

**NAME**

**fdim**, **fdimf**, **fdiml** - positive difference functions

**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);
```

**DESCRIPTION**

The **fdim()**, **fdimf()**, and **fdiml()** functions return the positive difference between  $x$  and  $y$ . That is, if  $x-y$  is positive, then  $x-y$  is returned. If either  $x$  or  $y$  is an NaN, then an NaN is returned. Otherwise, the result is  $+0.0$ .

Overflow or underflow may occur if the exact result is not representable in the return type. No other exceptions are raised.

**SEE ALSO**

[fabs\(3\)](#), [fmax\(3\)](#), [fmin\(3\)](#), [math\(3\)](#)

**STANDARDS**

The **fdim()**, **fdimf()**, and **fdiml()** functions conform to ISO/IEC 9899:1999 ("ISO C99").

**HISTORY**

These routines first appeared in FreeBSD 5.3.