

How can I use the IMEXP function in Google Sheets?

Authored by
stats writer

June 29, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I use the IMEXP function in Google Sheets?*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=157827>

The IMEXP function in Google Sheets is a powerful tool that allows users to calculate the exponential value of a complex number. This function follows the standard mathematical format of inputting the real and imaginary parts of a number and returns the exponential value in the form of a complex number. To use the IMEXP function, simply input the desired complex number as the function's argument and press enter. This function is useful for various mathematical and engineering calculations, making it a valuable tool for users of Google Sheets.

IMEXP function

The IMEXP function returns Euler's number, e (~2.718) raised to a complex power.

Parts of a IMEXP function

IMEXP(exponent)

Part	Description
exponent	The exponent to raise e to.

Sample formulas

IMEXP("2+3i")

IMEXP("2-4j")

IMEXP(COMPLEX(2, 3))

Notes

The exponential of a complex number is defined as follows:

$$\text{IMEXP}(x+yi) = e^x \cos(y) + i e^x \sin(y)$$

Examples

	A	B
1	Formula	Result
2	=IMEXP("1+i")	1.46869393991589+2.28735528717884i
3	=IMEXP("2-2j")	-3.07493232063936-6.71884969742825j

Related functions

EXP: Returns Euler's number, e (~2.718) raised to a power. IMLN: The `IMLN` function returns the logarithm of a complex number, base e (Euler's number). COMPLEX: The `COMPLEX` function creates a complex number, given real and imaginary coefficients. IMAGINARY: Returns the imaginary coefficient of a complex number.

ARABPSYCHOLOGY.COM