How can I use the CHISQ.INV function in Google Sheets to calculate the inverse of the chi-squared cumulative distribution?

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The CHISQ.INV function in Google Sheets is a mathematical tool that allows users to calculate the inverse of the chi-squared cumulative distribution. This function takes in two parameters: probability and degrees of freedom, and returns the critical value for the given cumulative probability. By using this function, users can easily determine the value of chi-squared that corresponds to a specific probability, making it useful for statistical analysis and hypothesis testing. Simply input the required parameters and the function will automatically calculate the inverse of the chi-squared distribution, providing a quick and efficient way to perform calculations and analyze data in Google Sheets.

CHISQ.INV

Calculates the inverse of the left-tailed chi-squared distribution.

Sample Usage

```
CHISQ.INV(0.42, 2)
```

```
CHISQ.INV(A2, B2)
```

Syntax

```
CHISQ.INV(probability, degrees_freedom)
```

`probability` - The probability associated with the left-tailed chi-squared distribution.

Must be greater than `0` and less than `1`.

`degrees_freedom` - The number of degrees of freedom of the distribution.

Notes

`degrees_freedom` is truncated to an integer if a non-integer is provided.

`degrees_freedom` must be at least `1`.

All arguments must be numeric.

See Also

`CHIDIST`: Calculates the right-tailed chi-squared distribution, often used in hypothesis testing.

`CHIINV`: Calculates the inverse of the right-tailed chi-squared distribution.

`CHISQ.INV.RT`: Calculates the inverse of the right-tailed chi-squared distribution.

`CHITEST`: Returns the probability associated with a Pearson's chi-squared test on the two ranges of data. Determines the likelihood that the observed categorical data is drawn from an expected distribution.

`F.INV`: Calculates the inverse of the left-tailed F probability distribution. Also called the Fisher-Snedecor distribution or Snedecor's F distribution.

`T.INV`: Calculates the negative inverse of the one-tailed TDIST function.

Example

Suppose you want to find the cutoff for the chi-squared statistic associated with a left-tailed probability of `0.95`. With `4` degrees of freedom, you can consider any chi-squared statistic larger than `3.36` to be statistically significant.

	A	B	C
1	**Probability**	**Degrees freedom**	**Solution**
2	0.95	4	9.487729037
3	0.95	4	=CHISQ.INV(0.95, 4)
4	0.95	4	=CHISQ.INV(A2, B2)