How can I calculate the kurtosis of a data set in Google Sheets?

Authored by

stats writer

June 30, 2024

Kurtosis is a statistical measure that describes the shape of a data set's distribution. It measures the degree to which the data is clustered around the mean and the presence of outliers. In order to calculate the kurtosis of a data set in Google Sheets, the user can follow these steps:

1. Select a cell where the kurtosis value will be displayed.
2. Enter the formula "=KURT(range)", where "range" is the range of cells that contains the data set.
3. Press Enter to calculate the kurtosis value.
4. The result will be a numerical value, with a value of 3 indicating a normal distribution. A positive value greater than 3 indicates a more peaked distribution with heavier tails, while a negative value less than 3 indicates a flatter distribution with lighter tails.

By following these steps, the user can easily calculate the kurtosis of a data set in Google Sheets, providing valuable insights into the shape and distribution of the data.

KURT

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

Sample Usage

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

`KURT(A2:A100)`

Syntax

`KURT(value1, )`

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

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

Notes

Although `KURT` 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, `KURT` will return the `#DIV/0!` error.

Any text encountered in the `value` arguments will be ignored.

Positive kurtosis indicates a more "peaked" distribution in the dataset, while negative kurtosis indicates a flatter distribution.

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`.

`VAR`: Calculates the variance based on a sample.

`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`.

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

`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