

Fop Lab Task 6

Name: Hafiz Mufassir Amjad

CMS ID: 456049

Section: B

TASK 1

```
#include <iostream>

using namespace std;

int main()
{
    int sum = 0, length;
    int num1 = 0, num2 = 1;

    cout<<"Enter length of the sequence: ";
    cin>>length;
    sum = num1 + num2;
    cout<<num1<<"<<num2<<"<<sum<<"<<"<<";

    for (int i = 0; i<length-3; i++) {
        num1 = num2;
        num2 = sum;
        sum = num1 + num2;
        for (int j = 0; j<1; j++) {
            cout<<sum<<"<<"<<";
        }
    }
}
```

Output

```
Enter length of the sequence: 8
0, 1, 1, 2, 3, 5, 8, 13,
Process returned 0 (0x0)   execution time : 10.328 s
Press any key to continue.
```

TASK 2

```
#include <iostream>

using namespace std;

int main()
{
    int rows;

    cout << "Enter the number of rows for Pascal's triangle: ";
    cin >> rows;

    for (int i = 0; i < rows; i++) {
        int num = 1;

        for (int j = 0; j < rows - i; j++) {
            cout << " ";
        }

        for (int k = 0; k <= i; k++) {
            cout << " " << num;
            num = num * (i - k) / (k + 1);
        }

        cout << endl;
    }
}
```

Output

```
Enter the number of rows for Pascal's triangle: 8
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1

Process returned 0 (0x0)   execution time : 4.315 s
Press any key to continue.
```