#### NORMDIST

[Syntax](Syntax.docx):

NORMDIST ( x , mean , standard-deviation , cumulative-flag )

Description: Computes the normal distribution for the specified mean and standard deviation.

Mathematical Formula:

The equation for the normal density function (cumulative-flag = [FALSE](FALSE.docx)) is:

Equation

When cumulative-flag = [TRUE](TRUE.docx), the [formula](formula.docx) is the integral from negative infinity to x of the given formula.

Arguments:

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| [x](x.docx) | number | The value for which the distribution is to be computed. |
| mean | number | The arithmetic mean of the distribution. |
| standard-deviation | number | The standard deviation of the distribution. |
| cumulative-flag | logical | Determines the form of the function. If [TRUE](TRUE.docx), then the cumulative distribution function is returned; if [FALSE](FALSE.docx), the probability mass function is returned. |

Return Type and Value: number – The normal distribution for the specified mean and standard deviation.

However, if standard-deviation ≤ 0, #NUM! is returned.

[Example:  
  
NORMDIST(42,40,1.5,TRUE) results in 0.90878878  
NORMDIST(42,40,1.5,FALSE) results in 0.10934005  
  
end example]