



Rocky Enterprise Linux 9.2 Manual Pages on command 'finitel.3'

\$ man finitel.3

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

NAME

finite, finitef, finitel, isinf, isinff, isinfl, isnan, isnanf, isnanl

- BSD floating-point classification functions

SYNOPSIS

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

```
int finite(double x);
```

```
int finitef(float x);
```

```
int finitel(long double x);
```

```
int isinf(double x);
```

```
int isinff(float x);
```

```
int isinfl(long double x);
```

```
int isnan(double x);
```

```
int isnanf(float x);
```

```
int isnanl(long double x);
```

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

```
finite(), finitef(), finitel():
```

```
/* Glibc since 2.19: */ _DEFAULT_SOURCE
```

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

isinf():

```
_XOPEN_SOURCE >= 600 || _ISOC99_SOURCE
```

```
|| /* Glibc since 2.19: */ _DEFAULT_SOURCE
```

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

isinff(), isinfl():

```
/* Glibc since 2.19: */ _DEFAULT_SOURCE
```

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

isnan():

```
_XOPEN_SOURCE || _ISOC99_SOURCE
```

```
|| /* Glibc since 2.19: */ _DEFAULT_SOURCE
```

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

isnanf(), isnanl():

```
_XOPEN_SOURCE >= 600
```

```
|| /* Glibc since 2.19: */ _DEFAULT_SOURCE
```

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

DESCRIPTION

The `finite()`, `finitef()`, and `finitel()` functions return a nonzero value if `x` is neither infinite nor a "not-a-number" (NaN) value, and 0 otherwise.

The `isnan()`, `isnanf()`, and `isnanl()` functions return a nonzero value if `x` is a NaN value, and 0 otherwise.

The `isinf()`, `isinff()`, and `isinfl()` functions return 1 if `x` is positive infinity, -1 if `x` is negative infinity, and 0 otherwise.

ATTRIBUTES

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

??

?Interface ? Attribute ? Value ?

??

?finite(), finitef(), finitel(), ? Thread safety ? MT-Safe ?

?isinf(), isinff(), isinfl(), ? ? ?

?isnan(), isnanf(), isnanl() ? ? ?

??

NOTES

Note that these functions are obsolete. C99 defines macros `isfinite()`, `isinf()`, and `isnan()` (for all types) replacing them. Further note that the C99 `isinf()` has weaker guarantees on the return value. See `fpclassify(3)`.

SEE ALSO

`fpclassify(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/>.

2017-09-15

FINITE(3)