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

\$ man clog.3

clog(3)

Library Functions Manual

clog(3)

NAME _____

clog, clogf, clogl - natural logarithm of a complex number

LIBRARY

Math library (libm, -lm)

SYNOPSIS

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

```
double complex clog(double complex z);
```

```
float complex clogf(float complex z);
```

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

DESCRIPTION

These functions calculate the complex natural logarithm of z , with a branch cut along the negative real axis.

The logarithm `clog()` is the inverse function of the exponential `cexp(3)`. Thus, if $y = \text{clog}(z)$, then $z = \text{cexp}(y)$. The imaginary part of y is chosen in the interval $[-\pi, \pi]$.

One has:

$$\text{clog}(z) = \log(\text{cabs}(z)) + i * \text{carg}(z)$$

Note that z close to zero will cause an overflow.

ATTRIBUTES

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

[illegible]

?	Interface	?	Attribute	?	Value	?
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[illegible]

