

**Inferential Statistic** : first collect some data(sample data) using some experiments derive conclusion and this is made for some other data which is called Population data.

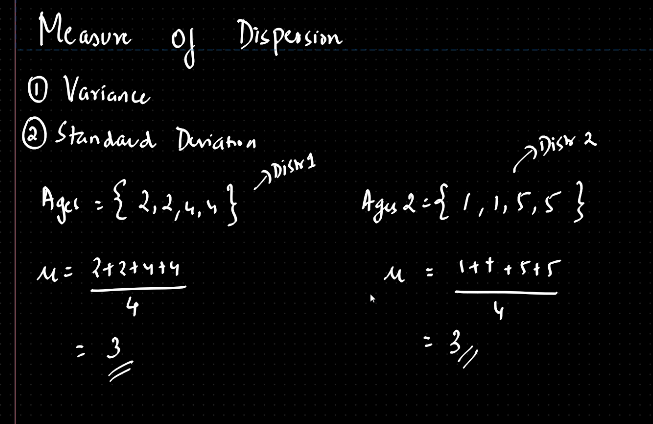
Population (N) And Sample (n)

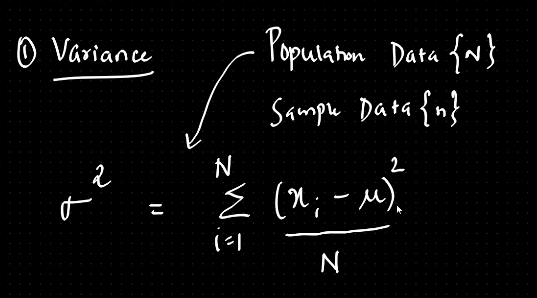
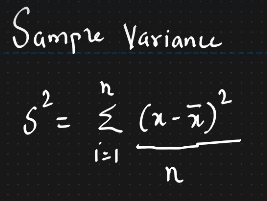
Measure of Central Tendency :

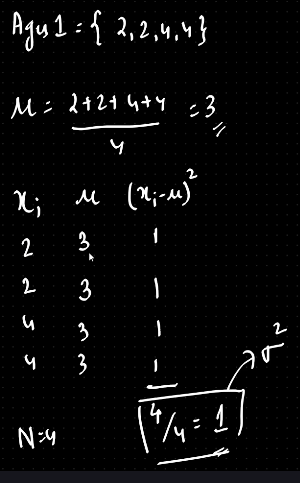
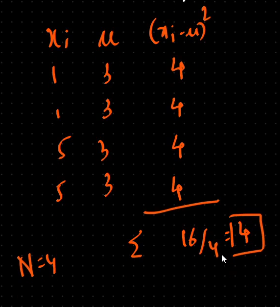
1. Mean
2. Median
3. Mode

Measure of Dispersion :

1. Variance
2. Standard Deviation



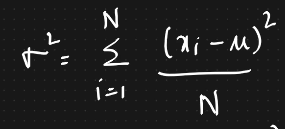
 

* Why we divide sample variance by (n-1) while it is N in the case of Population variance ?
* To overcome unbiased estimation

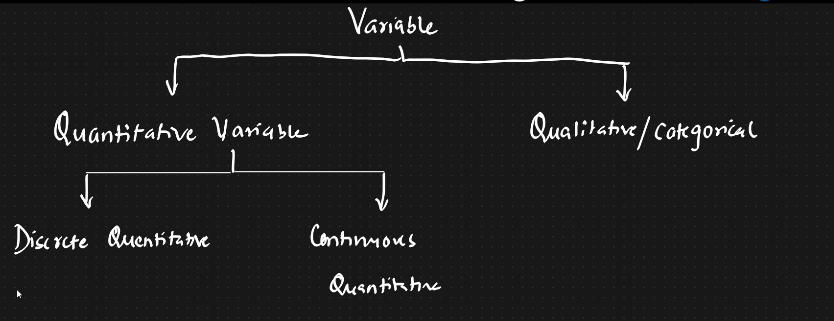
**Standard Deviation**

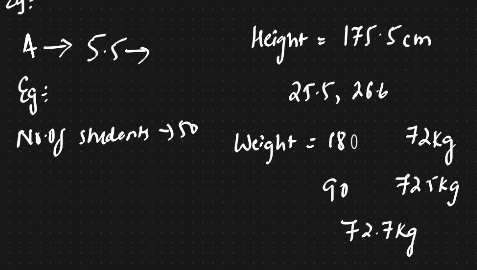
* Square root of variance
* How far a data point is away from the mean

