

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():
```

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

DESCRIPTION

These functions return 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.

ATTRIBUTES

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

Interface	Attribute	Value
log2(), log2f(), log2l()	Thread safety	MT-Safe

CONFORMING TO

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

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 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/>.