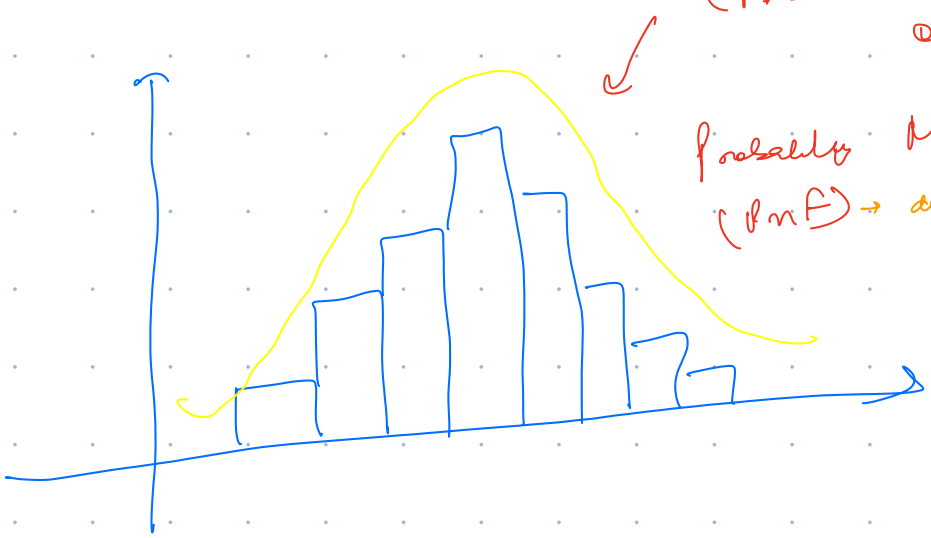
Distribution describes how values are distributed.



Probability Density function (PDF) → continuous variable

or

Probability Mass function (PMF) → discrete variable

Continuous Variable : Use PDF

→ If you're measuring it likely continuous.

→ represent measurable amount that can take on any value within a range.

eg: height, weight, temperature, time.

