How can I use the GAUSS function in Google Sheets to calculate the Gaussian distribution of a set of data?

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June 30, 2024

The GAUSS function in Google Sheets allows users to easily calculate the Gaussian distribution of a set of data. This function uses a statistical formula to determine the probability distribution of a given data set. By inputting the necessary parameters, such as the mean and standard deviation, users can quickly and accurately generate the Gaussian distribution curve for their data. This tool is particularly useful for analyzing and understanding the distribution of a set of data, providing valuable insights for statistical analysis and decision making. With the GAUSS function, users can efficiently and effectively calculate the Gaussian distribution of their data in Google Sheets.

GAUSS function

The GAUSS function returns the probability that a random variable, drawn from a normal distribution, will be between the mean and z standard deviations above (or below) the mean. A normal distribution is also commonly known as a Gaussian distribution, from which this function gets its name.

Parts of a GAUSS formula

`GAUSS(z)`

Part	Description	Notes
`z`	The number of standard deviations from the mean.	The parameter z represents how far away from the mean a random variable might fall.A normal distribution is characterized by a mean (μ) and a standard deviation (*z* * σ).

Sample formulas

`GAUSS(1)`

`GAUSS(B2)`

Notes

A negative z value causes GAUSS(z) to return a negative number.When z uses the value in another cell (e.g. "GAUSS(B2)"), the GAUSS function returns 0 if there's no data in the cell.Calling GAUSS(z) asks the question, "what's the probability that a random number will be between μ and the standard deviation *z* * σ?"

Examples

	A	B	C

1	Function	Result	Comment
2	=GAUSS(1)	0.3413447461	Probability that a variable falls between the mean and 1 standard deviation above the mean.
3	=GAUSS(-1)	-0.3413447461	Probability that a variable falls between the mean and 1 standard deviation below the mean. Note that the result is negative.
4	=2*GAUSS(1)	0.6826894921	Probability that a variable falls within 1 standard deviation of the mean.

Related function

NORMDIST: The NORMDIST function returns the value of the normal distribution function (or normal cumulative distribution function) for a specified value, mean, and standard deviation.