How do I use the F.INV function in Excel?

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The F.INV function in Excel is a statistical function that calculates the inverse of the cumulative probability distribution for a given F-distribution. This function is useful for determining critical values in hypothesis testing and confidence interval calculations. To use the F.INV function, first enter the probability value and degrees of freedom for the distribution as inputs. The function will then return the corresponding F-value. This can be done manually or by using the function wizard in Excel. By utilizing the F.INV function, users can easily and accurately perform statistical calculations in Excel.

This article describes the formula syntax and usage of the **F.INV** function in Microsoft Excel.

Description

Returns the inverse of the F probability distribution. If p = F.DIST(x,...), then F.INV(p,...) = x. The F distribution can be used in an F-test that compares the degree of variability in two data sets. For example, you can analyze income distributions in the United States and Canada to determine whether the two countries have a similar degree of income diversity.

Syntax

F.INV(probability,deg_freedom1,deg_freedom2)

The F.INV function syntax has the following arguments:

Probability Required. A probability associated with the F cumulative distribution.
Deg_freedom1 Required. The numerator degrees of freedom.
Deg_freedom2 Required. The denominator degrees of freedom.

Remarks

If any argument is nonnumeric, F.INV returns the #VALUE! error value.
If probability < 0 or probability > 1, F.INV returns the #NUM! error value.
If deg_freedom1 or deg_freedom2 is not an integer, it is truncated.
If deg_freedom1 < 1, or deg_freedom2 < 1, F.INV returns the #NUM! error value.