How can I use the T.TEST function in Google Sheets?

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The T.TEST function in Google Sheets is a statistical tool that allows users to determine the statistical significance of the difference between two sets of data. By inputting the two data sets, the function calculates the probability of obtaining a certain difference between the two sets by chance. This information can be used to make informed decisions and draw conclusions about the data. To use the T.TEST function in Google Sheets, simply select the data sets and enter the function with the appropriate parameters. This tool can be helpful in various fields, such as business, finance, and research, to analyze and compare data sets.

T.TEST

Returns the probability associated with t-test. Determines whether two samples are likely to have come from the same two underlying populations that have the same mean.

Sample Usage

```
T.TEST(A1:A4, B1:B4, 2, 1)
```

Syntax

```
T.TEST(range1, range2, tails, type)
```

`range1` - The first sample of data or group of cells to consider for the t-test.

`range2` - The second sample of data or group of cells to consider for the t-test.

`tails` - Specifies the number of distribution tails.

If `1`: uses a one-tailed distribution.

If `2`: uses a two-tailed distribution.

`type` - Specifies the type of t-Test.

If `1`: a paired test is performed.

If `2`: a two-sample equal variance (homoscedastic) test is performed.

If `3`: a two-sample unequal variance (heteroscedastic) test is performed.

Notes

`tails` and `type` must be numeric.

`range1` and `range2` must have the same number of data points.

`T.TEST` uses the data in `range1` and `range2` to compute a non-negative test. If `tails` is set to `1`, `T.TEST` returns the probability of a higher value of the t-statistic under the assumption that `range1` and `range2` are samples from populations with the same mean. The value returned by `T.TEST` when `tails` is set to `2` is double that returned when `tails` is set to `1` and corresponds to the probability of a higher absolute value of the t-statistic under the "same population means" assumption.

You can use `TTEST` or `T.TEST` to perform this function.

Examples

In this example, a paired, two-tailed t-Test is computed on a student's first and second quarter grades.