C library function - acos()

Description

The C library function **double acos(double x)** returns the arc cosine of **x** in radians.

Declaration

Following is the declaration for acos() function.

```
double acos(double x)
```

Parameters

- **x** − This is the floating point value in the interval [-1,+1].

Return Value

This function returns principal arc cosine of x, in the interval [0, pi] radians.

Example

The following example shows the usage of acos() function.

```
#include <stdio.h>
#include <math.h>

#define PI 3.14159265

int main () {
   double x, ret, val;

   x = 0.9;
   val = 180.0 / PI;

   ret = acos(x) * val;
   printf("The arc cosine of %lf is %lf degrees", x, ret);

   return(0);
}
```

Let us compile and run the above program that will produce the following result −

```
The arc cosine of 0.900000 is 25.855040 degrees
```