

Pattern 7 - Print a hollow m by n star rectangle.

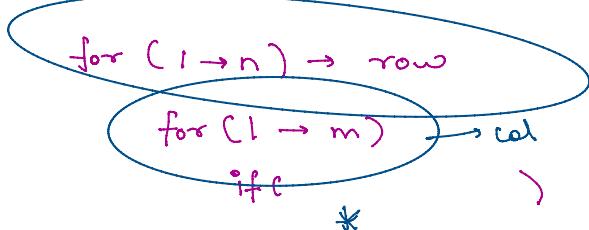
Problem Submissions Leaderboard Discussions

Take m and n as an integer input, then print a hollow m by n star rectangle.

Then print hollow star rectangle which has m stars in the first line and m stars in the nth line.

There rectangle should have n lines

and in every line in between should have only first star and then the nth star.



```

Scanner scn = new Scanner(System.in);
int m = scn.nextInt(); // col
int n = scn.nextInt(); // row

for(int i=1 ; i<=n ; i++){
    for(int j =1; j<=m ; j++){
        if(i==1 || i==n || j==1 || j==m)
            System.out.print("*");
        else{
            System.out.print(" ");
        }
    }
    System.out.println();
}
    
```

$n=5$

$i=1, i=n, j=3$

H

* * * * *

* * * *

* * *

* * *

$i=1$ * * * *
 $i=3$ * * * *
 $i=n$ * * * *

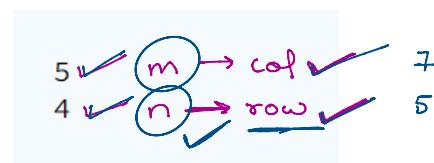
$j=1$

$j \downarrow \rightarrow col$

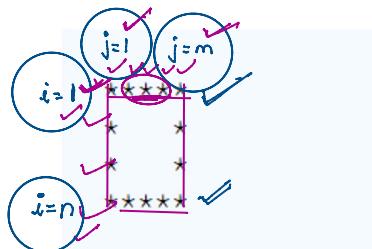
	1	2	3	4	5
1	*	*	*	*	*
2			*		
3					
4					
5	*	*	*	*	*

$i \rightarrow 1$
 $\text{row} \rightarrow 3$
 $\rightarrow j \quad \text{col} \quad \text{inner}$

Sample Input 0



Sample Output 0



$i=1 \quad j=m$

$i=3$

* * *
* * *
* * *
* * *
* * *

5

$i=1, i=3, i=n$

$j=1$

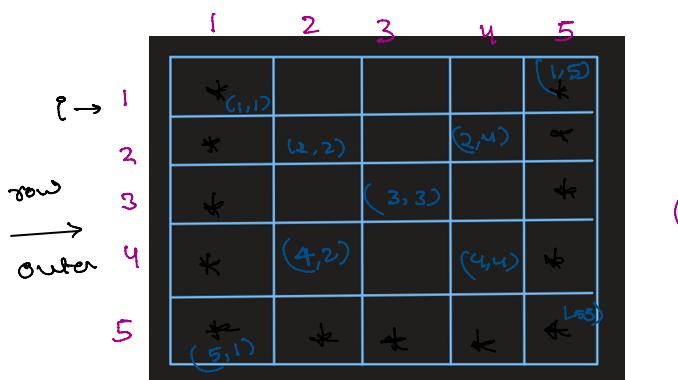
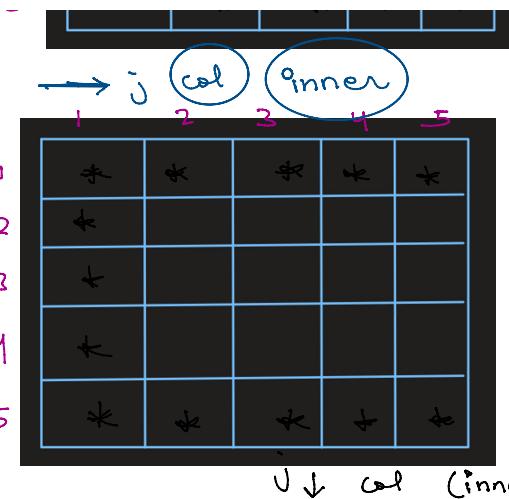
$i=1$ * * * *
 $i=3$ * * * *
 $i=n$ * * * *

5×5

$i=1 \quad i=n \quad j=3$

H

$i=1 \quad i=n \quad j=1 \quad c$



5
Sample Output

j_1	j_2	j_3	j_4	j_5
↓	↓	↓	↓	↓
$i_1 \rightarrow$	*			*
$i_2 \rightarrow$	*			*
$i_3 \rightarrow$	*			*
$i_4 \rightarrow$	*			*
$i_5 \rightarrow$	*	*	*	*

```

Scanner scn = new Scanner(System.in);
int n = scn.nextInt(); // row 5

for(int i=1 ; i<=n ; i++){
    for(int j=1 ; j<=n ; j++){
        if( i==n || j==1 || j==n ){
            System.out.print("*");
        }else{
            System.out.print(" ");
        }
    }
}
System.out.println();
}
    
```