Variable : it is a property that can take up any value

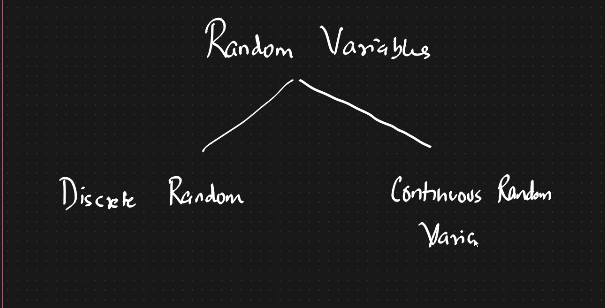
Types of variables

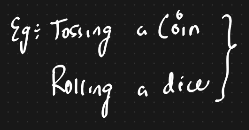
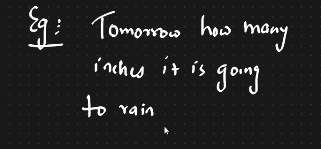


Random Variable :

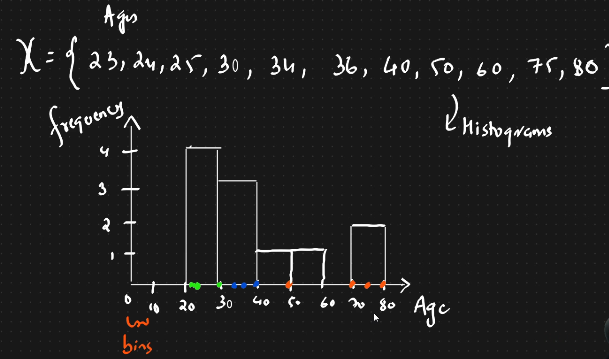
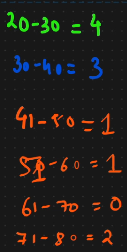
It is a function which define some values through some experiments/process



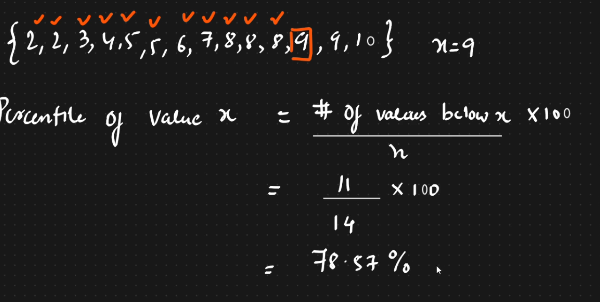
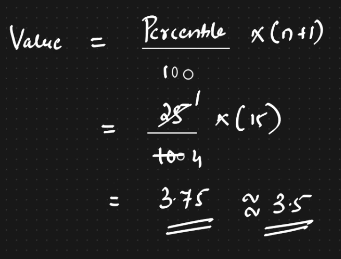
Histograms :

Finding the frequency based on bins

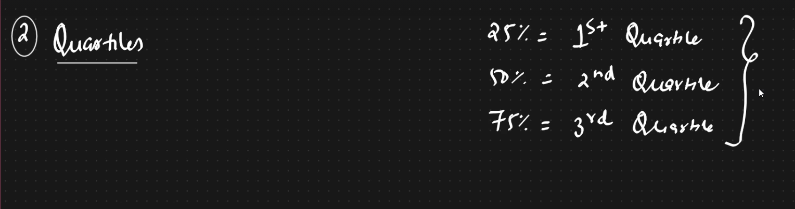
 

Percentile and Quartiles

Percentile : A percentile is a value below which certain percentage of observation lie

Quartiles :



**5 Number Summary**

