

**NAME**

**scalb**, **scalbf**, **significand**, **significandf** - IEEE test functions

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

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

*double*

```
scalb(double x, double n);
```

*float*

```
scalbf(float x, float n);
```

*double*

```
significand(double x);
```

*float*

```
significandf(float x);
```

**DESCRIPTION**

These functions allow users to test conformance to IEEE Std 754-1985. Their use is not otherwise recommended.

**scalb**(*x*, *n*) and **scalbf**(*x*, *n*) return  $x \cdot (2^{**n})$  computed by exponent manipulation. If *n* is not an integer, +-infinity, or an NaN, the result is unspecified.

**significand**(*x*) and **significandf**(*x*) return *sig*, where  $x := sig \cdot 2^{**n}$  with  $1 \leq sig < 2$ . **significand**(*x*) and **significandf**(*x*) are not defined when *x* is 0, +-infinity, or NaN.

**SEE ALSO**

ieee(3), math(3)

**STANDARDS**

IEEE Std 754-1985