

**NAME**

`fabs`, `fabsf`, `fabsl` - absolute value of floating-point number

**SYNOPSIS**

```
#include <math.h>

double fabs(double x);
float fabsf(float x);
long double fabsl(long double x);
```

Link with `-lm`.

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

```
fabsf(), fabsl():
    _BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE >= 600 || _ISOC99_SOURCE ||
    _POSIX_C_SOURCE >= 200112L;
    or cc -std=c99
```

**DESCRIPTION**

These functions return the absolute value of the floating-point number *x*.

**RETURN VALUE**

These functions return the absolute value of *x*.

If *x* is a NaN, a NaN is returned.

If *x* is -0, +0 is returned.

If *x* is negative infinity or positive infinity, positive infinity is returned.

**ERRORS**

No errors occur.

**ATTRIBUTES**

**Multithreading** (see [pthreads\(7\)](#))

The `fabs()`, `fabsf()`, and `fabsl()` functions are thread-safe.

**CONFORMING TO**

C99, POSIX.1-2001. The variant returning *double* also conforms to SVr4, 4.3BSD, C89.

**SEE ALSO**

[abs\(3\)](#), [cabs\(3\)](#), [ceil\(3\)](#), [floor\(3\)](#), [labs\(3\)](#), [rint\(3\)](#)

**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/>.