

Mode - (8)

* Calculation of Mode through Arithmetic Mean and Median.

- One can calculate mode of a series through mean and median of that series. The formula is:

Formula.

$$Z = 3M - 2\bar{X}$$

Here $Z = \text{Mode}$, $M = \text{Median}$
 $\bar{X} = \text{Mean}$.

Here it may be noted that in the case of normal distributions, or symmetrical distributions, mean, median, and mode coincide with each other. Thus, this formula is most useful in this case. However, in asymmetrical distribution the formula may also be used for the calculation of mode.

Illustration

Calculate mode of a series, the mean and median value of which are 16 cm and 20 cm respectively.

Soln

$$\text{Mode} = 3M - 2\bar{x}$$

$$Z = 3M - 2\bar{x}$$

Here $M = 20 \text{ cm}$ $\bar{x} = 16 \text{ cm}$.

$$Z = 3 \times 20 - 2 \times 16$$

$$= 60 - 32$$

$$= 28.$$

Thus $\text{Mode}(Z) = 28 \text{ cm}$