



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

\$ man NaN.3

INFINITY(3) Library Functions Manual INFINITY(3)

NAME

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

LIBRARY

Math library (libm)

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.

STANDARDS

C11.

HISTORY

C99.

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)`

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`INFINITY(3)`