Assumed mean or Short-cut method

$$\alpha = A + EFd$$
 $d = \alpha - A$
 $A = ASSY$

$$d = x - A$$

Step deviation method >

$$\overline{x} = A + \left(\frac{2Fd}{N}\right) \times \hat{i} \qquad d = \frac{x - A}{\hat{i}}$$

$$d = \frac{x - A}{i}$$

A= Assumed Mean

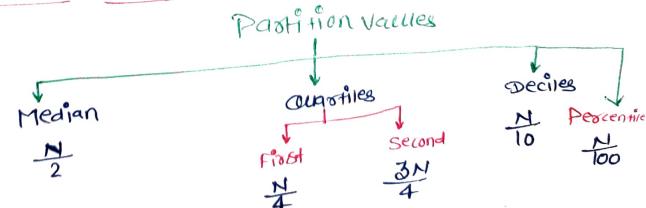
Median

For indivisual series of data is odd

IF Number 95

$$M = \left(\frac{n}{2}\right)^{th}$$
 term $+\left(\frac{n}{2}+1\right)^{th}$ term

Continuous series :-



Find Median of both

$$M = L + \left(\frac{\lambda!}{2} - C \cdot F\right) i$$

L = Lower limit of median class

IN FE Frequency of median class

CF = cumulative forguency of class preceding

(= Class interval

Mode

Maximum No. of repetation.

Mode = 3 Median -2 Mean

Moder of continuous senes:

L = Jower class

1 = Class interval

For Preceding focusency of model class

fi= Frequency of model class

F2 = Succeeding Frequency of model class

Range = Highest Value - Lowest Value

Co-efficient of Range = H.V-L.V

Ouastile deviation = <u>03-01</u>

CO-efficient of $O \cdot D = 03-0$, 03+01

Mean deviation = $\frac{1}{n} \leq |\alpha - \overline{\alpha}|$

Discrete and continuous senes

 $= \prod_{\alpha} \mathcal{E}(\mathbf{t}(\alpha - \underline{\alpha}))$

S. $D = 6 = \int \frac{1}{n} \sum (\alpha - \overline{\alpha})^2$ for individual Series

5.D-OF OBCRETE & confinuous series

$$= \int_{N}^{\infty} \frac{E(F(x-\overline{x})^{2})}{E(F(x-\overline{x})^{2})}$$

$$= \int_{N}^{\infty} \frac{EFd^{2}}{N} - \left[\frac{EFd}{N}\right]^{2} x^{2}$$

$$d = x - A$$

Variance = 62

Correlation coephicient or Karl's Pearson's

$$\mathcal{E} = \frac{1}{n} \mathcal{E} \left((x - \overline{x}) (y - \overline{y}) \right)^{2}$$

$$\int_{\overline{n}} \mathcal{E} \left((x - \overline{x})^{2} - \int_{\overline{n}} \mathcal{E} (y - \overline{y})^{2} \right)^{2}$$

$$\overline{S} = \underbrace{COU(\alpha, \beta)}_{6\alpha \cdot 6\beta}$$

$$\overline{A} = \underbrace{EF(\alpha)}_{EF}$$

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S.E =
$$1-\sigma^2$$
 Standard error σ σ Co-ordination

Rank Co-ordination: or Spearman Rank Correlation:
$$-1$$
 $R = 1 - 6 \times d^2$ $n(n^2-1)$ $d=R_1-R_2$

$$R = 1 - 6 \left[2d^2 + \frac{m_1(m_1^2 - 1)}{12} + \frac{m_2(m_2^2 - 1)}{12} + \cdots \right]$$

$$\frac{1 - 6 \left[2d^2 + \frac{m_1(m_1^2 - 1)}{12} + \frac{m_2(m_2^2 - 1)}{12} + \cdots \right]}{n(n^2 - 1)}$$

Regression:

$$= \frac{\Sigma(\alpha - \overline{\alpha})(3 - \overline{\beta})}{\Sigma(3 - \overline{\beta})^2}$$

$$pAx = con(x/A) = 2.6A$$

$$= \sum (\alpha - \underline{\alpha}) (4 - \underline{A})$$

Regression line & on y

x-= = bxy(x-7)

Regression line you a