“How can I use the SKEW.P function in Excel to calculate the skewness of a dataset?”

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The SKEW.P function in Excel is a powerful tool that allows users to easily calculate the skewness of a dataset. Skewness is a measure of the asymmetry of a distribution, and can provide valuable insights into the shape and distribution of a dataset. By using the SKEW.P function, users can quickly and accurately determine the skewness of their data, helping them to better understand and analyze their data. This function is especially useful in statistical analysis and data modeling, as it can aid in identifying any potential outliers or abnormalities in the data. Overall, the SKEW.P function is an essential tool for any Excel user looking to gain a deeper understanding of their dataset.

This article describes the formula syntax and usage of the SKEW.P function in Microsoft Excel.

Description

Returns the skewness of a distribution based on a population: a characterization of the degree of asymmetry of a distribution around its mean.

Syntax

SKEW.P(number 1, ,...)

The SKEW.P function syntax has the following arguments.

Number 1, number 2,... Number 1 is required, subsequent numbers are optional. Number 1, number 2,... are 1 to 254 numbers or names, arrays, or reference that contain numbers for which you want the population skewness.

SKEW.P uses the following equation:

$$v = \frac{1}{N}\sum_{i=1}^{N}\frac{x_i - \bar{x}^3}{\sigma}$$

Remarks

Arguments can either be numbers or names, arrays, or references that contain numbers.

Logical values and text representations of numbers that you type directly into the list of arguments are counted.

If an array or reference argument contains text, logical values, or empty cells, those values are

ignored; however, cells with the value zero (0) are included.

SKEW.P uses the standard deviation of an entire population, not a sample.

If arguments are values that are not valid, SKEW.P returns the #NUM! error value.

If arguments use data types that are not valid, SKEW.P returns the #VALUE! error value.

If there are fewer than three data points, or the sample standard deviation is zero, SKEW.P returns the #DIV/0! Error value.