NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

CS-114- FUNDAMENTAL OF PROGRAMMING

LAB MANUAL 6

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LAB TASKS

TASK 1:

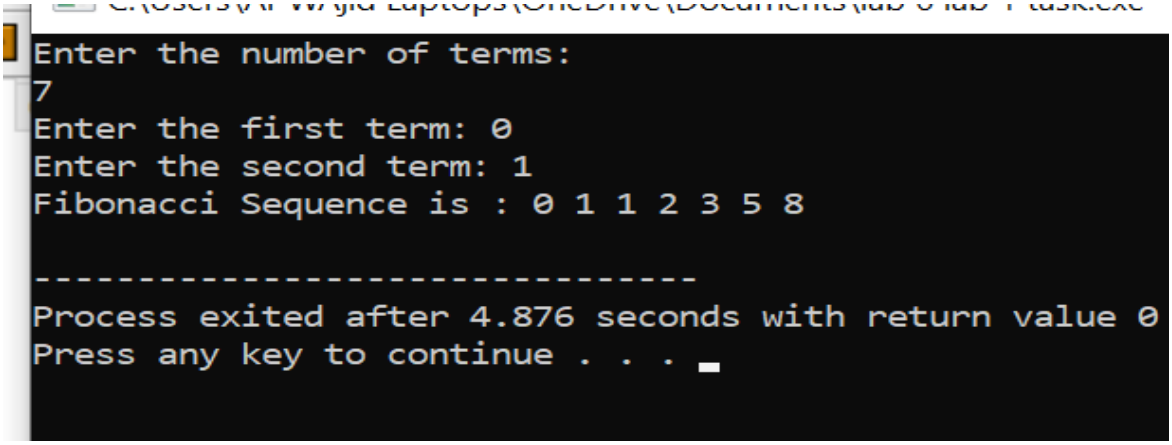
Generate the Fibonacci sequence

CODE:

```
#include <iostream>
using namespace std;
int main() {
   int n;
  int first, second;
   cout << "Enter the number of terms: " <<endl;
   cin >> n;
cout << "Enter the first term: ";
   cin >> first;
cout << "Enter the second term: ";
   cin >> second;
   cout << "Fibonacci Sequence is : ";

   for (int i = 0; i <n; i++) {
      cout << first << " ";

      int sum = first + second;
      first = second;
      second = sum;
   }
cout << endl;

   return 0;
```

}

RESULT:



TASK 2:

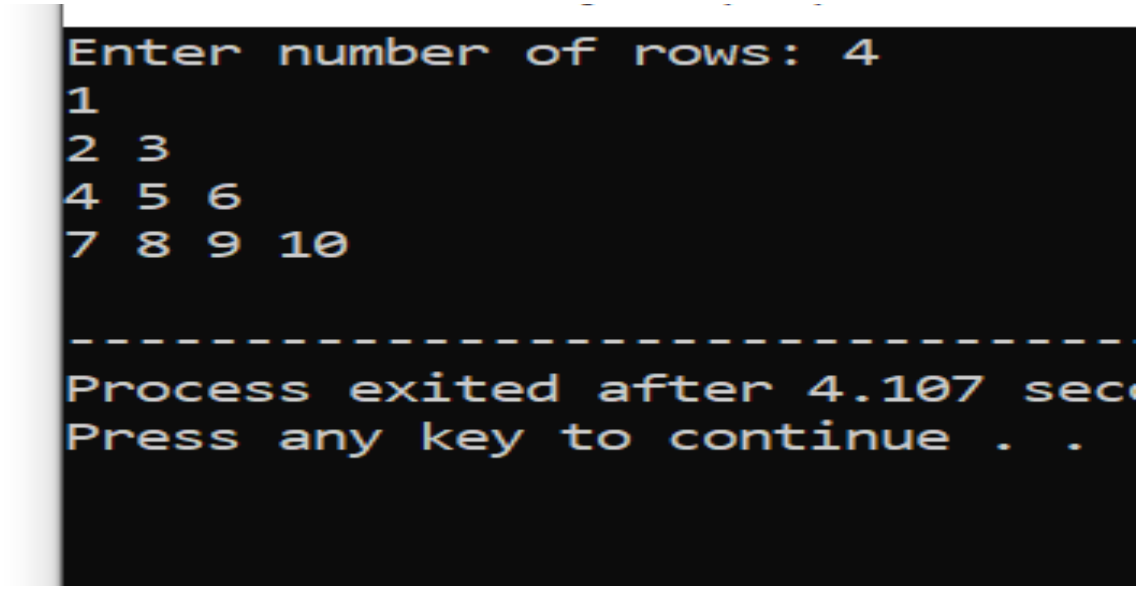
Create Flyod's triangle with nested loops.

