

**NAME**

cbirt, cbrtf, cbrtl - cube root function

**SYNOPSIS**

```
#include <math.h>

double cbrt(double x);
float cbrtf(float x);
long double cbrtl(long double x);
```

Link with *-lm*.

Feature Test Macro Requirements for glibc (see [feature\\_test\\_macros\(7\)](#)):

```
cbrt():
    _BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE >= 500 ||
    _XOPEN_SOURCE && _XOPEN_SOURCE_EXTENDED || _ISOC99_SOURCE ||
    _POSIX_C_SOURCE >= 200112L;
    or cc -std=c99

cbrtf(), cbrtl():
    _BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE >= 600 || _ISOC99_SOURCE ||
    _POSIX_C_SOURCE >= 200112L;
    or cc -std=c99
```

**DESCRIPTION**

The **cbrt()** function returns the (real) cube root of *x*. This function cannot fail; every representable real value has a representable real cube root.

**RETURN VALUE**

These functions return the cube root of *x*.

If *x* is +0, -0, positive infinity, negative infinity, or NaN, *x* is returned.

**ERRORS**

No errors occur.

**ATTRIBUTES**

**Multithreading** (see [pthreads\(7\)](#))

The **cbrt()**, **cbrtf()**, and **cbrtl()** functions are thread-safe.

**CONFORMING TO**

C99, POSIX.1-2001.

**SEE ALSO**

[pow\(3\)](#), [sqrt\(3\)](#)

**COLOPHON**

This page is part of release 3.74 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 <http://www.kernel.org/doc/man-pages/>.