

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)

STANDARDS

The **erf()**, **erff()**, **erfl()**, **erfc()**, **erfcf()** and **erfcl()** functions conform to ISO/IEC 9899:1999 ("ISO C99").

HISTORY

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