```
double scalbn(double x, int n);
float scalbnf(float x, int n);
long double scalbnl(long double x, int n);
double scalbln(double x, long int n);
float scalblnf(float x, long int n);
long double scalblnl(long double x, long int n);
```

exp2
expm1

In additional to new versions of `exp`, `frexp`, `ldexp`, `log`, `log10`, and `modf`, there are several entirely new functions in this category. Two of these, `exp2` and `expm1`, are variations on the `exp` function. When applied to the argument `x`, the `exp2` function returns 2^x, and `expm1` returns $e^x - 1$.

Q&A

logb
ilogb
log1p
log2

The `logb` function returns the exponent of its argument. More precisely, the call `logb(x)` returns $\log_r(|x|)$, where r is the radix of floating-point arithmetic (defined by the macro `FLT_RADIX`, which typically has the value 2). The `ilogb` function returns the value of `logb` after it has been cast to `int` type. The `log1p` function returns ln(1 + x) when given `x` as its argument. The `log2` function computes the base-2 logarithm of its argument.

scalbn
scalbln

The `scalbn` function returns $x \times \texttt{FLT\_RADIX}^n$, which it computes in an efficient way (not by explicitly raising `FLT_RADIX` to the nth power). `scalbln` is the same as `scalbn`, except that its second parameter has type `long int` instead of `int`.

Power and Absolute Value Functions

```
double cbrt(double x);
float cbrtf(float x);
long double cbrtl(long double x);

float fabsf(float x);                                   see fabs
long double fabsl(long double x);                       see fabs

double hypot(double x, double y);
float hypotf(float x, float y);
long double hypotl(long double x, long double y);

float powf(float x, float y);                           see pow
long double powl(long double x,
                 long double y);                        see pow

float sqrtf(float x);                                   see sqrt
long double sqrtl(long double x);                       see sqrt
```

Several functions in this group are new versions of old ones (`fabs`, `pow`, and `sqrt`). Only the functions `cbrt` and `hypot` (and their variants) are entirely new.

cbrt

The `cbrt` function computes the cube root of its argument. The `pow` function can also be used for this purpose, but `pow` is unable to handle negative arguments