#### NEGBINOMDIST

[Syntax](Syntax.docx):

NEGBINOMDIST ( number-failures , number-successes , success-probability )

Description: Computes the negative binomial distribution. NEGBINOMDIST returns the probability that there will be number-failures failures before the number-successesth success, when the constant probability of a success is success-probability.

Mathematical Formula:



where:

x is number-failures, [r](r.docx) is number-successes, and [p](p.docx) is success-probability.

Arguments:

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| number-failures | number | The number of failures, truncated to integer. |
| number-successes | number | The threshold number of successes, truncated to integer. |
| success-probability | number | The probability of a success. |

Return Type and Value: number – The negative binomial distribution.

However, if

* number-failures < 0 or number-successes < 1, #NUM! is returned.
* success-probability < 0 or success-probability > 1, #NUM! is returned.

[Example:

NEGBINOMDIST(6,10,0.5) results in 0.076370239

end example]