Rocky Enterprise Linux 9.2 Manual Pages on command 'sinhl.3'

$ man sinhl.3

SINH(3) Linux Programmer's Manual SINH(3)

NAME

sinh, sinhf, sinhl - hyperbolic sine function

SYNOPSIS

#include <math.h>

double sinh(double x);

float sinhf(float x);

long double sinhl(long double x);

Link with -lm.

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

sinhf(), sinhl():

_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L

|| /* Since glibc 2.19: */ _DEFAULT_SOURCE

|| /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE

DESCRIPTION

These functions return the hyperbolic sine of x, which is defined math?

ematically as:

sinh(x) = (exp(x) - exp(-x)) / 2

RETURN VALUE

On success, these functions return the hyperbolic sine of x.

If x is a NaN, a NaN is returned.

If x is +0 (-0), +0 (-0) is returned.

If x is positive infinity (negative infinity), positive infinity (nega?

tive infinity) is returned.

If the result overflows, a range error occurs, and the functions return

HUGE_VAL, HUGE_VALF, or HUGE_VALL, respectively, with the same sign as

x.

ERRORS

See math_error(7) for information on how to determine whether an error

has occurred when calling these functions.

The following errors can occur:

Range error: result overflow

errno is set to ERANGE. An overflow floating-point exception

(FE_OVERFLOW) is raised.

ATTRIBUTES

For an explanation of the terms used in this section, see at?

tributes(7).

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?Interface ? Attribute ? Value ?

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?sinh(), sinhf(), sinhl() ? Thread safety ? MT-Safe ?

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CONFORMING TO

C99, POSIX.1-2001, POSIX.1-2008.

The variant returning double also conforms to SVr4, 4.3BSD, C89.

SEE ALSO

acosh(3), asinh(3), atanh(3), cosh(3), csinh(3), tanh(3)

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A

description of the project, information about reporting bugs, and the

latest version of this page, can be found at

https://www.kernel.org/doc/man-pages/.