



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

\$ man div.3

div(3) Library Functions Manual div(3)

NAME

div, ldiv, lldiv, imaxdiv - compute quotient and remainder of an integer division

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <stdlib.h>

div_t div(int numerator, int denominator);

ldiv_t ldiv(long numerator, long denominator);

lldiv_t lldiv(long long numerator, long long denominator);

#include <inttypes.h>

imaxdiv_t imaxdiv(intmax_t numerator, intmax_t denominator);
```

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

```
lldiv():
    _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
```

DESCRIPTION

The `div()` function computes the value `numerator/denominator` and returns the quotient and remainder in a structure named `div_t` that contains two integer members (in unspecified order) named `quot` and `rem`. The quotient is rounded toward zero. The result satisfies `quot*denominator+rem = numerator`.

The `ldiv()`, `lldiv()`, and `imaxdiv()` functions do the same, dividing numbers of the indicated type and returning the result in a structure of the indicated name, in all cases with fields `quot` and `rem` of the same type as the function arguments.

RETURN VALUE

The `div_t` (etc.) structure.

ATTRIBUTES

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

[illegible]

? Interface ? Attribute ? Value ?

[illegible]

? div(), ldiv(), lldiv(), imaxdiv() ? Thread safety ? MT-Safe ?

[illegible]

STANDARDS

C11, POSIX.1-2008.

HISTORY

POSIX.1-2001, C89, C99, SVr4, 4.3BSD.

lldiv() and imaxdiv() were added in C99.

EXAMPLES

After

div_t q = div(-5, 3);

the values `q.quot` and `q.rem` are -1 and -2, respectively.

SEE ALSO

abs(3), remainder(3)

Linux man-pages 6.17

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div(3)