NAME

nearbyint, nearbyintl, rint, rintl, 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.