

# How can I use the NORMDIST function in Google Sheets?

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## RECOMMENDED CITATION

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The NORMDIST function in Google Sheets is a statistical formula that calculates the normal distribution or the probability density function for a given set of data. It can be used to determine the likelihood of a random variable falling within a specific range of values. To use this function, simply provide the required parameters such as the input value, mean, and standard deviation, and the function will return the corresponding probability. This can be useful for analyzing data sets and making informed decisions. Additionally, the NORMDIST function can be combined with other functions in Google Sheets to further analyze and manipulate data. It is a powerful tool for performing statistical analysis and gaining insights from data.

## 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.

### Sample Usage

```
NORMDIST(2.4,1,4,FALSE)
```

```
NORMDIST(A2,A3,A4,TRUE)
```

### Syntax

```
NORMDIST(x, mean, standard_deviation, cumulative)
```

**x** - The input to the normal distribution function.

**mean** - The mean ( $\mu$ ) of the normal distribution function.

**standard\_deviation** - The standard deviation ( $\sigma$ ) of the normal distribution function.

**cumulative** - Whether to use the normal cumulative distribution function rather than the distribution function.

### See Also

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

**WEIBULL**: Returns the value of the Weibull distribution function (or Weibull cumulative distribution function) for a specified shape and scale.

**POISSON**: Returns the value of the Poisson distribution function (or Poisson cumulative distribution function) for a specified value and mean.

**NORMSINV:** Returns the value of the inverse standard normal distribution function for a specified value.

**NORMSDIST:** Returns the value of the standard normal cumulative distribution function for a specified value.

**NORMINV:** Returns the value of the inverse normal distribution function for a specified value, mean, and standard deviation.

**NEGBINOMDIST:** Calculates the probability of drawing a certain number of failures before a certain number of successes given a probability of success in independent trials.

**LOGNORMDIST:** Returns the value of the log-normal cumulative distribution with given mean and standard deviation at a specified value.

**LOGINV:** Returns the value of the inverse log-normal cumulative distribution with given mean and standard deviation at a specified value.

**EXPONDIST:** Returns the value of the exponential distribution function with a specified lambda at a specified value.

**BINOMDIST:** Calculates the probability of drawing a certain number of successes (or a maximum number of successes) in a certain number of tries given a population of a certain size containing a certain number of successes, with replacement of draws.

## Examples