#### TTEST

[Syntax](Syntax.docx):

TTEST ( array-1 , array-2 , distribution-tails , test-type )

Description: Computes the probability associated with a Student's t-Test.

Arguments:

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| array-1 | array, [reference](reference.docx) | The first numerical data set. |
| array-1 | array, [reference](reference.docx) | The first numerical data set. |
| distribution-tails | number | Specifies the number of distribution tails, truncated to an integer. If 1, TTEST uses the one-tailed distribution. If 2, TTEST uses the two-tailed distribution. |
| test-type | number | The truncated-to-integer kind of t-Test to perform, as follows:

|  |  |
| --- | --- |
| Value | Test Performed |
| 1 | Paired |
| 2 | Two-sample equal variance (homoscedastic) |
| 3 | Two-sample unequal variance (heteroscedastic) |

 |

Return Type and Value: number – The probability associated with a Student's t-Test.

However, if

* array-1 and array-2 have a different number of data points, and test-type is 1, the return value is unspecified.
* distribution-tails is any value other than 1 or 2, #NUM! is returned.

[Example: Given the following data:

|  |  |  |
| --- | --- | --- |
|  | A | B |
| 1 | Data 1 | Data 2 |
| 2 | 3 | 6 |
| 3 | 4 | 19 |
| 4 | 5 | 3 |
| 5 | 8 | 2 |
| 6 | 9 | 14 |
| 7 | 1 | 4 |
| 8 | 2 | 5 |
| 9 | 4 | 17 |
| 10 | 5 | 1 |

TTEST(A2:A10,B2:B10,2,1) results in 0.196016

end example]