

NAME

`cexp`, `cexpf`, `cexpl` - complex exponential function

SYNOPSIS

```
#include <complex.h>
```

```
double complex cexp(double complex z);
```

```
float complex cexpf(float complex z);
```

```
long double complex cexpl(long double complex z);
```

Link with `-lm`.

DESCRIPTION

The function calculates e (2.71828..., the base of natural logarithms) raised to the power of z .

One has:

$$cexp(I * z) = ccos(z) + I * csin(z)$$
VERSIONS

These functions first appeared in glibc in version 2.1.

CONFORMING TO

C99.

SEE ALSO

[cabs\(3\)](#), [cexp2\(3\)](#), [clog\(3\)](#), [cpow\(3\)](#), [complex\(7\)](#)

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/>.