

**NAME**

**ldexp**, **ldexpf**, **ldexpl** - multiply floating-point number by integral power of 2

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

```
#include <math.h>
```

*double*

```
ldexp(double x, int exp);
```

*float*

```
ldexpf(float x, int exp);
```

*long double*

```
ldexpl(long double x, int exp);
```

**DESCRIPTION**

The **ldexp()**, **ldexpf()**, and **ldexpl()** functions multiply a floating-point number by an integral power of 2.

**RETURN VALUES**

These functions return the value of  $x$  times 2 raised to the power  $exp$ .

**SEE ALSO**

`frexp(3)`, `math(3)`, `modf(3)`

**STANDARDS**

The **ldexp()**, **ldexpf()**, and **ldexpl()** functions conform to ISO/IEC 9899:1999 ("ISO C99").