NAME

isgreater, **isgreaterequal**, **isless**, **islessequal**, **islessgreater**, **isunordered** - compare two floating-point numbers

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#include <math.h>

int
isgreater(*real-floating x*, *real-floating y*);

int
isgreaterequal(*real-floating x*, *real-floating y*);

int
isless(*real-floating x*, *real-floating y*);

int
islessequal(*real-floating x*, *real-floating y*);

int
islessgreater(*real-floating x*, *real-floating y*);

int
isunordered(*real-floating x*, *real-floating y*);

DESCRIPTION

Each of the macros **isgreater**(), **isgreaterequal**(), **isless**(), **islessequal**(), and **islessgreater**() take arguments *x* and *y* and return a non-zero value if and only if its nominal relation on *x* and *y* is true. These macros always return zero if either argument is not a number (NaN), but unlike the corresponding C operators, they never raise a floating point exception.

The **isunordered**() macro takes arguments *x* and *y* and returns non-zero if and only if any of *x* or *y* are NaNs. For any pair of floating-point values, one of the relationships (less, greater, equal, unordered) holds.

SEE ALSO

fpclassify(3), math(3), signbit(3)

STANDARDS

The **isgreater**(), **isgreaterequal**(), **isless**(), **islessequal**(), **islessgreater**(), and **isunordered**() macros conform to ISO/IEC 9899:1999 ("ISO C99").

HISTORY

The relational macros described above first appeared in FreeBSD 5.1.