

NAME

fdim, fdimf, fdiml - positive difference

SYNOPSIS

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

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

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

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

Link with *-lm*.

Feature Test Macro Requirements for glibc (see [feature_test_macros\(7\)](#)):

```
fdimf(), fdiml():
```

```
_XOPEN_SOURCE >= 600 || _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L;  
or cc -std=c99
```

DESCRIPTION

These functions return the positive difference, $\max(x-y,0)$, between their arguments.

RETURN VALUE

On success, these functions return the positive difference.

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

If the result overflows, a range error occurs, and the functions return **HUGE_VAL**, **HUGE_VALF**, or **HUGE_VALL**, respectively.

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:

Range error: result overflow

An overflow floating-point exception (**FE_OVERFLOW**) is raised.

These functions do not set *errno*.

VERSIONS

These functions first appeared in glibc in version 2.1.

ATTRIBUTES

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

The `fdim()`, `fdimf()`, and `fdiml()` functions are thread-safe.

CONFORMING TO

C99, POSIX.1-2001.

SEE ALSO

[fmax\(3\)](#)

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/>.