



## ***Rocky Enterprise Linux 9.2 Manual Pages on command 'sin.3'***

**C:\>man sin.3**

SIN(3)                   Linux Programmer's Manual                   SIN(3)

### NAME

sin, sinf, sinl - sine function

### SYNOPSIS

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

```
double sin(double x);
```

```
float sinf(float x);
```

```
long double sinl(long double x);
```

Link with -lm.

Feature Test Macro Requirements for glibc (see feature\_test\_macros(7)):

sinf(), sinl():

```
  _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
```

```
  /* Since glibc 2.19: */ _DEFAULT_SOURCE
```

```
  /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

### DESCRIPTION

These functions return the sine of x, where x is given in radians.

### RETURN VALUE

On success, these functions return the sine of x.

If x is a NaN, a NaN is returned.

If x is positive infinity or negative infinity, a domain error occurs, and a NaN is returned.

### ERRORS

See `math_error(7)` for information on how to determine whether an error has occurred when calling these functions.

The following errors can occur:

Domain error: `x` is an infinity

`errno` is set to `EDOM` (but see `BUGS`). An invalid floating-point exception (`FE_INVALID`) is raised.

## ATTRIBUTES

For an explanation of the terms used in this section, see `attributes(7)`.

??

?Interface ? Attribute ? Value ?

??

?`sin()`, `sinf()`, `sinl()` ? Thread safety ? MT-Safe ?

??

## CONFORMING TO

C99, POSIX.1-2001, POSIX.1-2008.

The variant returning double also conforms to SVr4, 4.3BSD, C89.

## BUGS

Before version 2.10, the glibc implementation did not set `errno` to `EDOM` when a domain error occurred.

## SEE ALSO

`acos(3)`, `asin(3)`, `atan(3)`, `atan2(3)`, `cos(3)`, `csin(3)`, `sincos(3)`, `tan(3)`

## COLOPHON

This page is part of release 5.05 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.