Mathematical Functions (5A)

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General Math Functions

abs	
labs	
llabs	computes absolute value of an integer value
fabs	computes absolute value of a floating point value
div	
ldiv	
lldiv	computes the quotient and remainder of integer division
fmod	remainder of the floating point division operation
remainder	signed remainder of the division operation
remquo	signed remainder as well as the three last bits of the division operation
fma	fused multiply-add operation
fmax	larger of two floating point values
fmin	smaller of two floating point values
fdim	positive difference of two floating point values
nan	
nanf	
nanl	returns a not-a-number (NaN)

Exponential Functions

Exponential functions

exp	returns e raised to the given power
exp2	returns 2 raised to the given power
expm1	returns e raised to the given power, minus one
log	computes natural (base e) logarithm (to base e)
log2	computes common (base 2) logarithm
log10	computes common (base 10) logarithm
log1p	computes natural logarithm (to base e) of 1 plus the given number
ilogb	extracts exponent of the number
logb	extracts exponent of the number

Power Functions

Power functions

sqrt	computes square root
cbrt	computes cubic root
hypot	computes square root of the sum of the squares of two given numbers
pow	raises a number to the given power

Trigonometric Functions

Trigonometric functions

sin	computes sine
cos	computes cosine
tan	computes tangent
asin	computes arc sine
acos	computes arc cosine
atan	computes arc tangent
atan2	computes arc tangent, using signs to determine quadrants

Hyperbolic Functions

Hyperbolic functions

sinh	computes hyperbolic sine
cosh	computes hyperbolic cosine
tanh	computes hyperbolic tangent
asinh	computes hyperbolic arc sine
acosh	computes hyperbolic arc cosine
atanh	computes hyperbolic arc tangent

Error and Gamma Functions

Error and gammafunctions

erf	computes error function
erfc	computes complementary error function
lgamma	computes natural logarithm of the gamma function
tgamma	computes gamma function

Floating Point Manipulation Functions

Floating point manipulation functions

frexp	decomposes a number into significand and a power of 2
ldexp	multiplies a number by 2 raised to a power
modf	decomposes a number into integer and fractional parts
scalbn	
scalbln	multiplies a number by FLT_RADIX raised to a power
nextafter	
nexttoward	returns next representable floating point value towards the given value
copysign	copies the sign of a floating point value

Classification Functions

Classification	
fpclassify	categorizes the given floating point value
isfinite	checks if the given number has finite value
isinf	checks if the given number is infinite
isnan	checks if the given number is NaN
isnormal	checks if the given number is normal
signbit	checks if the given number is negative

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