

## Math Library

To use mathematical functions such as Power, Square Root, Round, Floor, Sine, Cosine, and Tangent you must include the cmath library using `#include <cmath>`.

Note that Sine, Cosine, and Tangent accept their values in Radians not Degrees.

```
//  
//  cmath examples  
//  
  
#include <cmath>  
#include <iostream>  
using namespace std;  
  
int main()  
{  
    cout << "power 3^2 = " << pow(3, 2) << endl;  
    cout << "square root of 9 = " << sqrt(9) << endl;  
    cout << endl;  
  
    float fl = 99.55;  
    cout << "round(" << fl << ") = " << round(fl) << endl;  
    cout << "floor(" << fl << ") = " << floor(fl) << endl;  
    cout << endl;  
  
    const double PI = 3.14159;  
    double degrees = 35;  
    double radians = degrees*PI/180;  
  
    cout << "PI = " << PI << endl;  
    cout << "sin(" << degrees << "°) = " << sin(radians) << endl;  
    cout << "cos(" << degrees << "°) = " << cos(radians) << endl;  
    cout << "tan(" << degrees << "°) = " << tan(radians) << endl;  
  
    return 0;  
}
```