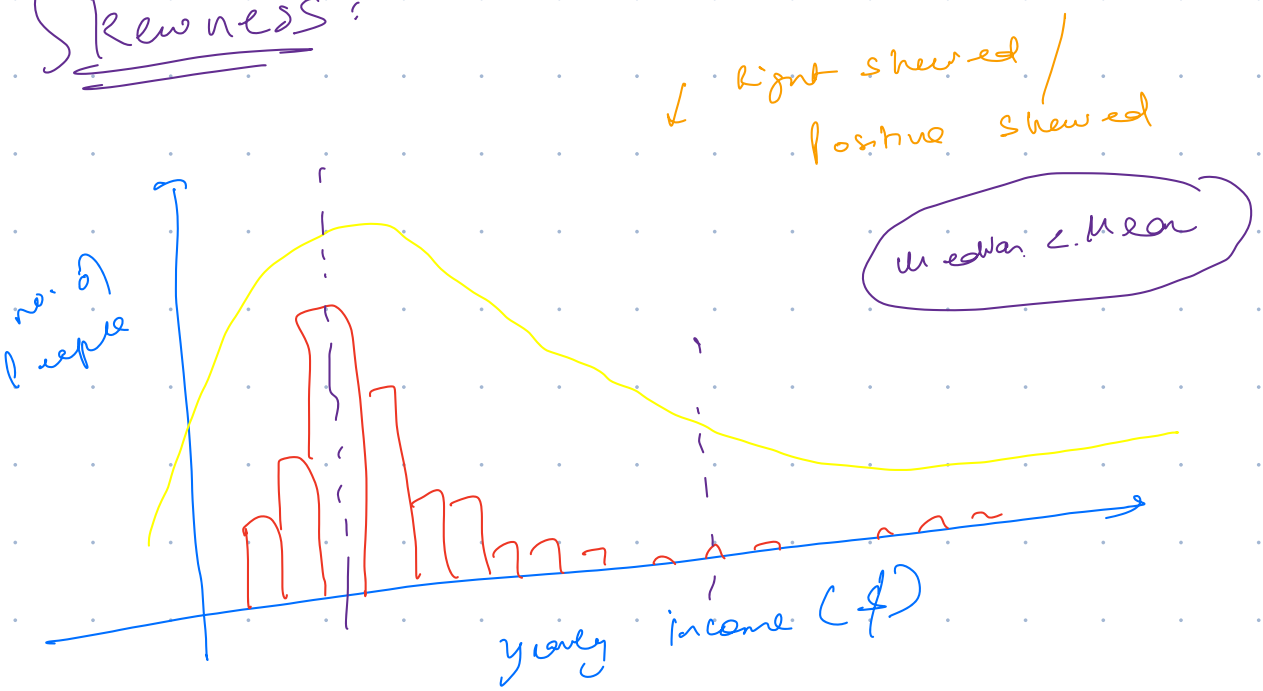
Discrete Variables : Use PMF

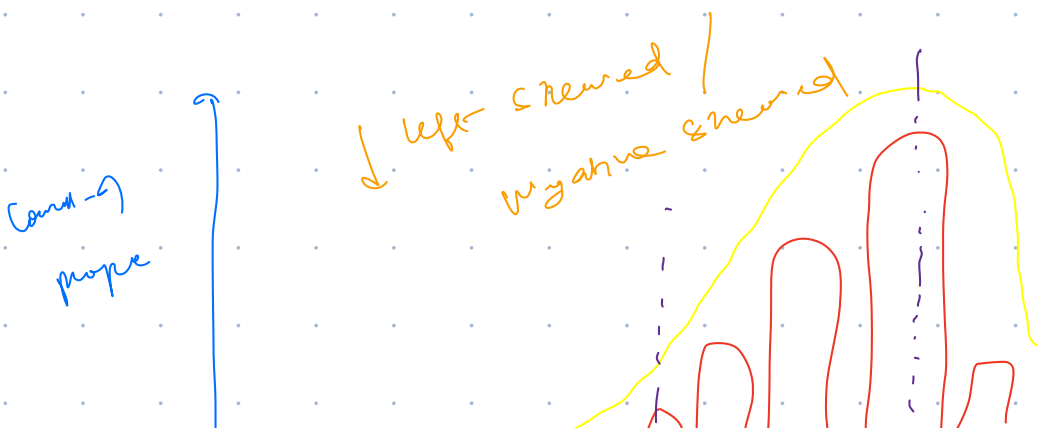
→ If you can count it it likely discrete

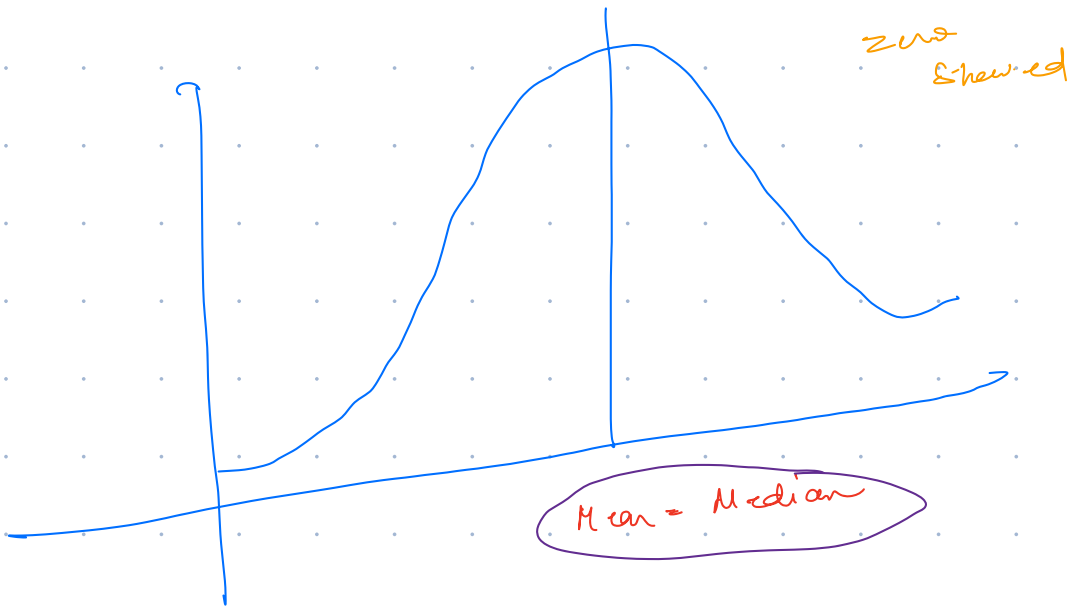
→ can be counted and have distinct values

