NAME

acosh, **acoshf**, **acoshl** - inverse hyperbolic cosine functions

LIBRARY

Math Library (libm, -lm)

SYNOPSIS

#include <math.h>

double
acosh(*double x*);

float
acoshf(*float x*);

long double
acoshl(*long double x*);

DESCRIPTION

The **acosh**(), **acoshf**(), and **acoshl**() functions compute the inverse hyperbolic cosine of the real argument *x*. For a discussion of error due to roundoff, see math(3).

RETURN VALUES

These functions return the inverse hyperbolic cosine of *x*. If the argument is less than 1, **acosh**() raises an invalid exception and returns an NaN.

SEE ALSO

asinh(3), atanh(3), exp(3), fenv(3), math(3)

HISTORY

The **acosh**(), **acoshf**(), and **acoshl**() functions appeared in 4.3BSD, FreeBSD 2.0, and FreeBSD 10.0, respectively.