

NAME

fdim, fdimf, fdiml – positive difference

LIBRARY

Math library (*libm*, *-lm*)

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);
```

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

errno is set to **ERANGE**. An overflow floating-point exception (**FE_OVERFLOW**) is raised.

VERSIONS

These functions were added in glibc 2.1.

ATTRIBUTES

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

Interface	Attribute	Value
fdim() , fdimf() , fdiml()	Thread safety	MT-Safe

STANDARDS

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

BUGS

Before glibc 2.24 on certain architectures (e.g., x86, but not x86_64) these functions did not set *errno*.

SEE ALSO

fmax(3)