Measures of Dispersion - (4).

Coefficient of Range.

Range is an absolute measure of dispersion. As such it cannot be used for comparisions to make it comparable we find its coefficient. It is the ratio between (i) the difference between the highest and lowest value of the series and (ii) The sum of the lowest and highest value of the series. It is calculated as under:

Formula.

Coefficient of Range

$$CR. = \frac{H-L}{H+L}$$

Here, CR = Coefficient of range.

H : Highest value in the series;

L : lowest value in the series.

Calculation of Range and Coefficient of Range for Different Types of Statistical Series.

Let us understand through different illustrations ## how range and its coefficient are calculated for different types of statistical series.

(1) Individual Series and Range.

In the individual series, range is calculated as the differende ~~the range~~ between the highest and lowest value of the series.

Illustration.

Monthly wages of workers of a factory are stated below. find out the rang and the coefficient of range.

wages ₹	50	60	80	90	200	225	300	340	360	400	415	425	450	500

Soln -

Range $R = H - L$.

Here $H = 500$, $L = 50$

$R = 500 - 50 = 450$ Ans.

Coefficient of Range (CR) $= \frac{H-L}{H+L}$

$= \frac{500-50}{500+50} = \frac{450}{550} = 0.82$ Ans