



Linux Ubuntu 26.04 Manual Pages on command 'atan2.3'

\$ man atan2.3

atan2(3) Library Functions Manual atan2(3)

NAME

atan2, atan2f, atan2l - arc tangent function of two variables

LIBRARY

Math library (libm, -lm)

SYNOPSIS

```
#include <math.h>

double atan2(double y, double x);

float atan2f(float y, float x);

long double atan2l(long double y, long double x);
```

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

```
atan2f(), atan2l():

    _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
    || /* Since glibc 2.19: */ _DEFAULT_SOURCE
    || /* glibc <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

These functions calculate the principal value of the arc tangent of y/x , using the signs of the two arguments to determine the quadrant of the result.

RETURN VALUE

On success, these functions return the principal value of the arc tangent of y/x in radians;

the return value is in the range $[-\pi, \pi]$.

If y is $+0$ (-0) and x is less than 0, $+\pi$ ($-\pi$) is returned.

If y is $+0$ (-0) and x is greater than 0, $+0$ (-0) is returned.

