

- REPRESENTATION OF DATA -

Mean & standard deviation :

$$\bar{x} = \frac{\sum x}{n}$$

$$S.D = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

$$= \sqrt{\frac{\sum x^2}{n} - \bar{x}^2}$$

$$\bar{x} = \frac{\sum xf}{\sum f}$$

$$S.D = \sqrt{\frac{\sum (x - \bar{x})^2 f}{\sum f}}$$

$$= \sqrt{\frac{\sum x^2 f}{\sum f} - \bar{x}^2}$$

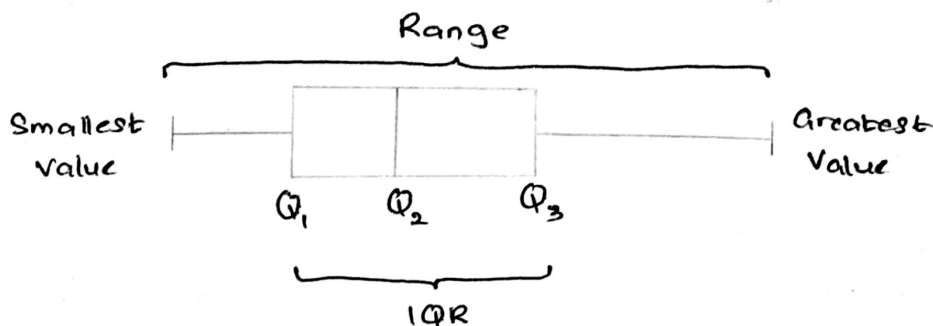
$$\text{mean} = \frac{\sum x + \sum y}{n_1 + n_2}$$

$$S.D = \sqrt{\frac{\sum x^2 + \sum y^2}{n_1 + n_2} - (\text{mean})^2}$$

$$\bar{x} = \frac{\sum (x - a)}{n} + a$$

$$S.D = \sqrt{\frac{\sum (x - a)^2}{n} - \left[\frac{\sum (x - a)}{n} \right]^2}$$

Box & Whisker Plans :



$$\text{Range} = \text{Greatest value} - \text{Smallest value}$$

$$IQR = Q_3 - Q_1$$