

**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 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   |
|---------------------------------|---------------|---------|
| <b>cbrt(), cbrtf(), cbrtl()</b> | Thread safety | MT-Safe |

**STANDARDS**

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

**SEE ALSO**

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