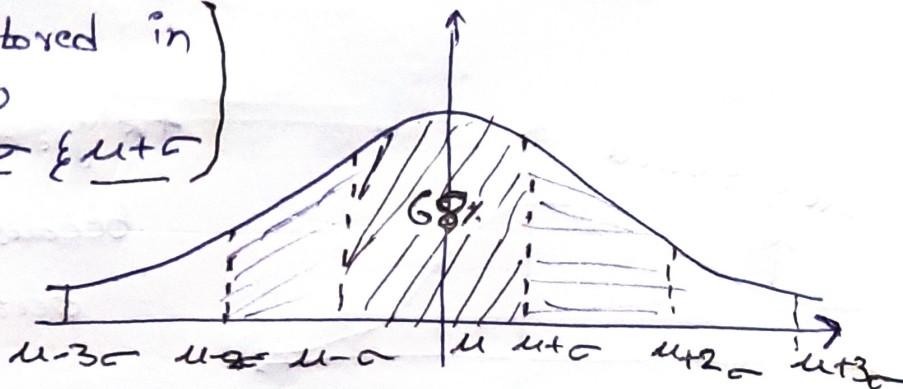# Property of Normal distribution:-

    1. Bell shape Curve

    2. Symmetrical

    3. 68-95-99.7 % rule

68% of → (is stored in blw $\mu - \sigma$ & $\mu + \sigma$)
total data

95% → is stored in
total
data   blw $\mu - 2\sigma$ & $\mu + 2\sigma$

99.7% → is stored in blw $\mu - 3\sigma$ & $\mu + 3\sigma$
total
data

Z-score:- $\left(\frac{x - \mu}{\sigma} = z \right)$
     How many standard deviation away is a point
from the mean
     (OR)
How far the
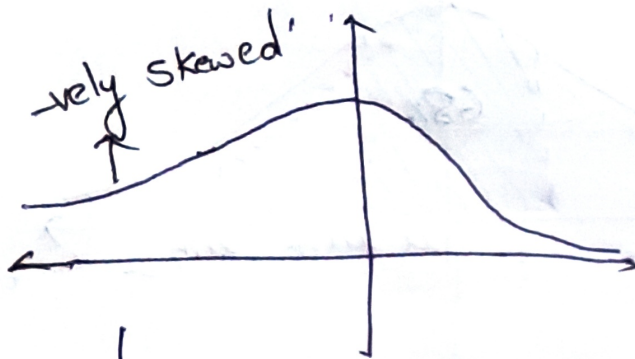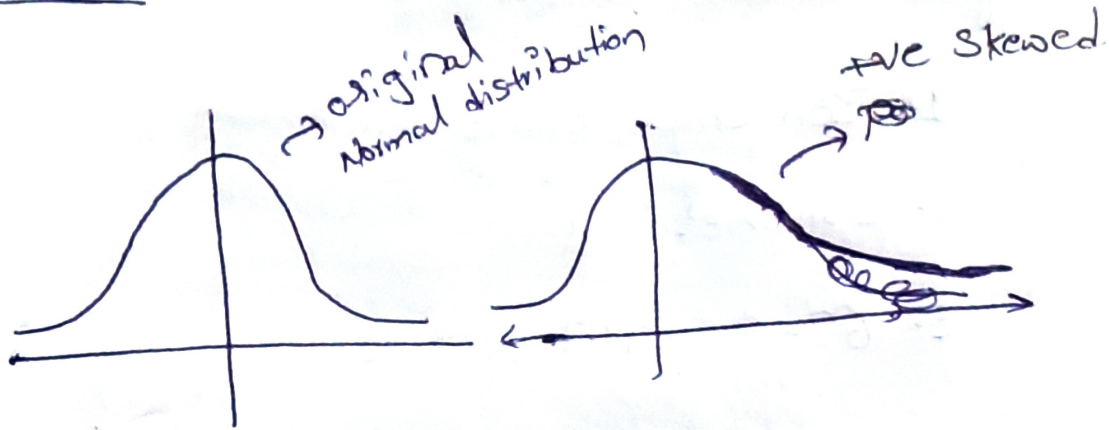   Z Score = -1 ← 4 5 6 → Z-score = 1
point from mean
with respect to Standard deviation.
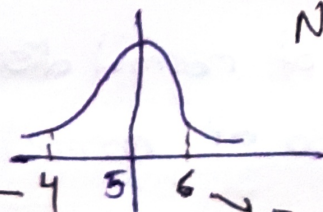
$N(5,1)$
$\sigma^2 = 1 \Rightarrow \sigma = 1$

