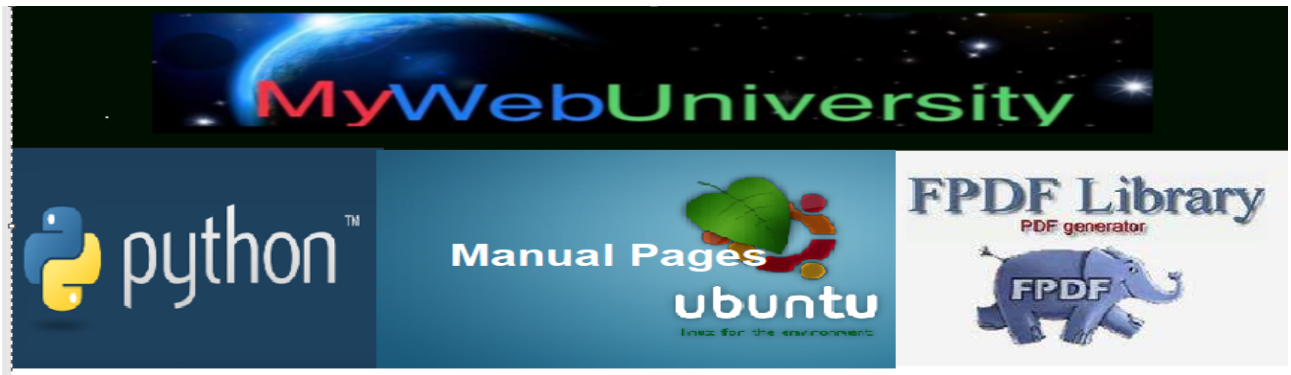

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Linux Ubuntu 26.04 Manual Pages on command 'isunordered.3'

$ man isunordered.3

isgreater(3) Library Functions Manual isgreater(3)

NAME

isgreater, isgreaterequal, isless, islessequal, islessgreater, isunordered - floating-point relational tests without exception for NaN

LIBRARY

Math library (libm, -lm)

SYNOPSIS

```
#include <math.h>

int isgreater(x, y);

int isgreaterequal(x, y);

int isless(x, y);

int islessequal(x, y);

int islessgreater(x, y);

int isunordered(x, y);
```

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

All functions described here:

_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L

DESCRIPTION

The normal relational operations (like <, "less than") fail if one of the operands is NaN. This will cause an exception. To avoid this, C99 defines the macros listed below. These macros are guaranteed to evaluate their arguments only once. The arguments must be of real floating-point type (note: do not pass integer values as arguments to these macros, since the arguments will not be promoted to real-floating types).

isgreater()

determines (x) > (y) without an exception if x or y is NaN.

isgreaterequal()

determines (x) >= (y) without an exception if x or y is NaN.

isless()

determines (x) < (y) without an exception if x or y is NaN.

islessequal()

determines (x) <= (y) without an exception if x or y is NaN.

islessgreater()

determines (x) < (y) || (x) > (y) without an exception if x or y is NaN. This macro is not equivalent to x != y because that expression is true if x or y is NaN.

isunordered()

determines whether its arguments are unordered, that is, whether at least one of the arguments is a NaN.

RETURN VALUE

The macros other than isunordered() return the result of the relational comparison; these macros return 0 if either argument is a NaN.

isunordered() returns 1 if x or y is NaN and 0 otherwise.

ERRORS

No errors occur.

ATTRIBUTES

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

Interface	Attribute	Value
isgreater(), isgreaterequal(), isless(), islessequal(), islessgreater(), isunordered()	Thread safety	MT-Safe

VERSIONS

Not all hardware supports these functions, and where hardware support isn't provided, they will be emulated by macros. This will result in a performance penalty. Don't use these functions if NaN is of no concern for you.

STANDARDS

C11, POSIX.1-2008.

HISTORY

POSIX.1-2001, C99.

SEE ALSO

fpclassify(3), isnan(3)