

**NAME**

**acos**, **acosf**, **acosl** - arc cosine functions

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

**#include** <math.h>

*double*

**acos**(*double x*);

*float*

**acosf**(*float x*);

*long double*

**acosl**(*long double x*);

**DESCRIPTION**

The **acos**(), **acosf**(), and **acosl**() functions compute the principal value of the arc cosine of  $x$ .

**RETURN VALUES**

These functions return the arc cosine in the range  $[0, \pi]$  radians. If:

$|x| > 1$ ,

**acos**( $x$ ) raises an invalid exception and returns an NaN.

**SEE ALSO**

**asin**(3), **atan**(3), **atan2**(3), **cos**(3), **cosh**(3), **fenv**(3), **math**(3), **sin**(3), **sinh**(3), **tan**(3), **tanh**(3)

**STANDARDS**

The **acos**(), **acosf**(), and **acosl**() functions conform to ISO/IEC 9899:1999 ("ISO C99").