



Linux Ubuntu 26.04 Manual Pages on command 'powerof2.3'

\$ man powerof2.3

powerof2(3) Library Functions Manual powerof2(3)

NAME

powerof2 - test if a value is a power of 2

LIBRARY

Standard C library (libc)

SYNOPSIS

```
#include <sys/param.h>
```

```
int powerof2(x);
```

DESCRIPTION

This macro returns true if x is a power of 2, and false otherwise.

0 is considered a power of 2. This can make sense considering wrapping of unsigned integers, and has interesting properties.

RETURN VALUE

True or false, if x is a power of 2 or not, respectively.

STANDARDS

BSD.

CAVEATS

The arguments may be evaluated more than once.

Because this macro is implemented using bitwise operations, some negative values can invoke undefined behavior. For example, the following invokes undefined behavior:

powerof2(INT_MIN);. Call it only with unsigned types to be safe.

SEE ALSO

stdc_bit_ceil(3), stdc_bit_floor(3)

