

C++ Math abs()

The function finds the absolute value of a given number.

Suppose a number is '**x**':

```
abs(x) = |x|;
```

Difference between abs() and fabs()

The abs() function does not support float or double type arguments while fabs() function supports float, double as well as integer type arguments.

Syntax

```
int abs( int x);  
long int abs(long int x );  
long long int abs(long long int x);
```

Parameter

x: The value whose absolute value is to be determined.

Return value

It returns the absolute value of x.

Example 1

Let's see the simple example when the value of x is negative.

```
#include <iostream>
#include<math.h>
using namespace std;
int main()
{
    int x= -9;
    std::cout << "Value of x is : " <<x<< std::endl;
    cout<<"Absolute value of x is : "<<abs(x);

    return 0;
}
```

Output:

```
Value of x is :-9
Absolute value of x is : 9
```

In this example, abs() function computes the absolute value of x and returns the value 9.

Example 2

Let's see the simple example when the value of x is positive.

```
#include <iostream>
#include<math.h>
using namespace std;
int main()
{
    int x= 89;
    std::cout << "Value of x is : " <<x<< std::endl;
    cout<<"Absolute value of x is : "<<abs(x);
    return 0;
}
```

Output:

```
Value of x is :89
Absolute value of x is : 89
```