$z = \frac{4-5}{1} = -1$ $z = \frac{6-5}{1} = 1$

Skewness:-

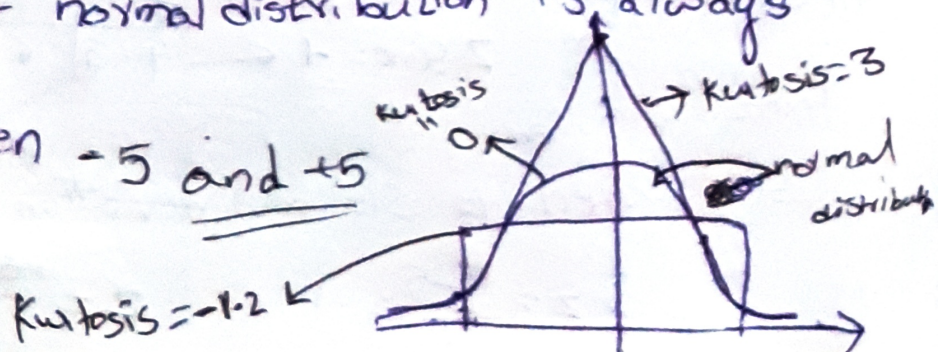→ original Normal distribution

+ve Skewed.

-vely Skewed

+vely & -vely skewed are because of outliers.

This is not logNormal distribution; Here the tail is more probability. In logNormal the tail is very less probability.
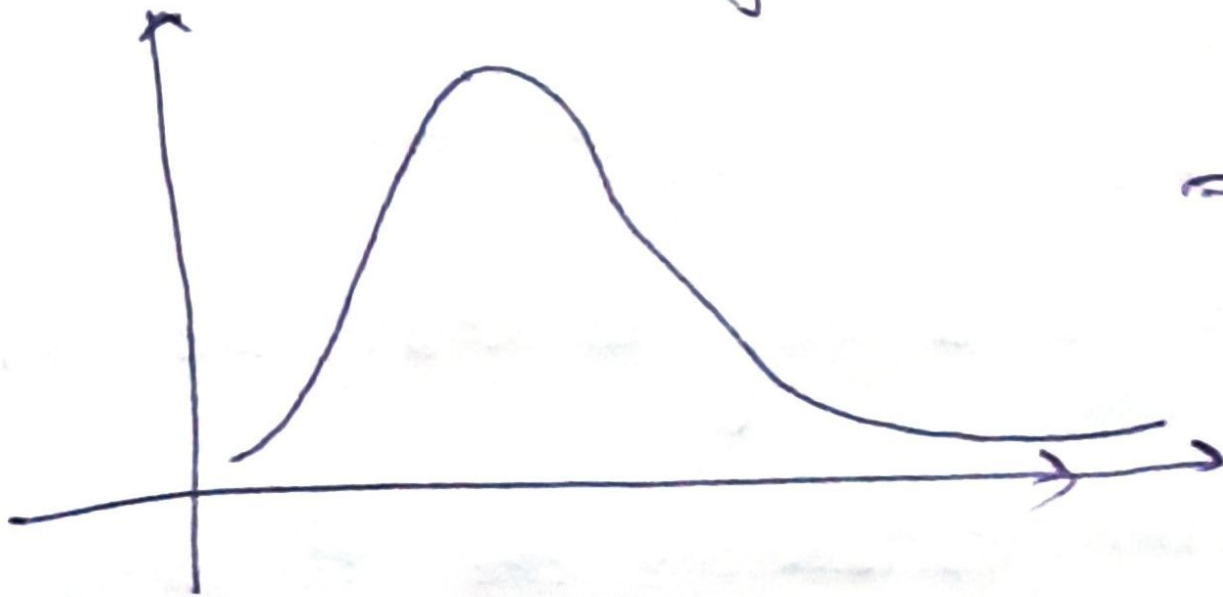
Kurtosis:-

↳ Measure of peakedness

↳ Kurtosis of normal distribution is lies b/w -0.5 & 0.5

↳ Skewness of normal distribution is always lies between -5 and +5

Kurtosis

→ Kurtosis=3

normal distribution

Kurtosis=-1.2

This is lognormal distribution

⇒ we apply
log transformation
to get normal
distribution