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

$ 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 attributes(7).

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?????????????????????????????????????????????????????
?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/.

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