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

Authored by

stats writer

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The BINOM.INV function in Excel is used to calculate the inverse of the cumulative binomial distribution. This function returns the smallest value for which the cumulative binomial distribution is equal to or greater than a given probability. To use this function, the user must provide the number of trials, probability of success, and the desired cumulative probability. The function then calculates and returns the number of successes that would result in the given cumulative probability. This function is useful for analyzing and predicting outcomes in situations with a fixed number of trials and a constant probability of success.

Returns the smallest value for which the cumulative binomial distribution is greater than or equal to a criterion value.

Syntax

BINOM.INV(trials,probability_s,alpha)

The BINOM.INV function syntax has the following arguments:

Trials Required. The number of Bernoulli trials.

Probability_s Required. The probability of a success on each trial.

Alpha Required. The criterion value.

Remarks

If any argument is nonnumeric, BINOM.INV returns the #VALUE! error value.

If trials is not an integer, it is truncated.

If trials < 0, BINOM.INV returns the #NUM! error value.

If probability_s is <= 0 or probability_s => 1, BINOM.INV returns the #NUM! error value.

If alpha <= 0 or alpha => 1, BINOM.INV returns the #NUM! error value.

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	
6	Number of Bernoulli trials	
0.5	Probability of a success on each trial	
0.75	Criterion value	
Formula	**Description**	**Result**
=BINOM.INV(A2,A3,A4)	Smallest value for which the cumulative binomial distribution is greater than or equal to a criterion value.	4