CODE:

```
#include <iostream>

using namespace std;


int main() {


   int rows, num = 1;


   cout << "Enter number of rows: ";

   cin >> rows;


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

      for(int j = 1; j <= i; j++) {

         cout << num << " ";

         num ++;

      }
```

```
        cout << endl;
    }


    return 0;
}
```

RESULT:



HOME TASKS

TASK 1:

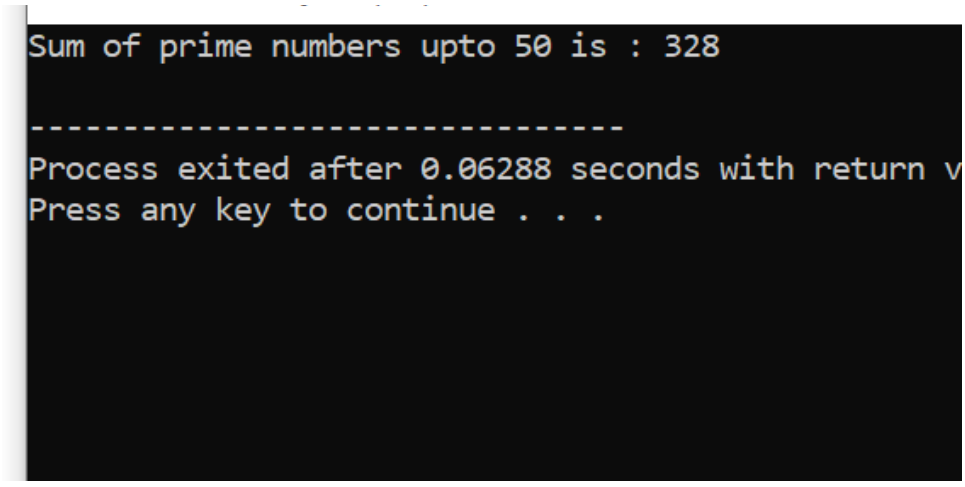
Write a program using break or continue statement that only adds prime numbers from 1 to 50 and display the sum on screen.

CODE:

```
#include <iostream>
using namespace std;
int main (){
int n = 50;
int result= 0;
int check = 1;
```

```
for (int i = 2; i<=50; i++) {
check = 1;
for (int j = 2; j<i; j++) {
if (i%j==0) {
check = 0;
break;
}
}
   if (check){
          result = result +i;
}
}
cout <<"Sum of prime numbers upto 50 is : " <<result<<endl;
return 0;
}
```

RESULT:



TASK 2:

. Write a program in C++ to create the following pattern.

1

1 2

1 2 3

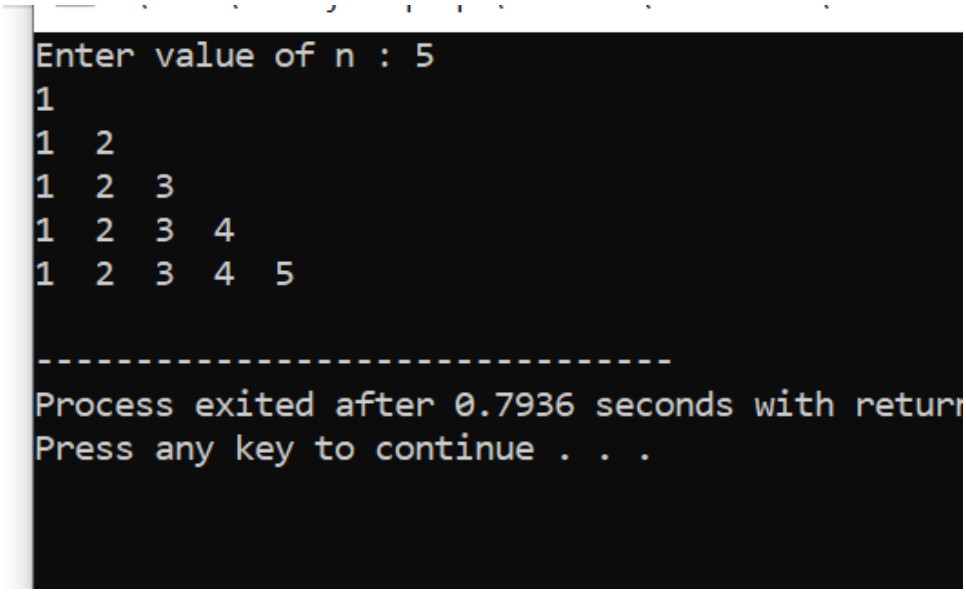
1 2 3 4

1 2 3 4 5

CODE:

```
#include <iostream>
using namespace std;
int main()
{
int i,j;
int n ;
cout <<"Enter value of n : ";
cin>>n;
for (i=1; i<=n; i++){
for (j=1; j<=i; j++){
cout <<j<<"  ";
}
cout <<endl;
}
return 0;
}
```

RESULT:



TASK 3:

Write a C++ program to print:

1

2 2

4 4 4 4

6 6 6 6 6 6

CODE:

```
#include <iostream>

using namespace std;

int main()

{

   int first_num = 1;

int i,j;

int n ;

cout <<"Enter value of n : ";

cin>>n;

cout<< first_num <<endl;

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

for (j=1; j<=i; j+=1){
```

```
cout <<i<<"  ";

}

cout <<endl;

}

return 0;

}
```

RESULT: