

## HW2\_P5 - Print number pattern

---

Student name :	Carter Hawks
Student email :	ckh170000@utdallas.edu
Class name :	2336.001_F18
Submitted on :	Sep 16, 2018 07:30 am

solution.cpp

```
/* Problem Analysis
```

```
Given a number, we have to print rows of numbers counting to the  
    given number, starting with just the first one.
```

```
*/
```

```
/* Problem Design
```

1. Iterate the number of times N, as to create that many rows
2. Iterate the number of times based on the current row count
3. Print out the numbers from 1 to row number  
 For example, on row number 3, we will print all numbers 1 to 3  
 separated by a space.

```
*/
```

```
#include<iostream>
```

```
#include<cstdio>
```

```
using namespace std;
```

```
void pattern(int N){
```

```
    //write your code here
```

```
    // controls # of rows printed
```

```
    for(int i = 1; i <= N; i++){
```

```
        // controls #'s printed in each row
```

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

```
            cout << j;
```

```
            // do not add delimiter space if it is the end of the line
```

```
            if(j < i){
```

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

```
            }
```

```
        }
        // go to the next line
        cout << endl;
    }

}

//Your program will be evaluated by this main method and several test cases.
int main(){
    int N;
    cin >> N;
    pattern(N);
}
```

---

**Name**

Custom test case

**Input**

7

**Output (Lines:8)**

1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5  
1 2 3 4 5 6  
1 2 3 4 5 6 7

**Expected Output (Lines:0)****Status**

NA

---

**Name**

Custom test case

**Input**

10

**Output (Lines:11)**

1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5  
1 2 3 4 5 6  
1 2 3 4 5 6 7  
1 2 3 4 5 6 7 8  
1 2 3 4 5 6 7 8 9  
1 2 3 4 5 6 7 8 9 10

**Expected Output (Lines:0)**

**Status**

NA

---

**Name**

Custom test case

**Input**

5

**Output (Lines:6)**

1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5

**Expected Output (Lines:0)**

**Status**

NA

---

**Name**

Default

**Input**

5

**Output (Lines:6)**

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

**Expected Output (Lines:5)**

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

**Status**

Pass

---