

# How can I use the IMLLOG function in Google Sheets?

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## RECOMMENDED CITATION

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PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=157846>

The IMLOG function in Google Sheets allows users to calculate the logarithm of a complex number. This function takes in two arguments, the complex number and the base of the logarithm, and returns the result in the form of a complex number. By using the IMLOG function, users can easily perform complex number calculations and analyze data in a more efficient and organized manner. This function can be accessed through the formula bar in Google Sheets and can be used in various applications, such as financial analysis, engineering, and data analysis. Overall, the IMLOG function provides a useful tool for users to manipulate and analyze complex numbers in Google Sheets.

## IMLOG function

The IMLOG function returns the logarithm of a complex number for a specified base.

### Parts of an IMLOG formula

The IMLOG formula is formatted as `=IMLOG(value, base)`.

Part	Description	Notes
value	The input value of the logarithm function.	The number can be written as plain numbers, e.g. 1, to be interpreted as a real number. The number can be written as quoted text in order to specify both the real and complex coefficients.
base	The base to use when calculating the logarithm.	Must be a positive real number.

### Sample formulas

```
IMLOG("1+i", 3.5)
```

```
IMLOG(COMPLEX(25, 34), 2.3)
```

```
IMLOG(100, 10)
```

### Notes

IMLOG is equivalent to LOG for all non-complex values that are greater than zero. IMLOG is equivalent to IMLN given base of  $e$ , or EXP(1). IMLOG is equivalent to IMLOG10 given base of 10. IMLOG is equivalent to IMLOG2 given base of 2.

## Examples

	A	B
1	<b>Formula</b>	<b>Result</b>
2	=IMLOG("1+i", 3.5)	0.276647377832556+0.626932774314643i
3	=IMLOG(COMPLEX(25, 34), 2.3)	4.49324546771284+1.12470086031758i
4	=IMLOG(100, 10)	2

## Related function

IMLN: The IMLN function returns the logarithm of a complex number, base e (Euler's number).

IMLOG10: The IMLOG10 function returns the logarithm of a complex number with base 10.

IMLOG2: The IMLOG2 function returns the logarithm of a complex number with base 2.

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

IMAGINARY: Returns the imaginary coefficient of a complex number.

IMREAL: Returns the real coefficient of a complex number.

LOG: Returns the logarithm of a number given a base.