How can I use the BESSELY function in Excel?

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The BESSELY function in Excel is a mathematical tool that calculates the modified Bessel function of the second kind. This function is commonly used in engineering and physics to solve complex differential equations. To use the BESSELY function, simply enter the function name followed by the desired value in parentheses. This will return the corresponding output value. The BESSELY function is a useful tool for Excel users who need to perform advanced mathematical calculations, making it a valuable tool for data analysis and problem-solving.

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

Description

Returns the Bessel function, which is also called the Weber function or the Neumann function.

Syntax

BESSELY(X, N)

The BESSELY function syntax has the following arguments:

X Required. The value at which to evaluate the function.

N Required. The order of the function. If n is not an integer, it is truncated.

Remarks

If x is nonnumeric, BESSELY returns the #VALUE! error value.

If n is nonnumeric, BESSELY returns the #VALUE! error value.

If n < 0, BESSELY returns the #NUM! error value.

The n-th order Bessel function of the variable x is:

$$Y_n(x) = \lim_{v \to n} \frac{J_v(x)\cos(v\,\pi) - J_{-v}(x)}{\sin(v\,\pi)}$$