How To use the BETA.DIST function in Google Sheets?

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The BETA.DIST function in Google Sheets allows users to calculate the probability of a value falling within a specified range in a beta distribution. To use this function, open a Google Sheets document and click on the cell where you want to use the function. Type the equal sign to start the formula, then begin typing BETA.DIST and select it from the list of functions that appears. The function's syntax, description, and examples will appear. Enter the required arguments following the syntax and press Enter to see the result. The first argument is the value at which the distribution is evaluated, followed by the alpha value, beta value, cumulative or probability, and distribution type. For more information on the usage of this function, refer to the Google Sheets help center.

BETA.DIST function

The BETA.DIST function returns the probability of a given value as defined by the beta distribution function.

Parts of a BETA.DIST function

```
BETA.DIST(value, alpha, beta, lower_bound, upper_bound)
```

Part	Description	Notes
`value`	The value at which to evaluate the probability function.	The given value must be a number from the given lower boundary to the given upper boundary.
`alpha`	The first shape parameter of the distribution.	The given alpha must be a positive number.
beta	The second shape parameter of the distribution.	The given beta must be a positive number.
`lower_bound`	The lower boundary of the function.	The default lower boundary is 0.
`upper-bound`	The upper boundary of the function.	The default upper boundary is 1.

Sample formulas

```
BETA.DIST(0.65, 1.234, 7, 0.5, 3)
```

```
BETA.DIST(0.42, 3, 8)
```

```
BETA.DIST(0.92, 0.5, 0.7)
```

```
BETA.DIST(A5, 0.5, 0.7, -1, 1)
```

Note

You can use `BETADIST` or `BETA.DIST` to perform this function.

Example

In this example, the cumulative probability of beta distribution at 0.3 is parameterized by an alpha of 5 and a beta of 1, defined over :

	A	B	C	D	E	F
1	**Value**	**Alpha**	**Beta**	**Lower bound**	**Upper bound**	**Solution**
2	0.3	5	1	-1	1	0.1160290625
3	0.3	5	1	-1	1	=BETA.DIST(0.3, 5, 1, -1, 1)
4	0.3	5	1	-1	1	=BETA.DIST(A4, B4, C4, D4, E4)

Related function

BETAINV: The BETA.INV function returns the value of the inverse beta distribution function for a given probability.