

C library function - exp()

Description

The C library function **double exp(double x)** returns the value of **e** raised to the **xth** power.

Declaration

Following is the declaration for exp() function.

```
double exp(double x)
```

Parameters

- **x** – This is the floating point value.

Return Value

This function returns the exponential value of x.

Example

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

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

int main () {
    double x = 0;

    printf("The exponential value of %lf is %lf\n", x, exp(x));
    printf("The exponential value of %lf is %lf\n", x+1, exp(x+1));
    printf("The exponential value of %lf is %lf\n", x+2, exp(x+2));

    return(0);
}
```

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

```
The exponential value of 0.000000 is 1.000000
The exponential value of 1.000000 is 2.718282
The exponential value of 2.000000 is 7.389056
```