

How can I use the WEIBULL function in Google Sheets?

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The WEIBULL function in Google Sheets is a statistical tool that allows users to analyze and calculate the probability of an event occurring within a given time frame. It is commonly used in reliability and survival analysis. To use the WEIBULL function, users must input the required parameters, such as shape and scale values, and specify the desired probability or time frame. The result is a numerical value representing the probability of the event occurring within the specified time frame. This function can be useful for decision-making and forecasting in various industries, such as finance, engineering, and healthcare.

WEIBULL

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

Sample Usage

```
WEIBULL(2.4, 2, 3, TRUE)
```

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

Syntax

```
WEIBULL(x, shape, scale, cumulative)
```

x - The input to the Weibull distribution function.

shape - The shape parameter of the Weibull distribution function.

shape is usually denoted k , and denoted as alpha in other spreadsheet packages.

shape must be greater than 0.

scale - The scale parameter of the Weibull distribution function.

scale is usually denoted λ in texts, and denoted as beta in other spreadsheet packages.

scale must be greater than 0.

cumulative - **TRUE** to use the cumulative distribution function, **FALSE** to use the probability density function.

Notes

If `shape` is 1, `WEIBULL` is equivalent to `EXPONDIST` with `lambda` set to `1/scale`.

See Also

`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.

`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.

`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