



MATHEMATICS PRESENTATION-1

TOPIC : MEASUREMENT OF CENTRAL TENDENCY

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MEAN

Mean : Simply to do average of data values.

Eg: Data set =[1,2,3,4,5]

Formula is Mean = (sum of all the elements / total no. of elements)

Sum = 15, no. of elements = 5

Mean = $15/5 = 3$

Mode

- **Mode** : Data value which occurred for most number of times.
 - Eg : Data set =[1,1,2,3,5,94,47,5,4,8,9,1]
 - The most no. of time occurred element is 1 (i,e 3 times)

Median

- **Median** : Data value which is exactly in the middle of the sorted data set, if there are 2 values, then we go for average of those 2.
 - Eg 1 : Dataset = [6,1,2,3,5,7,4]
 - The element exactly in the middle after sorting it is 4
 - So median =4
- Eg 2: Dataset = [1,2,3,4]
- There are 2 elements in the middle, they are 2,3
- So median is average of those 2 numbers, i.e 2.5
- So median =2.5

STANDARD DEVIATION & VARIANCE

- **Standard Deviation :**
- It is one more statistical term used to measure central tendency.
- The more std. dev is the wider is the values
- The lesser the value of std.dev is the closer the values
- **Variance :**
- Also indicates same as Std.Dev how the values are situated.
- $\text{Variance} = \text{Square of Std. Dev}$