

**NAME**

log2, log2f, log2l - base-2 logarithmic function

**SYNOPSIS**

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

```
double log2(double x);
```

```
float log2f(float x);
```

```
long double log2l(long double x);
```

Link with *-lm*.

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

```
log2(), log2f(), log2l():
```

```
  _XOPEN_SOURCE >= 600 || _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L;  
  or cc -std=c99
```

**DESCRIPTION**

The **log2()** function returns the base 2 logarithm of *x*.

**RETURN VALUE**

On success, these functions return the base 2 logarithm of *x*.

For special cases, including where *x* is 0, 1, negative, infinity, or NaN, see [log\(3\)](#).

**ERRORS**

See [math\\_error\(7\)](#) for information on how to determine whether an error has occurred when calling these functions.

For a discussion of the errors that can occur for these functions, see [log\(3\)](#).

**VERSIONS**

These functions first appeared in glibc in version 2.1.

**CONFORMING TO**

C99, POSIX.1-2001. The variant returning *double* also conforms to SVr4, 4.3BSD.

**SEE ALSO**

[cbrt\(3\)](#), [clog2\(3\)](#), [log\(3\)](#), [log10\(3\)](#), [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/>.