

How can I use the function IMSECH in Google Sheets to calculate the inverse hyperbolic secant of a given value?

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The IMSECH function in Google Sheets allows users to calculate the inverse hyperbolic secant of a given value. This function is useful for finding the value of x in the equation $\operatorname{sech}(x) = a$, where a is a given number. By using the IMSECH function, the inverse hyperbolic secant of a value can be easily determined, providing an efficient and accurate way to solve equations involving the hyperbolic secant function. To use this function, simply input the desired value into the IMSECH formula, and the resulting output will be the inverse hyperbolic secant of that value. This feature is a valuable tool for users who need to perform calculations involving hyperbolic functions in Google Sheets.

IMSECH function

The IMSECH function returns the hyperbolic secant of the given complex number.

For example, a given complex number "x+yi" returns "sech(x+yi)."

Parts of an IMSECH function

`IMSECH (number)`

Part	Description	Notes
number	The complex number for which you want the hyperbolic secant.	This can be either the result of the COMPLEX function, a real number interpreted as a complex number with imaginary parts equal to 0, or a string in the format "x+yi" where x and y are numeric.

Sample formulas

`IMSECH (COMPLEX (4 , 6))`

`IMSECH (4)`

`IMSECH ("2+3i")`

Notes

The `IMSECH` function returns an error if the given number isn't a valid complex number.

Examples

	A	B
1	Formula	Result

2	=IMSECH (COMPLEX (4 , 1))	0.0198041304666168-0.0308224192896954i
3	=IMSECH (3 . 5)	0.0603397441201677
4	=IMSECH (" 3+2i ")	-0.0416749644111443-0.0906111371962376i

Related functions

IMCOSH: The IMCOSH function returns the hyperbolic cosine of the given complex number.

IMSECH: The IMSECH function returns the hyperbolic secant of the given complex number.

COMPLEX: The COMPLEX function creates a complex number, given real and imaginary coefficients.

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