

**NAME**

**nearbyint**, **nearbyintf**, **nearbyintl**, **rint**, **rintf**, **rintl** - round to integral value in floating-point format

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

**#include** <math.h>

*double*

**nearbyint**(*double x*);

*float*

**nearbyintf**(*float x*);

*long double*

**nearbyintl**(*long double x*);

*double*

**rint**(*double x*);

*float*

**rintf**(*float x*);

*long double*

**rintl**(*long double x*);

**DESCRIPTION**

The **rint**(), **rintf**(), and **rintl**() functions return the integral value nearest to *x* according to the prevailing rounding mode. These functions raise an inexact exception when the original argument is not an exact integer.

The **nearbyint**(), **nearbyintf**(), and **nearbyintl**() functions perform the same operation, except that they do not raise an inexact exception.

**SEE ALSO**

abs(3), ceil(3), fabs(3), fenv(3), floor(3), ieee(3), lrint(3), lround(3), math(3), round(3)

**STANDARDS**

These functions conform to ISO/IEC 9899:1999 ("ISO C99").

**HISTORY**

A **rint()** function appeared in Version 6 AT&T UNIX. The **nearbyint()** and **nearbyintf()** functions appeared in FreeBSD 5.3, and the long double variants were first available in FreeBSD 8.0.