How can I use the CHISQ.INV.RT function in excel to find the right-tailed inverse of the chi-square distribution?

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The CHISQ.INV.RT function in Excel is used to find the right-tailed inverse of the chi-square distribution. This function calculates the value of the chi-square variable that corresponds to a given probability level or significance level. By inputting a probability level and the degrees of freedom, the function returns the critical chi-square value for that probability level. This can be useful in statistical analysis, as it allows users to determine the critical value at which a chi-square test would reject the null hypothesis. The CHISQ.INV.RT function is a powerful tool for researchers and analysts working with chi-square distributions in Excel.

Returns the inverse of the right-tailed probability of the chi-squared distribution.

If probability = CHISQ.DIST.RT(x,...), then CHISQ.INV.RT(probability,...) = x. Use this function to compare observed results with expected ones in order to decide whether your original hypothesis is valid.

Syntax

CHISQ.INV.RT(probability,deg_freedom)

The CHISQ.INV.RT function syntax has the following arguments:

Probability Required. A probability associated with the chi-squared distribution.

Deg_freedom Required. The number of degrees of freedom.

Remarks

If either argument is nonnumeric, CHISQ.INV.RT returns the #VALUE! error value.

If probability < 0 or probability > 1, CHISQ.INV.RT returns the #NUM! error value.

If deg_freedom is not an integer, it is truncated.

If deg_freedom < 1, CHISQ.INV.RT returns the #NUM! error value.

Given a value for probability, CHISQ.INV.RT seeks that value x such that CHISQ.DIST.RT(x, deg_freedom) = probability. Thus, precision of CHISQ.INV.RT depends on precision of CHISQ.DIST.RT. CHISQ.INV.RT uses an iterative search technique. If the search has not converged after 64 iterations, the function returns the #N/A 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**	
0.050001	Probability associated with the chi-squared distribution	
10	Degrees of freedom	
Formula	**Description**	**Result**
=CHISQ.INV.RT(A2,A3)	Inverse of the one-tailed probability of the chi-squared distribution	18.306973