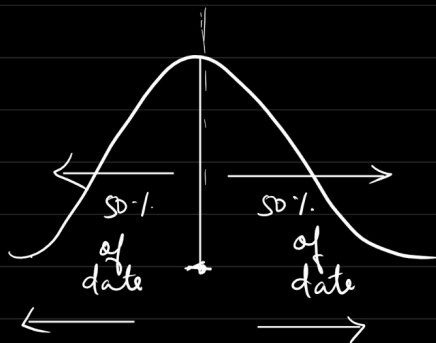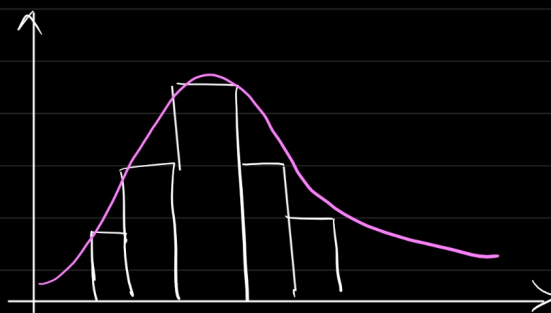# Measures of Symmetricity

→ If anything is exactly towards the left and right.
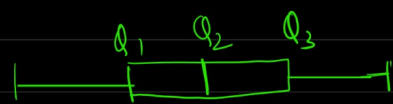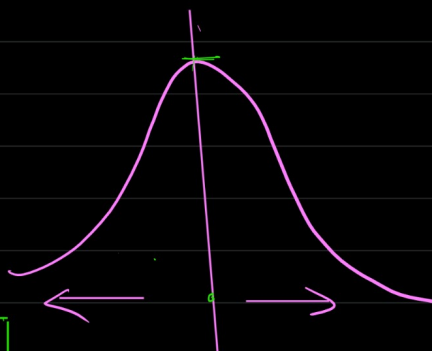


* <u>Skewness</u> ⟶ measure of data symmetry
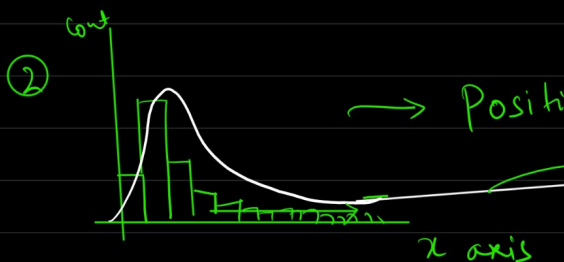
① NO Skewness

Skewness = 0

$$Skewness = \frac{x_i - \mu}{n\,\sigma^3}$$



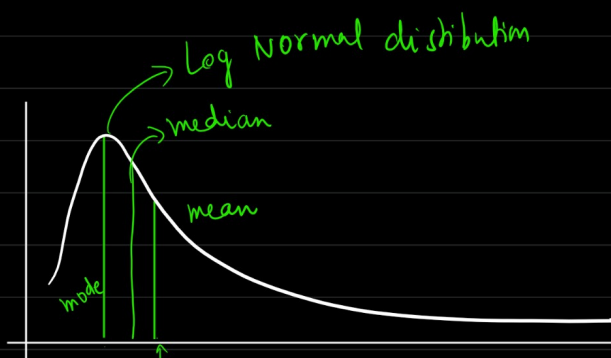$$Q_3 - Q_2 \approx Q_2 - Q_1$$

1, 2, 3, 4, 5

mean = median = mode

② 

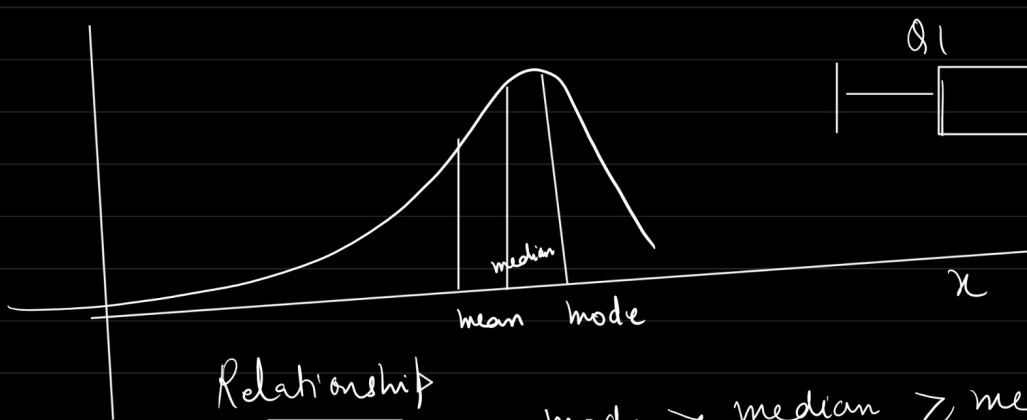count

⟶ Positive Skewed

→ tail is on right side of distribution

x axis

→ Log Normal distribution
→ median
mean
mode

$$Q_3 - Q_2 \geqslant Q_2 - Q_1$$

x

mean ≥ median ≥ mode

③ **Left skewed distribution** | neg Skewed distribution



$$Q_2 - Q_1 > Q_3 - Q_2$$

**Relationship**

mode ≥ median ≥ mean

**Transformation**

— Log transform
— Box - cox transformation
— Exponential tran
— reciprocal "
— Outlier treatment

*