Eg :- no. of students in a classroom, no. of cars in a parking lot, no. of defective items in a batch.

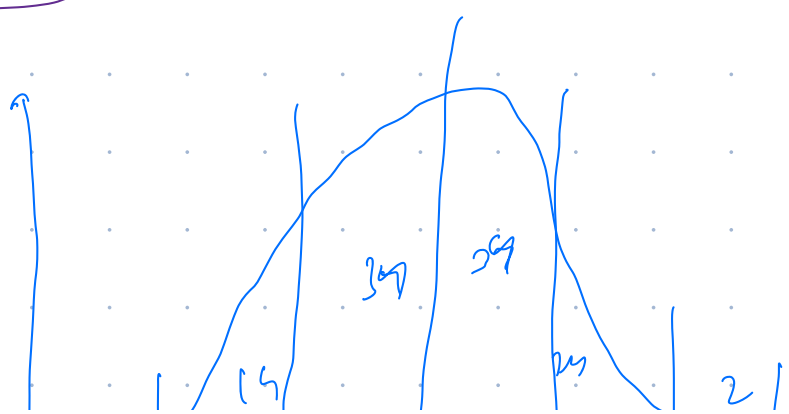
Skewness :

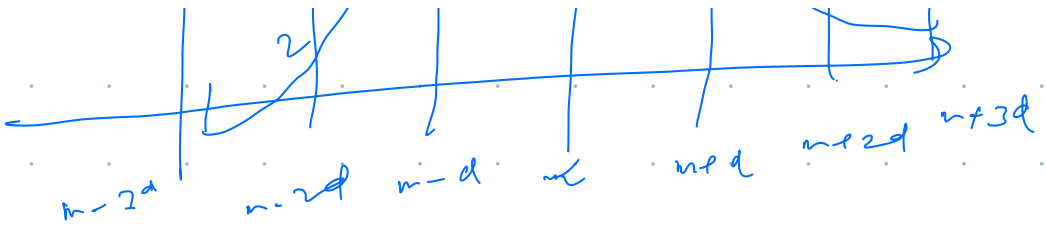






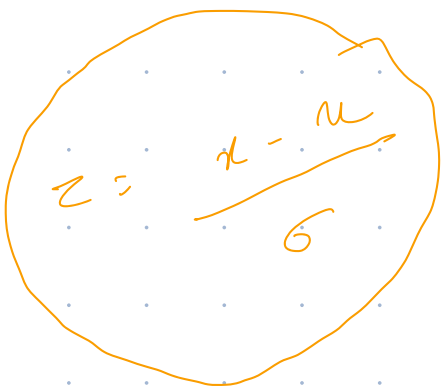
Normal Distribution :





Z-Score :

How many standard deviations away a data point is from the mean.



x - data point value
μ → mean
σ → SD

Standard Normal Distribution (SND) :

It's graph of the z-score of the normal distribution

SND/

mean = 0

SD = 1