ASINH(3)

NAME

asinh, asinhf, asinhl - inverse hyperbolic sine function

SYNOPSIS

```
#include <math.h>

double asinh(double x);

float asinhf(float x);

long double asinhl(long double x);
```

Link with -lm.

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

asinh():

_BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE >= 500 || _XOPEN_SOURCE && _XOPEN_SOURCE_EXTENDED || _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L;

or cc -std=c99

asinhf(), **asinhl**():

_BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE >= 600 || _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L;

or cc -std=c99

DESCRIPTION

The **asinh**() function calculates the inverse hyperbolic sine of x; that is the value whose hyperbolic sine is x.

RETURN VALUE

On success, these functions return the inverse 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 (negative infinity) is returned.

ERRORS

No errors occur.

CONFORMING TO

C99, POSIX.1-2001. The variant returning double also conforms to SVr4, 4.3BSD, C89.

SEE ALSO

acosh(3), **atanh**(3), **casinh**(3), **cosh**(3), **sinh**(3), **tanh**(3)

COLOPHON

This page is part of release 3.54 of the Linux man-pages project. A description of the project, and information about reporting bugs, can be found at http://www.kernel.org/doc/man-pages/.