



Spread of Data

Analytics Vidhya
Learn everything about analytics

In the previous video

- How median is calculated
- What is a quartile?



In this video

- Understanding spread of data
- Calculating and understanding the range of data



Spread of data

Spread of the data describes how similar or varied are the set of observations.



Range

- The difference between the smallest and largest values
- The bigger the range the more spread out is the data



Range or IQR

Range

- Susceptible to outliers
- $\text{Range} = \text{Max} - \text{Min}$

MIN

0, 12, 20, 31, 74, 61, 89, 99, 100, 9700

MAX

- $\text{Range} = 9700 - 0 = 9700$
- Takes Entire data set into consideration

IQR

- Robust to outliers
- $\text{IQR} = Q3 - Q1$

0, 12, 20, 31, 74, 61, 89, 99, 100, 9700

Q1

Q3

- $\text{IQR} = 99 - 20 = 79$
- Takes 50% of data into consideration