# . How do I use FTEST in Google Sheets?

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FTEST is a statistical function in Google Sheets that allows users to compare the variances of two sets of data. This function is commonly used in data analysis to determine if there is a significant difference between two data sets. By entering the FTEST formula and specifying the two data ranges, users can obtain a p-value that indicates the probability of the variances being equal. This information can be helpful in making informed decisions and drawing conclusions from the data.

## FTEST

Returns the probability associated with an F-test for equality of variances. Determines whether two samples are likely to have come from populations with the same variance.

### Sample Usage

```
FTEST(A1:A5, B1:B5)
```

```
FTEST(A1:D3, A5:D7)
```

### Syntax

```
FTEST(range1, range2)
```

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

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

### Notes

Any non-numeric cells in either range are ignored in the calculation.

You can use `FTEST` or `F.TEST` to perform this function.

### See Also

`CHITEST`: Returns the probability associated with a Pearson's chi-squared test on the two ranges of data. Determines the likelihood that the observed categorical data is drawn from an expected distribution.

`FDIST`: Calculates the right-tailed F probability distribution (degree of diversity) for two data sets with given input x. Alternately called Fisher-Snedecor distribution or Snedecor's F distribution.

`FINV`: Calculates the inverse of the right-tailed F probability distribution. Also called the Fisher-Snedecor distribution or Snedecor's F distribution.

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`TTEST`: 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.

## Example

Suppose you want to determine whether exam scores from this semester have a different variability than last semester. Pass the scores from each semester as arguments to `FTEST`. Because the p-value is high, we can conclude that there is not a significant difference in variability in exam scores.

| | A | B |
|---|---|---|
| **1** | **Scores this semester** | **Scores last semester** |
| **2** | 92 | 84 |
| **3** | 75 | 89 |
| **4** | 97 | 87 |
| **5** | 85 | 95 |
| **6** | 87 | 82 |
| **7** | 82 | 71 |
| **8** | 79 | |
| **9** | **Solution** | **Formula** |
| **10** | 0.8600520777 | `=FTEST(A2:A8, B2:B7)` |

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