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Measures of central tendencies.

It includes,

Mean.

Median,

Mode.

Mean :- Arithmetic mean usually referred to as Mean, is the average of all obse- -rvations values. The observations are denoted by x, values showing $x_1, x_2, x_3 \ldots \ldots x_n$, then the mean $\bar{x}$ (pronounced as x bar) for a number of observations is calculated by summing up the observations & dividing the sum by total number of observations (n).

Thus

$$\bar{x} = \frac{x_1 + x_2 + x_3 + \ldots \ldots x_n}{n}$$

for convenience, all those summed up values $(x_1 + x_2 + x_3 + \ldots \ldots x_n)$ can be represen- -ted as Σx (= summations of all x-values where Σ (pronounced as sigma) stands for summations.

then the formula for calculating mean is written as;

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

For example:

If the following data represent the number of flowers per plant, 5, 6, 7, 8, 4, 6, 8, 7, 6, 5, & 4 then mean calculated by summing up all these values, and dividing that summed up value by 10 (as 10 represent n: no.f. plants taken in to consideration.

Then

$$\bar{X} = \frac{\Sigma x}{n}$$

$$\Sigma x = (5 + 6 + 7 + 8 + 4 + 8 + 7 + 6 + 5 + 4) = 60$$

$$n = 10$$

$$\bar{X} = \frac{\cancel{60}^{6}}{\cancel{10}} = 6 \quad \underline{\text{Ans}}$$