

**NAME**

**erf**, **erff**, **erfl**, **erfc**, **erfcf**, **erfcl** - error function operators

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

**#include** <math.h>

*double*

**erf**(*double x*);

*float*

**erff**(*float x*);

*long double*

**erfl**(*long double x*);

*double*

**erfc**(*double x*);

*float*

**erfcf**(*float x*);

*long double*

**erfcl**(*long double x*);

**DESCRIPTION**

These functions calculate the error function of  $x$ .

The **erf**(), **erff**(), and **erfl**() functions calculate the error function of  $x$ ; where

$$\text{erf}(x) = 2/\sqrt{\pi} * \int_0^x \exp(-t^2) dt.$$

The **erfc**(), **erfcf**(), and **erfcl**() functions calculate the complementary error function of  $x$ ; that is **erfc**() subtracts the result of the error function **erf**( $x$ ) from 1.0.

**SEE ALSO**

math(3)

**HISTORY**

The `erf()` and `erfc()` functions appeared in 4.3BSD.