

NAME

INFINITY, NAN, HUGE_VAL, HUGE_VALF, HUGE_VALL - floating-point constants

SYNOPSIS

```
#define _ISOC99_SOURCE /* See feature\_test\_macros\(7\)
*/
#include <math.h>
```

INFINITY

NAN

HUGE_VAL

HUGE_VALF

HUGE_VALL

DESCRIPTION

The macro **INFINITY** expands to a *float* constant representing positive infinity.

The macro **NAN** expands to a *float* constant representing a quiet NaN (when supported). A *quiet* NaN is a NaN (not-a-number) that does not raise exceptions when it is used in arithmetic. The opposite is a *signaling* NaN. See IEC 60559:1989.

The macros **HUGE_VAL**, **HUGE_VALF**, **HUGE_VALL** expand to constants of types *double*, *float* and *long double*, respectively, that represent a large positive value, possibly positive infinity.

CONFORMING TO

C99.

AVAILABILITY

On a glibc system, the macro **HUGE_VAL** is always available. Availability of the **NAN** macro can be tested using `#ifdef NAN`, and similarly for **INFINITY**, **HUGE_VALF**, **HUGE_VALL**. They will be defined by `<math.h>` if `_ISOC99_SOURCE` or `_GNU_SOURCE` is defined, or `__STDC_VERSION__` is defined and has a value not less than 199901L.

SEE ALSO

[fpclassify\(3\)](#), [math_error\(7\)](#)

COLOPHON

This page is part of release 3.74 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 <http://www.kernel.org/doc/man-pages/>.