

$= 32.5 - 10.5$

$= 22$

3.Multiply IQR by 1.5

$=33$

4.Subtract IQR from Q_1 and add in Q_3

$10.5 - 33 = -22.5$

$32.5 + 33 = 65.5$

5.Check the data set for any data value that is smaller than $Q_1 - 1.5(IQR)$ or larger than $Q_3 + 1.5(IQR)$.

68 is the outlier