Chapter 3- lab assignment

Note: Submit your assignment in the drop box "chapter 3 assignment" **Ravi Patel**

Part 2:

1. Use for loop to generate the Fibonacci values of all numbers less than n ,

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 …

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, ….

See Chapter 3 Assignment Part 1 Already Submitted

2. (5 pts) Use for loop to find the y value of the following:

```
//CPSC 230 RAVI PATEL FOR LOOP SUMMATION
#include <iostream>

using namespace std;
int main(int argc, char *argv[]) {
    double sum = 0;
    double x = 0;
    for (int i = 0; i <= 5; i++)
    {
        cout << "What is x: ";
        cin >> x;
        sum += x*x;
    }
    cout << "Sum = " << sum;
}

//SAMPLE OUTPUT:
//What is x: 1
//What is x: -1
//What is x: 1
//What is x: -1
//What is x: 1
//What is x: -1
//Sum = 6
```

3. (5 pts) Modify the sin(x) program in the power point notes to find cos(x)

```
//CPSC 230 RAVI PATEL COS(X)
#include <cmath>
#include <iostream>

#define PI      3.1415926535  /* pi */

using namespace std;

int main(int argc, char *argv[]) {

int n, i, j, f(1), k(1);

double x, sum;

     x = 30; n = 10;

     x = x*PI /180;

     cout << cos(x)<<endl;

     sum = x;

     for (i = 3; i < n; i+=2)

     {

     f = 1;

     for (j = 2; j <= i; j++)  f *= j;

     sum += pow(-1, k) * pow(x, 2*i) / 2*f;

     k = k+1;

          }

     cout << sum << endl;

          return 0;

     }
```

//OUTPUT:
//0.866025
//1.84884