

**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: */ _DEFAULT_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
<b>fabs()</b> , <b>fabsf()</b> , <b>fabsl()</b>	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 5.02 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/>.