

How do I use the ATANH function in Excel?

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The ATANH function in Excel is a mathematical function that calculates the inverse hyperbolic tangent of a given value. This function is useful for solving complex equations and can be easily used in Excel by following a few simple steps. To use the ATANH function, first, locate the cell where you want the result to appear. Then, type "=ATANH(" followed by the value or cell reference for which you want to calculate the inverse hyperbolic tangent. Press enter and the result will be displayed in the selected cell. This function is particularly helpful for data analysis and can be used in combination with other Excel functions to perform complex calculations.

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

Description

Returns the inverse hyperbolic tangent of a number. Number must be between -1 and 1 (excluding -1 and 1). The inverse hyperbolic tangent is the value whose hyperbolic tangent is number, so ATANH(TANH(number)) equals number.

Syntax

ATANH(number)

The ATANH function syntax has the following arguments:

Number Required. Any real number between 1 and -1.

Example

Copy the example data in the following table, and paste it in cell A1 of a new Excel worksheet. For formulas to show results, select them, press F2, and then press Enter. If you need to, you can adjust the column widths to see all the data.

Formula	Description	Result
=ATANH(0.76159416)	Inverse hyperbolic tangent of 0.76159416	1.00000001
=ATANH(-0.1)	-0.100335348	