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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'asinh.3' command**

**\$ man asinh.3**

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

### NAME

asinh, asinhf, asinhl - inverse hyperbolic sine function

### SYNOPSIS

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

```
double asinh(double x);
```

```
float asinhf(float x);
```

```
long double asinhl(long double x);
```

Link with -lm.

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

asinh():

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

```
|| _XOPEN_SOURCE >= 500
```

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

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

asinhf(), asinhl():

```
_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 inverse hyperbolic sine of x; that is the value whose hyperbolic sine is x.

### RETURN VALUE

On success, these functions return the inverse hyperbolic sine of x.

If x is a NaN, a NaN is returned.

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

If x is positive infinity (negative infinity), positive infinity (negative infinity) is returned.

#### ERRORS

No errors occur.

#### ATTRIBUTES

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

??

?Interface           ? Attribute   ? Value   ?

??

?asinh(), asinhf(), asinhl() ? Thread safety ? MT-Safe ?

??

#### CONFORMING TO

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

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

#### SEE ALSO

acosh(3), atanh(3), casinh(3), cosh(3), sinh(3), tanh(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/>.