



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'div.3' command

\$ man div.3

DIV(3) Linux Programmer's Manual DIV(3)

NAME

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

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 at?

`tributes(7)`.

??

?Interface ? Attribute ? Value ?

??

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

??

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C89, C99, SVr4, 4.3BSD. The functions `ll?`

`div()` 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)`

COLOPHON

This page is part of release 5.10 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

<https://www.kernel.org/doc/man-pages/>.

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