

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():

```
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L || _XOPEN_SOURCE >= 500 /* Since
glibc 2.19: */ _DEFAULT_SOURCE /* Glibc versions <= 2.19: */ _BSD_SOURCE ||
_SVID_SOURCE
```

cbrtf(), cbrtl():

```
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L /* Since glibc 2.19: */ _DE-
FAULT_SOURCE /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

These functions return 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

For an explanation of the terms used in this section, see [attributes\(7\)](#).

Interface	Attribute	Value
cbrt() , cbrtf() , cbrtl()	Thread safety	MT-Safe

CONFORMING TO

C99, POSIX.1-2001, POSIX.1-2008.

SEE ALSO

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

COLOPHON

This page is part of release 4.16 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 <https://www.kernel.org/doc/man-pages/>.