

Re: P-value in Excel

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- *From:* "Linda" <devilish_child_5@xxxxxxxxxxxxx>
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Stephen J. Herschkorn wrote:

(snip)

`tdist(x,d,2)` gives the two-tailed area under the t density with d degrees of freedom; the regions go from $-\infty$ to $-x$ and from x to ∞ . x must be nonnegative. Is this what you did not understand, or do you not understand the statistics that tells us why we need this?

For this to be the correct p value, you must be running a test whose test statistic has t distribution, and you must need a two-tailed test.

By the way, Microsoft designed the Excel functions for the t distribution rather poorly. For the other distributions, the `DIST` and `INV` functions (e.g., `NORMSDIST` and `NORMSINV`, `CHIDIST` and `CHIINV`, and `FDIST` and `FINV`) are inverses of one another and refer to one-tailed regions (i.e., the cumulative distribution function or its complement). `TDIST` and `TINV` are different. `TINV` takes only two arguments (abscissa and degrees of freedom) and always gives the *two-tailed* value. `TDIST` takes a third argument which indicates whether you want a one- or two-tailed value.

Yep, this is the answer that I was initially asking for. Thank you. All input was much appreciated. Learnt a few things about Excel here!