

G Math Functions

Function	Name	Description
abs(x)	Absolute Value	Returns the absolute value of x.
acos(x)	Inverse Cosine	Computes the inverse cosine of x.
acosh(x)	Inverse Hyperbolic Cosine	Computes the inverse hyperbolic cosine of x in radians.
asin(x)	Inverse Sine	Computes the inverse sine of x in radians.
asinh(x)	Inverse Hyperbolic Sine	Computes the inverse hyperbolic sine of x in radians.
atan(x)	Inverse Tangent	Computes the inverse tangent of x in radians.
atanh(x)	Inverse Hyperbolic Tangent	Computes the inverse hyperbolic tangent of x in radians.
ci(x)	Cosine Integral	Computes the cosine integral of x where x is any real number.
ceil(x)	Round to +Infinity	Rounds x to the next higher integer (smallest integer $\geq x$.)
cos(x)	Cosine	Computes the cosine of x in radians.
cosh(x)	Hyperbolic Cosine	Computes the hyperbolic cosine of x in radians.
cot(x)	Cotangent	Computes the cotangent of x in radians ($1/\tan(x)$).
csc(x)	Cosecant	Computes the cosecant of x in radians ($1/\sin(x)$).
exp(x)	Exponential	Computes the value of e raised to the power x.
expm1(x)	Exponential(Arg)-1	Computes the value of e raised to the power of x - 1 ($e^x - 1$)
floor(x)	Round to -Infinity	Truncates x to the next lower integer (Largest integer $\leq x$)
gamma(x)	Gamma Function	$\Gamma(n+1) = n!$ for all natural numbers n.
getexp(x)	Mantissa and exponent	Returns the exponent of x.
getman(x)	Mantissa and exponent	Returns the mantissa of x.
int(x)	Round to nearest integer	Rounds its argument to the nearest even integer.
Intrz(x)	Round toward zero	Rounds x to the nearest integer between x and zero.
ln(x)	Natural Logarithm	Computes the natural logarithm of x (to the base e).
lnp1(x)	Natural Logarithm(Arg + 1)	Computes the natural logarithm of (x + 1).
log(x)	Logarithm Base 10	Computes the logarithm of x (to the base 10).
log2(x)	Logarithm Base 2	Computes the logarithm of x (to the base 2).
pi(x)	Represents the value $\pi = 3.14159\dots$	$pi(x) = x * \pi$ $pi(1) = \pi$ $pi(2.4) = 2.4 * \pi$
rand()	Random Number(0-1)	Produces a floating-point number between 0 and 1.
sec(x)	Secant	Computes the secant of x ($1/\cos(x)$).
si(x)	Sine Integral	Computes the sine integral of x where x is any real number.
sign(x)	Sign	Returns 1 if x is greater than 0. Returns 0 if x is equal to 0. Returns -1 if x is less than 0.
sin(x)	Sine	Computes the sine of x in radians.
sinc(x)	Sinc	Computes the sine of x divided by x in radians ($\sin(x)/x$).
sinh(x)	Hyperbolic Sine	Computes the hyperbolic sine of x in radians.
spike(x)	Spike function	spike(x) returns: 1 if $0 \leq x \leq 1$ and 0 for any other value of x.
sqrt(x)	Square Root	Computes the square root of x.
square(x)	Square function	square (x) returns: 1 if $2n \leq x \leq (2n+1)$ 0 if $(2n+1) \leq x \leq (2n+2)$ where x is any real number and n is any integer.
step(x)	Step function	step(x) returns: 0 if $x < 0$ or 1 otherwise.
tan(x)	Tangent	Computes the tangent of x in radians.
tanh(x)	Hyperbolic Tangent	Computes the hyperbolic tangent of x in radians.