Number Pattern

Problem Description: You are given with an input number N, then you have to print the given star pattern corresponding to that number N.
For example, if N=4
Pattern output:

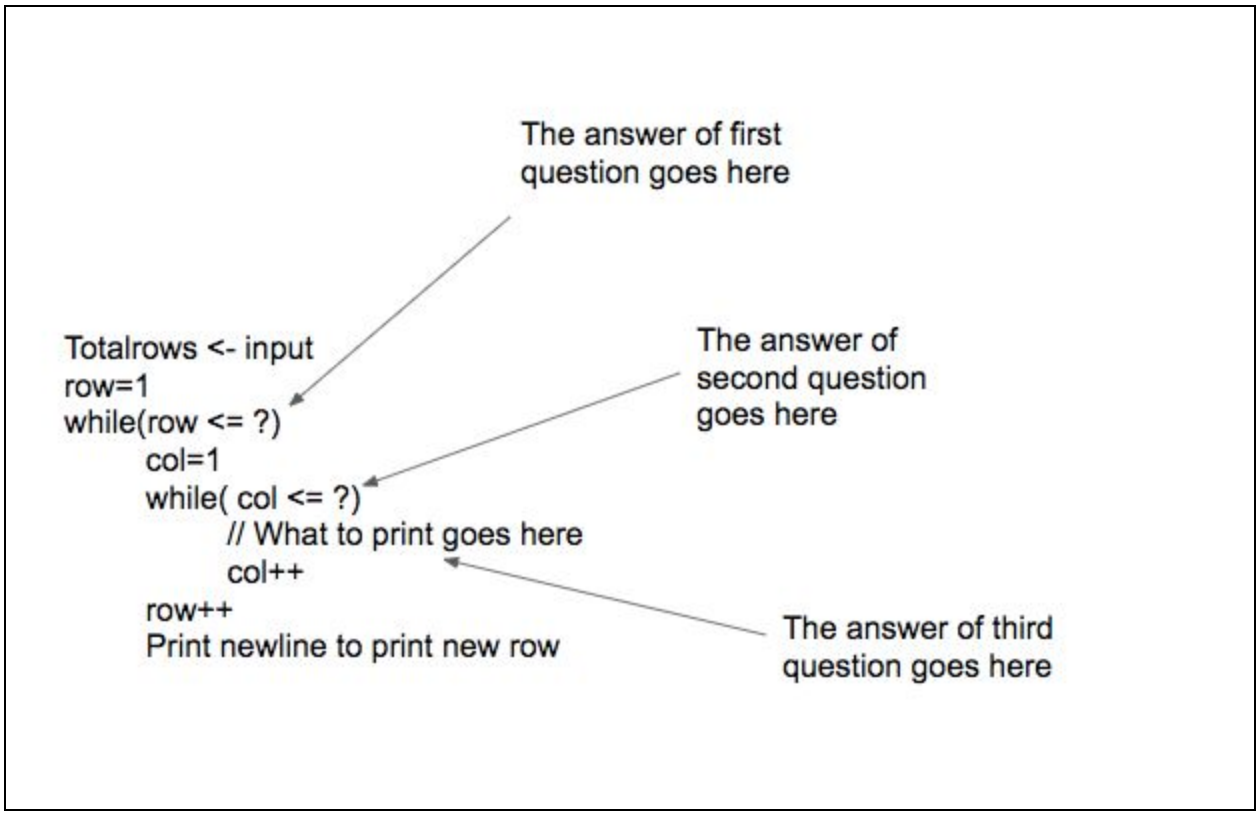
```
1          1
12        21
123     321
12344321
```

For N=5, the pattern output would be:

```
1              1
12            21
123         321
1234     4321
1234554321
```

Generic approach to solve pattern questions:

1. For solving pattern questions, you have to answer three questions. The first question is how many rows are to be printed in the given pattern.
2. The second question is how many columns are to be printed in a generic row of the given pattern.
3. The third question is what to print at generic row and generic column location.
4. The answer to these questions form the basis of implementing a pattern.
5. The generic structure of code, after answering these three questions, looks like this:



Answers to these three questions for the given pattern are:

1. The number of rows to be printed are given as input in N.
2. It can be clearly seen that each row has the same number of columns, which is 2*N.
3. In this pattern, we have to print three things: increasing numbers, spaces and decreasing numbers

   For any generic row r and generic column c,

   a. Increasing numbers start from 1 and is written on columns: [1, r]
   b. space is printed on columns: [r+1, 2*n-r]
   c. Decreasing numbers start from r and is written on remaining columns

Pseudo code for the given problem:

```
input=N
i=1
while i is less than or equal to N:
        j=1
        num1=1
        num2=i
        while j is less than or equal to N:
                If (j <= i)
```

Print num1

num1++

*Else if (j>= (i+1) && j <= 2*n-i)*

Print “ ”

Else

Print num2

num2--

Increment j by 1

Increment i by 1

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