

**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**

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