

Print stars in a single line.

fixed.

⑫ → i/p → ⑤

★ ★ ★ ★ ★

③

★ ★ ★

⑦

★ ★ ★ ★ ★ ★ ★

Sys ( " ★ ★ ★ ★ ★ " )

```
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        for(int i = 1; i <= n; i++){
            System.out.print("★");
        }

    }
}
```

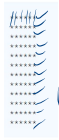
## Pattern 2 - Print n x 12 star rectangle

Take n as an integer input and then print a star rectangle such that each line has n stars.

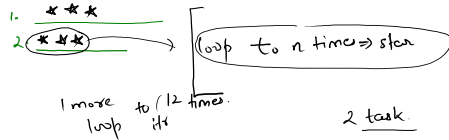
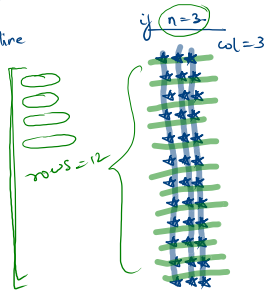
Also, there are 12 such lines.

✓

Sample Output



Star → star → line  
12 lines.



Statement: -

We have to print 12 rows & in each row we have to print n stars.

```
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        int rows = 12;
        int cols = n;

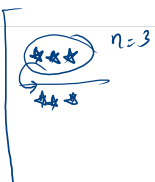
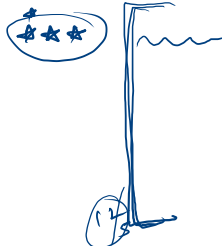
        for(int r = 1; r <= rows; r++){
            //do your task for each row
            for(int c = 1; c <= cols; c++){
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```

rows = 12  
cols = 3

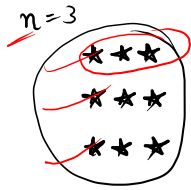
r = 1      1 ≤ 5  
C = 1



Concept



# Pattern 3 - nxn star rectangle



$$\frac{n \times n}{r \times c}$$

$n$

```
for (int i=1; i<=n; i++)
{
    sys.out.print("*");
}
```

1st loop

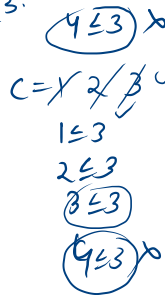
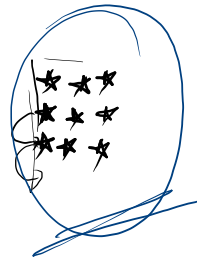
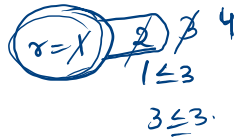
2nd loop

```
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

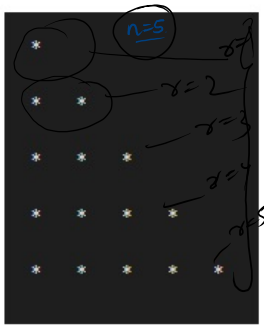
        for(int r = 1; r <= n; r++){
            for(int c = 1; c <= n; c++){
                System.out.print("*");
            }
            System.out.println();
        }
    }
}
```



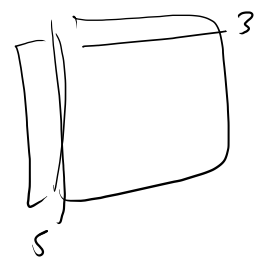
$n=3$



no. of row = no. of stars in each row.



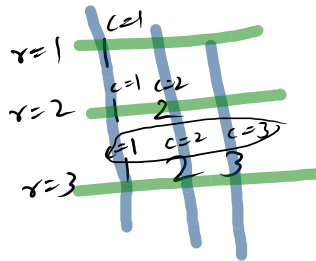
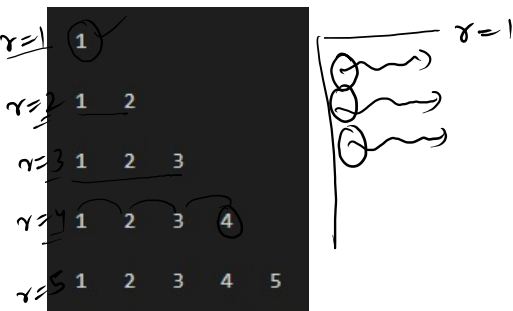
```
for ( r = [1] rows. )
  for (            )
  {
              
