

NAME

cbrt, cbrtf, cbrtl – cube root function

LIBRARY

Math library (*libm*, *-lm*)

SYNOPSIS

```
#include <math.h>
```

```
double cbrt(double x);
```

```
float cbrtf(float x);
```

```
long double cbrtl(long double x);
```

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 <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

cbrtf(), cbrtl():

```
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
```

```
|| /* Since glibc 2.19: */ _DEFAULT_SOURCE
```

```
|| /* glibc <= 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 real cube root, and rounding it to a representable value never causes overflow nor underflow.

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

STANDARDS

C11, POSIX.1-2008.

HISTORY

GNU, C99, POSIX.1-2001.

SEE ALSO

pow(3), **sqrt(3)**