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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'tanh.3' command

$ man tanh.3

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

NAME

tanh, tanhf, tanhl - hyperbolic tangent function

SYNOPSIS

```
#include <math.h>

double tanh(double x);

float tanhf(float x);

long double tanhl(long double x);
```

Link with -lm.

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

tanhf(), tanhl():

_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 tangent of x, which is defined mathematically as:

tanh(x) = sinh(x) / cosh(x)

RETURN VALUE

On success, these functions return the hyperbolic tangent 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), +1 (-1) is returned.

ERRORS

No errors occur.

ATTRIBUTES

For an explanation of the terms used in this section, see at? tributes(7).

Interface	Attribute	Value
tanh(), tanhf(), tanhl()	Thread safety	MT-Safe

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), ctanh(3), sinh(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/.