How can I use the GEOMEAN function in Excel to calculate the geometric mean of a set of numbers?

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The GEOMEAN function in Excel is a mathematical tool that calculates the geometric mean of a set of numbers. It is a useful function for finding the average rate of change or growth in a group of values. To use the GEOMEAN function, simply input the numbers you want to calculate in the designated cells and use the formula "=GEOMEAN (cell range)". This will automatically calculate the geometric mean of the given numbers. The result can be used to make informed decisions in various fields such as finance, economics, and statistics. The GEOMEAN function saves time and minimizes errors in calculating the geometric mean, making it a valuable tool for data analysis.

This article describes the formula syntax and usage of the **GEOMEAN** function in Microsoft Excel.

Description

Returns the geometric mean of an array or range of positive data. For example, you can use GEOMEAN to calculate average growth rate given compound interest with variable rates.

Syntax

GEOMEAN(number1, , ...)

The GEOMEAN function syntax has the following arguments:

Number1, number2, ... Number1 is required, subsequent numbers are optional. 1 to 255 arguments for which you want to calculate the mean. You can also use a single array or a reference to an array instead of arguments separated by commas.

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 are included.

Arguments that are error values or text that cannot be translated into numbers cause errors.

If any data point ≤ 0, GEOMEAN returns the #NUM! error value.

The equation for the geometric mean is: