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### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'fmodl.3'***

#### ***\$ man fmodl.3***

FMOD(3)                   Linux Programmer's Manual                   FMOD(3)

#### NAME

fmod, fmodf, fmodl - floating-point remainder function

#### SYNOPSIS

```
#include <math.h>
```

```
double fmod(double x, double y);
```

```
float fmodf(float x, float y);
```

```
long double fmodl(long double x, long double y);
```

Link with -lm.

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

fmodf(), fmodl():

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

```
|| /* Since glibc 2.19: */ _DEFAULT_SOURCE
```

```
|| /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

#### DESCRIPTION

These functions compute the floating-point remainder of dividing  $x$  by  $y$ . The return value is  $x - n * y$ , where  $n$  is the quotient of  $x / y$ , rounded toward zero to an integer.

## RETURN VALUE

On success, these functions return the value  $x - n*y$ , for some integer  $n$ , such that the returned value has the same sign as  $x$  and a magnitude less than the magnitude of  $y$ .

If  $x$  or  $y$  is a NaN, a NaN is returned.

If  $x$  is an infinity, a domain error occurs, and a NaN is returned.

If  $y$  is zero, a domain error occurs, and a NaN is returned.

If  $x$  is  $+0$  ( $-0$ ), and  $y$  is not zero,  $+0$  ( $-0$ ) is returned.

## ERRORS

See `math_error(7)` for information on how to determine whether an error has occurred when calling these functions.

The following errors can occur:

Domain error:  $x$  is an infinity

`errno` is set to `EDOM` (but see `BUGS`). An invalid floating-point exception (`FE_INVALID`) is raised.

Domain error:  $y$  is zero

`errno` is set to `EDOM`. An invalid floating-point exception (`FE_INVALID`) is raised.

## ATTRIBUTES

For an explanation of the terms used in this section, see `attributes(7)`.

??

?Interface            ? Attribute   ? Value   ?

??

?fmod(), fmodf(), fmodl() ? Thread safety ? MT-Safe ?

??

## CONFORMING TO

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

The variant returning `double` also conforms to SVr4, 4.3BSD, C89.

## BUGS

Before version 2.10, the `glibc` implementation did not set `errno` to `EDOM` when a domain error occurred for an infinite  $x$ .

## SEE ALSO

remainder(3)

## COLOPHON

This page is part of release 5.10 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/>.

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