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Statistics.

* Mean deviation, $\delta = \frac{1}{n}\sum_{i=1}^{n} |x_i - \bar{x}|$

* Standard deviation, $\sigma = \sqrt{\frac{1}{n}\sum_{i=1}^{n} (x_i - \bar{x})^2}$.

* Variance, $\sigma^2 = \frac{1}{n}\sum_{i=1}^{n} (x_i - \bar{x})^2$.

* Imp. relation- $(\bar{x})^2 + (\sigma)^2 = \frac{\sum x_i^2}{N}$.

* Change of origin & scale.

Observations	Mean	Median	Mode	δ	σ	σ^2
$x_1, x_2, \ldots, x_n$	$\bar{x}$	x_M	x_m	δ	σ	σ^2
$x_1+b, \ldots, x_n+b$	$\bar{x}+b$	x_M+b	x_m+b	δ	σ	σ^2
$ax_1, \ldots, ax_n$	$a\bar{x}$	ax_M	ax_m	$\lvert a\rvert\delta$	$\lvert a\rvert\sigma$	$a^2\sigma^2$
$ax_1+b, \ldots, ax_n+b$	$a\bar{x}+b$	ax_M+b	ax_m+b	$\lvert a\rvert\delta$	$\lvert a\rvert\sigma$	$a^2\sigma^2$.