GOOGLE AS A CALCULATOR

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Google's calculator tries to understand the problem you are attempting to solve without requiring you to use special syntax. However, it may be helpful to know the most direct way to pose a question to get the best results. Listed below are a few suggestions for the most common type of expressions (and a few more esoteric ones).

Most operators come between the two numbers they combine, such as the plus sign in the expression 1+1.

OPERATOR	FUNCTION	EXAMPLE
+	addition	3+43
-	subtraction	13-5
*	multiplication	7*8
/	division	12/3
^	exponentiation (raise to a power of)	8^2
% of	X % of Y computes X percent of Y	20% of 150
th root of	calculates the n^{th} root of a number	5th root of 32

Some operators work on only one number and should come before that number. In these cases, it often helps to put the number in parentheses.

OPERATOR	FUNCTION	EXAMPLE
sqrt	square roots	qrt(9)
sin, cos, etc.	trigonometric functions	sin(pi/3) tan(45 degrees)
ln	logarithm base e	ln(17)
log	logarithm base 1010	log(1,000)

Other good things to know

You can force the calculator to try and evaluate an expression by putting an equals sign (=) after it. This only works if the expression is mathematically resolvable. For example, 1-800-555-1234= will return a result, but 1/0= will not.

Parentheses can be used to enclose the parts of your expression that you want evaluated first. For example, (1+2)*3 causes the addition to happen before the multiplication.

The *in* operator is used to specify what units you want used to express the answer. Put the word in followed by the name of a unit at the end of your expression. This works well for unit conversions such as: *5 kilometers in miles*.

You can use hexadecimal, octal and binary numbers. Prefix hexadecimal numbers with 0x, octal numbers with 0o and binary numbers with 0b. For example: 0x7f + 0b10010101.

The calculator understands many different units, as well as many physical and mathematical constants. These can be used in your expression. Many of these constants and units have both long and short names. You can use either name in most cases. For example, *km* and *kilometer* both work, as do *c* and the *speed of light*.