BESSEL

BESSEL returns the Bessel function value for a numerical expression, based on the indicated order.

Syntax

BESSEL(FunctionType$, NumExp)

Arguments

- FunctionType$ is a string expression that indicates the order of the Bessel function:
    a. "I1", Modified Bessel function of the first kind;
    b. "J1", Bessel function of the first kind, first order;
    c. "Y1", Bessel function of the second kind, first order;
    d. "K1", Modified Bessel function of the second kind;
- NumExp is a numerical expression

Remarks

1. Information on the Bessel function and its orders can be found here (Wikipedia).

Examples

Method 1

Modified Bessel function of the first kind;

BESSEL("I1", 0.3) returns 0.15169383946249

Method 2

Bessel function, first kind, first order:

BESSEL("J1", 0.3) returns 0.14831881628779

Method 3

Bessel function, second kind, first order:

BESSEL("Y1", 0.3) returns -2.29310513710031

Method 4

Bessel function, second kind, first order:

BESSEL("K1", 0.3) returns 3.05599204051877

Example knowledgebases

Download

An example knowledgebase of this function can be downloaded here.

Description

Input

A is the input value, B1, B2, B3, B4 are the four alternative BESSEL functions.

Quick links: Functions overview | Attribute overview | Constants overview | Dimensions overview