

# How can I use the -VAR- function in Google Sheets?

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## RECOMMENDED CITATION

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The -VAR- function in Google Sheets allows users to calculate the variance of a given set of data. This function takes into account the deviation of each data point from the average, providing a measure of how spread out the data is. By using the -VAR- function, users can easily analyze and compare the variability of different data sets. To use this function, simply input the range of cells containing the data, and the function will return the variance value. This feature is useful for data analysis and decision making purposes, making it a valuable tool for users of Google Sheets.

## VAR

Calculates the variance based on a sample.

VAR for BigQuery

Calculates the sample variance of a data column.

## Sample Usage

```
=VAR(table_name!price)
```

## Syntax

```
VAR(column)
```

`column` - The data column of the sample. **Tip:** Returning sample variance across multiple columns is not supported.

## Sample Usage

```
VAR(1,2,3,4,5,6,7,8,9,10)
```

```
VAR(A2:A100)
```

## Syntax

```
VAR(value1, )
```

`value1` - The first value or range of the sample.

`value2, ...` - Additional values or ranges to include in the sample.

## Notes

Although `VAR` is specified as taking a maximum of 30 arguments, Google Sheets supports an arbitrary number of arguments for this function.

If the total number of values supplied as `value` arguments is not at least two, `VAR` will return the `#DIV/0!` error.

`VAR` will return an error if all of the `value` arguments are text. To calculate variance while interpreting text values as 0, use `VARA`.

`VAR` calculates variance for a sample. To calculate variance across an entire population, use `VARP`.

`VAR` takes the sum of the squares of each value's deviation from the mean and divides by the number of such values minus one. This differs from the calculation of variance across an entire population in that the latter divides by the size of the dataset without subtracting one.

## See Also

`VARPA`: Calculates the variance based on an entire population, setting text to the value ``0``.

`VARP`: Calculates the variance based on an entire population.

`VARA`: Calculates the variance based on a sample, setting text to the value ``0``.

`STDEVPA`: Calculates the standard deviation based on an entire population, setting text to the value ``0``.

`STDEVP`: Calculates the standard deviation based on an entire population.

`STDEVA`: Calculates the standard deviation based on a sample, setting text to the value ``0``.

`STDEV`: The `STDEV` function calculates the standard deviation based on a sample.

`SKEW`: Calculates the skewness of a dataset, which describes the symmetry of that dataset about the mean.

`KURT`: Calculates the kurtosis of a dataset, which describes the shape, and in particular the "peakedness" of that dataset.

`DVARP`: Returns the variance of an entire population selected from a database table-like array or range using a SQL-like query.

`DVAR`: Returns the variance of a population sample selected from a database table-like array or

range using a SQL-like query.

**DSTDEVP**: Returns the standard deviation of an entire population selected from a database table-like array or range using a SQL-like query.

**DSTDEV**: Returns the standard deviation of a population sample selected from a database table-like array or range using a SQL-like query.

**DEVSQ**: Calculates the sum of squares of deviations based on a sample.

**AVEDEV**: Calculates the average of the magnitudes of deviations of data from a dataset's mean.

## Examples

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