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

**\$ man asin.3**

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

NAME

asin, asinf, asinl - arc sine function

SYNOPSIS

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

```
double asin(double x);
```

```
float asinf(float x);
```

```
long double asinl(long double x);
```

Link with -lm.

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

asinf(), asinl():

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

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

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

DESCRIPTION

These functions calculate the principal value of the arc sine of x; that is the value whose sine is x.

RETURN VALUE

On success, these functions return the principal value of the arc sine of x in radians; the return value is in the range  $[-\pi/2, \pi/2]$ .

If x is a NaN, a NaN is returned.

If x is +0 (-0), +0 (-0) is returned.

If x is outside the range  $[-1, 1]$ , 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 outside the range  $[-1, 1]$

    errno is set to EDOM. 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   ?

????????????????????????????????????????????????????????????

?asin(), asinf(), asinl() ? Thread safety ? MT-Safe ?

????????????????????????????????????????????????????????????

## CONFORMING TO

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

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

## SEE ALSO

`acos(3)`, `atan(3)`, `atan2(3)`, `casin(3)`, `cos(3)`, `sin(3)`, `tan(3)`

## COLOPHON

This page is part of release 5.10 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/>.