

How do I calculate the right-tailed T-distribution in Excel?

Authored by
stats writer

July 1, 2024

RECOMMENDED CITATION

stats writer (2024). *How do I calculate the right-tailed T-distribution in Excel?*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=163949>

The right-tailed T-distribution in Excel is a statistical calculation used to determine the probability of obtaining a specific value or range of values in a sample set. To calculate this distribution, first input the sample data into an Excel spreadsheet. Then, use the formula "`=T.DIST.RT(x, degrees of freedom)`" where "x" is the value for which you want to calculate the right-tailed probability and "degrees of freedom" is the number of observations minus one. This will give you the probability of obtaining a value equal to or greater than the specified value. The result can be interpreted as the likelihood of a specific occurrence in the sample set.

Returns the right-tailed Student's t-distribution.

The t-distribution is used in the hypothesis testing of small sample data sets. Use this function in place of a table of critical values for the t-distribution.

Syntax

`T.DIST.RT(x,deg_freedom)`

The T.DIST.RT function syntax has the following arguments:

X Required. The numeric value at which to evaluate the distribution.

Deg_freedom Required. An integer indicating the number of degrees of freedom.

Remarks

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

If `deg_freedom < 1`, T.DIST.RT returns the #NUM! error value.

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	
1.959999998	Value at which to evaluate the distribution	
60	Degrees of freedom	
Formula	Description (Result)	Result

Data	Description	
=T.DIST.RT(A2,A3)	Two-tailed distribution (0.027322, or 2.73 percent)	0.027322

ARABPSYCHOLOGY.COM