How do I use the LOGNORM.DIST function in Excel?

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The LOGNORM.DIST function in Excel is used to calculate the probability density or cumulative distribution of a lognormal distribution. It takes in four parameters: the value, mean, standard deviation, and cumulative value. By using this function, users can easily determine the likelihood of a given value occurring in a lognormal distribution. This can be helpful in various statistical analyses, such as risk assessment or financial modeling. To use the LOGNORM.DIST function, simply enter the required parameters into the designated cells and the result will be displayed. It is a useful tool for analyzing data sets that follow a lognormal distribution.

Returns the lognormal distribution of x, where ln(x) is normally distributed with parameters Mean and Standard_dev.

Use this function to analyze data that has been logarithmically transformed.

Syntax

LOGNORM.DIST(x,mean,standard_dev,cumulative)

The LOGNORM.DIST function syntax has the following arguments:

X Required. The value at which to evaluate the function.

Mean Required. The mean of ln(x).

Standard_dev Required. The standard deviation of ln(x).

Cumulative Required. A logical value that determines the form of the function. If cumulative is TRUE, LOGNORM.DIST returns the cumulative distribution function; if FALSE, it returns the probability density function.

Remarks

If any argument is nonnumeric, LOGNORM.DIST returns the #VALUE! error value.

If x ≤ 0 or if standard_dev ≤ 0, LOGNORM.DIST returns the #NUM! error value.

The equation for the lognormal cumulative distribution function is:

LOGNORM.DIST(x,μ,o) = NORM.S.DIST(1n(x)-μ / o)

Example

Copy the example data in the following table, and paste it in cell A1 of a new Excel worksheet. For

formulas to show results, select them, press F2, and then press Enter. If you need to, you can adjust the column widths to see all the data.

Data	**Description**	
4	Value at which to evaluate the function (x)	
3.5	Mean of ln(x)	
1.2	Standard deviation of ln(x)	
Formula	**Description**	**Result**
=LOGNORM.DIST(A2,A3,A4,TRUE)	Cumulative lognormal distribution at 4, using the arguments in A2:A4.	0.0390836
=LOGNORM.DIST(A2,A3,A4,FALSE)	Probability lognormal distribution at 4, using the same arguments.	0.0176176