#### TDIST

[Syntax](Syntax.docx):

TDIST ( x , degrees-freedom , distribution-tails )

Description: Computes the Percentage Points (probability) for the Student t-distribution where a numeric value, x, is a calculated value of [t](t.docx) for which the Percentage Points are to be computed.

Mathematical Formula:

If distribution-tails = 1, TDIST = P( X>x ), where X is a random variable that follows the t-distribution.

If distribution-tails = 2, TDIST = P(|X| > x) = P(X > x or X < -x)

Arguments:

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| [x](x.docx) | number | The value at which to evaluate the distribution. |
| degrees-freedom | number | The number of degrees of freedom, truncated to an integer. |
| distribution-tails | number | The number of distribution tails to return, truncated to an integer. If 1, TDIST returns the one-tailed distribution. If 2, TDIST returns the two-tailed distribution. |

Return Type and Value: number – The Percentage Points (probability) for the Student t-distribution.

However, if

* degrees-freedom < 1, #NUM! is returned.
* tails has any value other than 1 or 2, #NUM! is returned.
* x < 0, #NUM! is returned.

[Example:

TDIST(1.959999998,60,1) results in 0.027322464
TDIST(1.959999998,60,2) results in 0.054644927

end example]