

## Triangle Star 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 : \*

```
  **
 ***
****
```

### How to approach?

1. Take N as input from the user.
2. Figure out the number of rows, (which is N here) and run a loop for that.
3. Now, figure out how many columns are there in ith row and run a loop for that within this.
4. Now, figure out “What to print?” in a particular (row, column). Here we have to print “\*”.

Pseudo code for the given problem:

*input=N*

*i=1*

*While i is less than or equal to N:*

*j=1*

*While j is less than or equal to i:*

*print(“”\*)*

*Increment j by 1*

*Increment i by 1*

*Add a new line here*

❑ Let us dry run the Code for N=4

- $i=1(≤4)$ 
  - ➔  $j=1(≤1)$ , so print “””
  - ➔  $j=2(>1)$ , move out of the inner loop with a new line
- $i=2(≤4)$

- $j=1$  ( $\leq 2$ ), so print “\*”
- $j=2$  ( $\leq 2$ ), so print “\*”
- $j=3$  ( $> 2$ ), move out of the inner loop with a new line

- $i=3$  ( $\leq 4$ )
  - $j=1$  ( $\leq 3$ ), so print “\*”
  - $j=2$  ( $\leq 3$ ), so print “\*”
  - $j=3$  ( $\leq 3$ ), so print “\*”
  - $j=4$  ( $> 3$ ), move out of the inner loop with a new line
- $i=4$  ( $\leq 4$ )
  - $j=1$  ( $\leq 4$ ), so print “\*”
  - $j=2$  ( $\leq 4$ ), so print “\*”
  - $j=3$  ( $\leq 4$ ), so print “\*”
  - $j=4$  ( $\leq 4$ ), so print “\*”
  - $j=5$  ( $> 4$ ), move out of the inner loop with a new line
- $i=5$  ( $> 4$ ), move out of the loop

So , final output:

```
*  
**  
***  
****
```