

**NAME**

**atan**, **atanf**, **atanl** - arc tangent functions of one variable

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

**#include** <math.h>

*double*

**atan**(*double x*);

*float*

**atanf**(*float x*);

*long double*

**atanl**(*long double x*);

**DESCRIPTION**

The **atan**(), **atanf**(), and **atanl**() functions compute the principal value of the arc tangent of  $x$ .

**RETURN VALUES**

These functions return the arc tangent in the range  $[-\pi/2, +\pi/2]$  radians.

**SEE ALSO**

acos(3), asin(3), atan2(3), cos(3), cosh(3), math(3), sin(3), sinh(3), tan(3), tanh(3)

**STANDARDS**

The **atan**(), **atanf**(), and **atanl**() functions conform to ISO/IEC 9899:1999 ("ISO C99").