NAME

cbrt, **cbrtf**, **cbrtl**, **sqrt**, **sqrtf**, **sqrtl** - cube root and square root functions

LIBRARY

Math Library (libm, -lm)

SYNOPSIS

#include <math.h>

double
cbrt(*double x*);

float
cbrtf(*float x*);

long double
cbrtl(*long double x*);

double
sqrt(*double x*);

float
sqrtf(*float x*);

long double
sqrtl(*long double x*);

DESCRIPTION

The **cbrt**(), **cbrtf**(), and **cbrtl**() functions compute the cube root of *x*.

The **sqrt**(), **sqrtf**(), and **sqrtl**() functions compute the non-negative square root of *x*.

RETURN VALUES

The **cbrt**(), **cbrtf**(), and **cbrtl**() functions return the requested cube root. The **sqrt**(), **sqrtf**(), and **sqrtl**() functions return the requested square root unless an error occurs. An attempt to take the **sqrt**() of negative *x* raises an invalid exception and causes an NaN to be returned (except that the square root of -0 is valid and equal to -0.)

SEE ALSO

fenv(3), math(3)

STANDARDS

The **cbrt**(), **cbrtf**(), **cbrtl**(), **sqrt**(), **sqrtf**(), and **sqrtl**() functions conform to ISO/IEC 9899:1999 ("ISO C99").

HISTORY

The **cbrt**() function appeared in 4.3BSD. The **sqrt**() function appeared in Version 2 AT&T UNIX. **sqrtl**() function appeared in FreeBSD 8.0. The **cbrtl**() function appeared in FreeBSD 9.0.