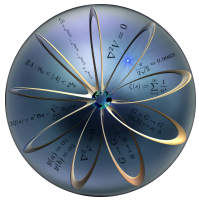

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list of overloaded symbols

Canonical name	ListOfOverloadedSymbols
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By tradition, certain symbols in mathematics are overloaded with multiple meanings, often resolvable by context.

0.1 The Latin-1 alphabet

A Hexadecimal numeral 10. As $A(x)$ members of a sequence that are less than x function

a First variable. Real part of complex number. As $a(n)$ sequence function (this is a frequent use in Sloane's OEIS). As a_n, a recurrence relation, with a_1 and a_2 often assigned literal values.

B Bernoulli number. Hexadecimal numeral 11.

b Second variable. Multiplied by an imaginary unit (usually i), the imaginary part of a complex number.

C Roman numeral 100. Catalan number. Hexadecimal numeral 12. A fallback in the absence of $\mathbb{C}$, the set of complex numbers.

c Third variable. A constant, "not always the same!" (Finch, Guy). Complex number $c = a + bi$. In physics, the constant of the speed of light.

D Roman numeral 500. Hexadecimal numeral 13.

d Divisor. Digit. Difference.

E Euler numbers. The base of natural logarithms in Mathematica's InputForm. Hexadecimal numeral 14.

e The base of natural logarithms. Sylvester's sequence. In physics, a variable of energy.

F Fermat number. Fibonacci number. Hexadecimal numeral 15.

I Roman numeral 1. Imaginary unit in Mathematica's InputForm.

i Iterator. Imaginary unit.

L Roman numeral 50. Liouville sum function.

M Mersenne number. Mertens function. Roman numeral 1000.

m Arbitrary number related to n. In physics, a variable of matter.

P Largest prime factor function. Number in the Padovan sequence. Pell number. Perrin number.

r Third prime. Remainder.

x First variable. Horizontal axis label. Arbitrary real number.

y Second variable. Vertical axis label.

0.2 ASCII symbols

$*$ Convolution operator. Multiplication operator in most computer programming languages.

% Percentage symbol. Reference to previous output in Mathematica (probably a hidden reference to the musical bis repeat sign). Modulo operator in Basic, C, Java, Javascript, Perl, etc.

0.3 The Greek alphabet

If it seems that the entire Greek alphabet has been overloaded, this is actually not the case. Several uses have been proposed for the more popular letters, but there are other letters with few or no assigned uses. This is also the case of Greek letter that look almost the same as Latin-1 letters, so understandably these are not popular.

δ As δ_S, the silver ratio. As δ_{ij}, or δ^{ij} or δ^i_j, the Kronecker delta. As $\delta(x)$, the Dirac delta function. Transition function for a Turing machine.

ϵ In analysis, an arbitrarily small value. The trivial group representation, or sometimes the identity element in a group.

λ Carmichael function (sometimes ψ is used instead), Liouville function.

Π Iterated product. A set of symbols usable by a Turing machine.

π Ratio of a circle's radius to its circumference. Prime counting function. Totient function in Euler's notebooks.

Σ Iterated sum. A set of symbols usable by a Turing machine.

ϕ Totient function. Golden ratio.