

**NAME**

**llrint**, **llrintf**, **llrintl**, **lrint**, **lrintf**, **lrintl** - convert to integer

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

**#include** <math.h>

*long long*

**llrint**(*double x*);

*long long*

**llrintf**(*float x*);

*long long*

**llrintl**(*long double x*);

*long*

**lrint**(*double x*);

*long*

**lrintf**(*float x*);

*long*

**lrintl**(*long double x*);

**DESCRIPTION**

The **lrint**() function returns the integer nearest to its argument *x* according to the current rounding mode. If the rounded result is too large to be represented as a *long* value, an invalid exception is raised and the return value is undefined. Otherwise, if *x* is not an integer, **lrint**() raises an inexact exception. When the rounded result is representable as a *long*, the expression **lrint**(*x*) is equivalent to *(long)lrint*(*x*) (although the former may be more efficient).

The **llrint**(), **llrintf**(), **llrintl**(), **lrintf**(), and **lrintl**() functions differ from **lrint**() only in their input and output types.

**SEE ALSO**

**lround**(3), **math**(3), **rint**(3), **round**(3)

**STANDARDS**

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

**HISTORY**

The **llrint()**, **llrintf()**, **lrint()**, and **lrintf()** routines first appeared in FreeBSD 5.4. The long double variants were introduced in FreeBSD 8.0.