How do I use the FDIST function in Excel to determine the probability of a value falling within a certain range in a given data set?

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The FDIST function in Excel is a statistical tool that allows users to determine the probability of a value falling within a certain range in a given data set. By inputting the necessary parameters, including the probability distribution, degrees of freedom, and the lower and upper bounds of the range, the function calculates the probability of the data falling within that range. This can be useful for analyzing and interpreting data, as well as making informed decisions based on the likelihood of a specific outcome. Using the FDIST function in Excel can save time and provide accurate results for determining the probability of a value falling within a desired range in a data set.

Returns the (right-tailed) F probability distribution (degree of diversity) for two data sets. You can use this function to determine whether two data sets have different degrees of diversity. For example, you can examine the test scores of men and women entering high school and determine if the variability in the females is different from that found in the males.

Important: This function has been replaced with one or more new functions that may provide improved accuracy and whose names better reflect their usage. Although this function is still available for backward compatibility, you should consider using the new functions from now on, because this function may not be available in future versions of Excel.

For more information about the new functions, see F.DIST function and F.DIST.RT function.

Syntax

FDIST(x,deg_freedom1,deg_freedom2)

The FDIST function syntax has the following arguments:

X Required. The value at which to evaluate the function.
Deg_freedom1 Required. The numerator degrees of freedom.
Deg_freedom2 Required. The denominator degrees of freedom.

Remarks

If any argument is nonnumeric, FDIST returns the #VALUE! error value.
If x is negative, FDIST returns the #NUM! error value.
If deg_freedom1 or deg_freedom2 is not an integer, it is truncated.
If deg_freedom1 < 1 or deg_freedom1 ≥ 10^10, FDIST returns the #NUM! error value.
If deg_freedom2 < 1 or deg_freedom2 ≥ 10^10, FDIST returns the #NUM! error value.
FDIST is calculated as FDIST=P(F>x), where F is a random variable that has an F distribution with deg_freedom1 and deg_freedom2 degrees of freedom.

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**	
15.20686486	Value at which to evaluate the function.	
6	Numerator degrees of freedom.	
4	Denominator degrees of freedom	
Formula	**Description**	**Result**
=FDIST(A2,A3,A4)	F probability distribution for the terms in A2, A3, and A4.	0.01