

**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():
```

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

**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**

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

Interface	Attribute	Value
<code>fdim()</code> , <code>fdimf()</code> , <code>fdiml()</code>	Thread safety	MT-Safe

**CONFORMING TO**

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

**SEE ALSO**

[fmax\(3\)](#)

**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/>.