How can I calculate the confidence interval for a normal distribution in Google Sheets?

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June 30, 2024

The process of calculating the confidence interval for a normal distribution in Google Sheets involves using the formula "=CONFIDENCE(alpha,standard_deviation,sample_size)" and inputting the desired confidence level, standard deviation, and sample size to determine the range of values within which the true population mean is likely to fall. This feature in Google Sheets allows for efficient and accurate estimation of the population mean for normally distributed data.

CONFIDENCE.NORM

Calculates the width of half the confidence interval for a normal distribution.

Sample Usage

`CONFIDENCE.NORM(0.05,1.6,250)`

`CONFIDENCE.NORM(A2,A3,A4)`

Syntax

`CONFIDENCE.NORM(alpha, standard_deviation, pop_size)`

`alpha` - One minus the desired confidence level. E.g. `0.1` for `0.9`, or 90%, confidence.

`standard_deviation` - The standard deviation of the population.

`pop_size` - The size of the population.

Notes

`CONFIDENCE.NORM` calculates the width of half the confidence interval such that a value picked at random from the data set has `1-alpha` probability of lying within the mean plus or minus the result of `CONFIDENCE.NORM`.You can use `CONFIDENCE` or `CONFIDENCE.NORM` to perform this function.

See Also

`ZTEST`: Returns the one-tailed P-value of a Z-test with standard distribution.

Examples