  }
```



5

- ①
- ②
- ③

# GKSTR17 Pattern 2



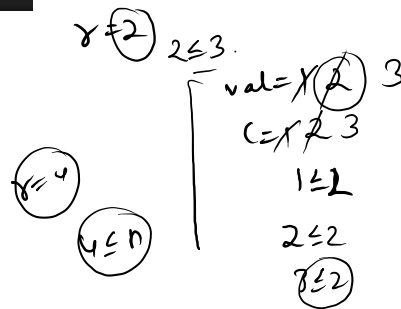
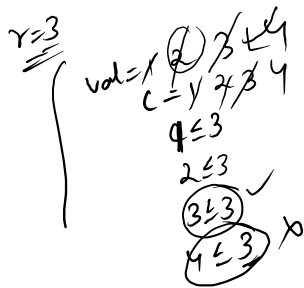
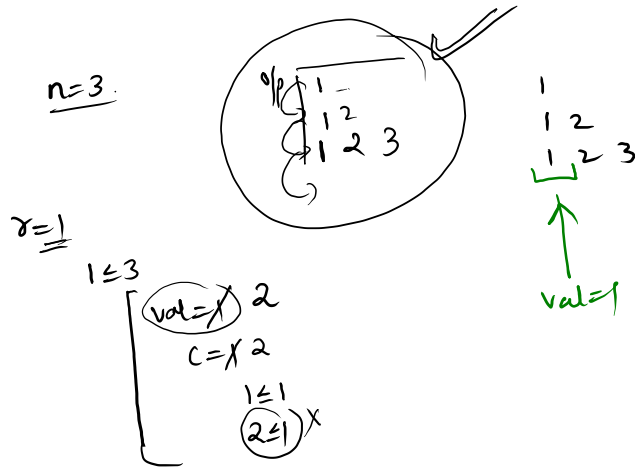
```

import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        for(int r = 1; r <= n; r++){
            int val = 1;
            for(int c = 1; c <= r; c++){
                System.out.print(val + " ");
                val++;
            }
            System.out.println();
        }
    }
}
  
```



no. of rows =  $n$

i/p  $\rightarrow n=5$

```
for(int rows = 1; rows <= n; rows++){
    int spaces = n-rows;
    int stars = rows;
}
```

1<sup>st</sup> row

$n-1 \Rightarrow @/"/$

$1 = \text{star}$

$n-3 \Rightarrow @/"/$

$3 \Rightarrow \text{star}$

2<sup>nd</sup> row

$n-2 \Rightarrow @/"/$

$2 = \text{star}$

4<sup>th</sup> row

$n-4 \Rightarrow @/"/$

$4 = \text{star}$

5<sup>th</sup> row  
 $n-5 \Rightarrow @/"/$   
 $5 = \text{star}$

rows

spaces

stars

$n=5$

$n - \text{rows}$

$5-1=4$

4 space 1 star

row=1

row=2

row=3

row=4

row=5

```
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();
```

```
for(int rows = 1; rows <= n; rows++){
    int spaces = n-rows;
    int stars = rows;
    for(int csp = 1; csp <= spaces; csp++){
        System.out.print(" ");
    }
    for(int cst = 1; cst <= stars; cst++){
        System.out.print("*");
    }
    System.out.println();
}
```

n rows

Diagram showing the pattern of stars and spaces for n=5 rows. The pattern is a right-angled triangle of stars, with spaces filling the rest of each row to maintain a total width of 5 characters.

## Pattern 6 - Right triangle of 5 multiples

5					
5	10				
5	10	15			
5	10	15	20		
5	10	15	20	25	
5	10	15	20	25	30

5

$\Leftrightarrow$

★					
★	★				
★	★	★			
★	★	★	★		
★	★	★	★	★	
★	★	★	★	★	★

5

$\Leftrightarrow$

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

5

```
public static void main(String[] args) {  
    Scanner scn = new Scanner(System.in);  
    int n = scn.nextInt();  
  
    for(int r = 1; r <= n; r++){  
        int val = 5;  
        for(int c = 1; c <= r; c++){  
            System.out.print(val + " ");  
            val += 5;  
        }  
        System.out.println();  
    }  
}
```

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