

## C library function - sin()

### Description

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

### Declaration

Following is the declaration for sin() function.

```
double sin(double x)
```

### Parameters

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

### Return Value

This function returns sine of x.

### Example

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

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

#define PI 3.14159265

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

    x = 45.0;
    val = PI / 180;
    ret = sin(x*val);
    printf("The sine of %lf is %lf degrees", x, ret);

    return(0);
}
```

Let us compile and run the above program to produce the following result –

```
The sine of 45.000000 degrees is 0.707107
```