How do I use the BETADIST function in Excel?

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June 28, 2024

The BETADIST function in Excel is a statistical function used to calculate the cumulative beta distribution, which represents the probability of a random variable falling within a specified range. This function takes four arguments: x, alpha, beta, and cumulative. X is the input value, alpha and beta are the shape parameters, and cumulative is a logical value that determines whether the function returns the cumulative or probability density value. To use the BETADIST function, simply enter the necessary arguments into the function syntax and press enter. This function is useful for analyzing data sets and making predictions based on probability distributions.

Returns the cumulative beta probability density function. The beta distribution is commonly used to study variation in the percentage of something across samples, such as the fraction of the day people spend watching television.

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 function, see BETA.DIST function.

Syntax

BETADIST(x,alpha,beta,,)

The BETADIST function syntax has the following arguments:

X Required. The value between A and B at which to evaluate the function.
Alpha Required. A parameter of the distribution.
Beta Required. A parameter of the distribution.
A Optional. A lower bound to the interval of x.
B Optional. An upper bound to the interval of x.

Remarks

If any argument is nonnumeric, BETADIST returns the #VALUE! error value.
If alpha ≤ 0 or beta ≤ 0, BETADIST returns the #NUM! error value.
If x < A, x > B, or A = B, BETADIST returns the #NUM! error value.
If you omit values for A and B, BETADIST uses the standard cumulative beta distribution, so that A = 0 and B = 1.

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**	
2	Value at which to evaluate the function	
8	Parameter of the distribution	
10	Parameter of the distribution	
1	Lower bound	
3	Upper bound	
Formula	**Description**	**Result**
=BETADIST(A2,A3,A4,A5,A6)	Cumulative beta probability density function, for the above parameters	0.6854706