



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'finite.3' command

\$ man finite.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
```

isinf(), 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(), finitf(), 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(), finitf(), finitel(), isnan(), isnanf(), isnanl(), isinf(), isinff(), isinfl()	Thread safety	MT-Safe
isinf(), isinff(), isinfl(), isnan(), isnanf(), isnanl()		
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 fpclas?

sify(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/>.

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