C library function - cos()

Description

The C library function **double cos(double x)** returns the cosine of a radian angle **x**.

Declaration

Following is the declaration for cos() function.

```
double cos(double x)
```

Parameters

- **x** − This is the floating point value representing an angle expressed in radians.

Return Value

This function returns the cosine of x.

Example

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

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

#define PI 3.14159265

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

   x = 60.0;
   val = PI / 180.0;
   ret = cos( x*val );
   printf("The cosine of %lf is %lf degrees\n", x, ret);

   x = 90.0;
   val = PI / 180.0;
   ret = cos( x*val );
   printf("The cosine of %lf is %lf degrees\n", x, ret);

   return(0);
}
```

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

```
The cosine of 60.000000 is 0.500000 degrees
The cosine of 90.000000 is 0.000000 degrees
```