Mean, variance and standard deviation formulas

Quantity	Formula	Excel
Mean	$\Sigma x \div n$	AVERAGE
Sample variance	$\Sigma(x - \bar{x})^2 \div (n - 1)$	VAR.S
Population variance	$\Sigma(x - \mu)^2 \div N$	VAR.P
Sample SD	$\sqrt{}$(sample variance)	STDEV.S
Population SD	$\sqrt{}$(population variance)	STDEV.P
z-score	(x − mean) ÷ SD	STANDARDIZE
Standard error	$s \div \sqrt{n}$	STDEV.S(…)/SQRT(COUNT(…))
Coefficient of variation	SD ÷ mean × 100%	—

Notes

Theshopfy.com · Personal and classroom use — print and copy for your own students; do not resell or post publicly.