

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():
```

```
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L || /* Since glibc 2.19: */ _DE-  
FAULT_SOURCE || /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

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

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

Interface	Attribute	Value
<code>fabs()</code> , <code>fabsf()</code> , <code>fabsl()</code>	Thread safety	MT-Safe

CONFORMING TO

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

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 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/>.