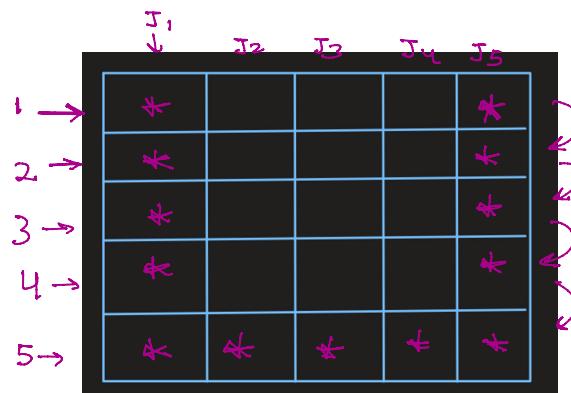
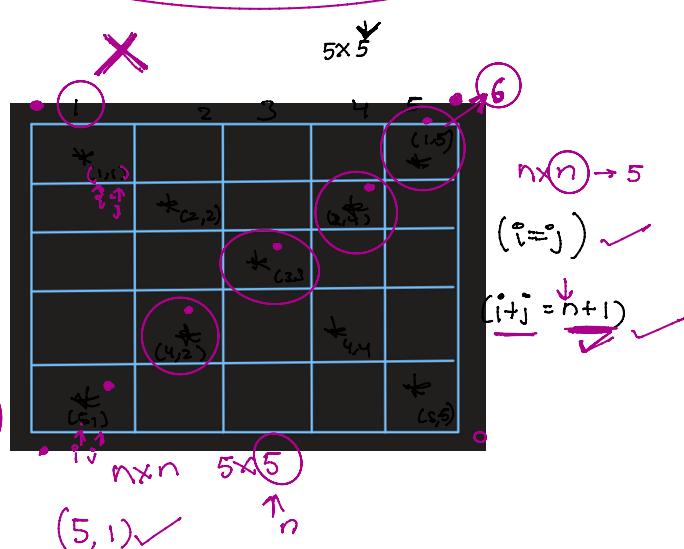
$$i=1 \quad i=n \quad i=1 - c$$

$$j=1, i=m, i=n \rightarrow v$$

l

$$j=1, i=m, i=n \rightarrow v$$

$$(i=j) \text{ or } (i+j = n+1)$$



```

Scanner scn = new Scanner(System.in);
int n = scn.nextInt(); // row
X → Pattern
for(int i=1 ; i<=n ; i++){
    for(int j =1; j<=n ; j++){
        if( i==j || i+j==n+1 ){
            System.out.print("*");
        }else{
            System.out.print(" ");
        }
    }
    System.out.println();
}

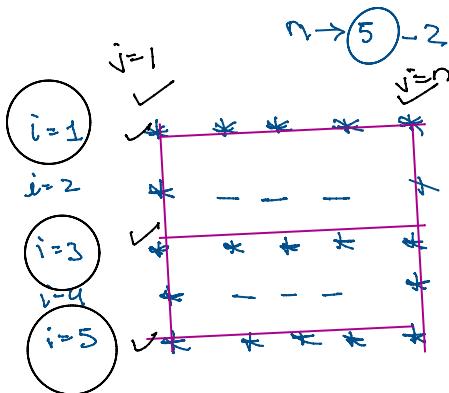
```

Pattern 9 - Square Ladder with top and bottom $n \times n$

Problem Submissions Leaderboard Discussions

Take n as an integer input, then

print n tab separated stars in the first line,
then in the second line print a star, then $n-2$ tabs, then print a star.
then print n tab separated stars in the third line
then in the fourth line print a star, then $n-2$ tabs, then print a star.



$$\checkmark (i \% 2 == 1 \text{ || } j == 1 \text{ || } j == n)$$



```

Scanner scn =new Scanner(System.in);
int n = scn.nextInt(); 5
for(int i=1; i<=n;i++){ 5
    for(int j=1 ; j<=n ; j++){
        if(i%2==1 || j==1 || j==n){
            System.out.print("*\t");
        }else{
    }
}

```

Memory reg

	1	2	3	4	5
1	*	*	*	*	*
2	*	-	-	-	*
3	*	*	*	*	*
4	*	-	-	-	*

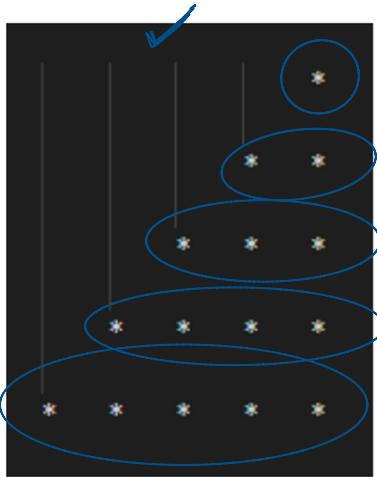
```

        System.out.print("*\t");
    }else{
        System.out.print("\t");
    }
}

System.out.println();
}

```

*	*	*	*	*
*	-	-	-	*
*	*	*	*	*



```

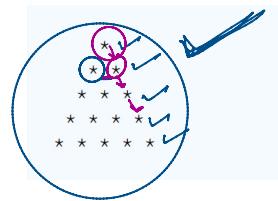
Scanner scn = new Scanner(System.in);
int n = scn.nextInt();
int star = 1;
int space = n-1;
for(int i = 1 ; i<=n ; i++){
    for(int j =1; j<= space; j++){
        System.out.print(" ");
    }
    for(int k=1; k<=star; k++){
        System.out.print("*");
    }
    System.out.println();
    star++;
    space--;
}

```

Sample Input 0

5

Sample Output 0



```

Scanner scn = new Scanner(System.in);
int n = scn.nextInt(); → 5
int star = 1;
int space = n-1; ✓ 4 ✓
for(int i = 1; i<=n ; i++){
    for(int j =1; j<= space; j++){ 3
        System.out.print(" ");
    }
    for(int j=1; j<=star; j++){ ✓ 3
        System.out.print("* ");
    }
    System.out.println();
    star++;
    space--; ✓
}

```

1 →	-	-	-	-	*
2 →	-	-	-	-	*
3 →	-	-	*	*	*
4 →	-	*	*	*	*
5 →	*	*	*	*	*

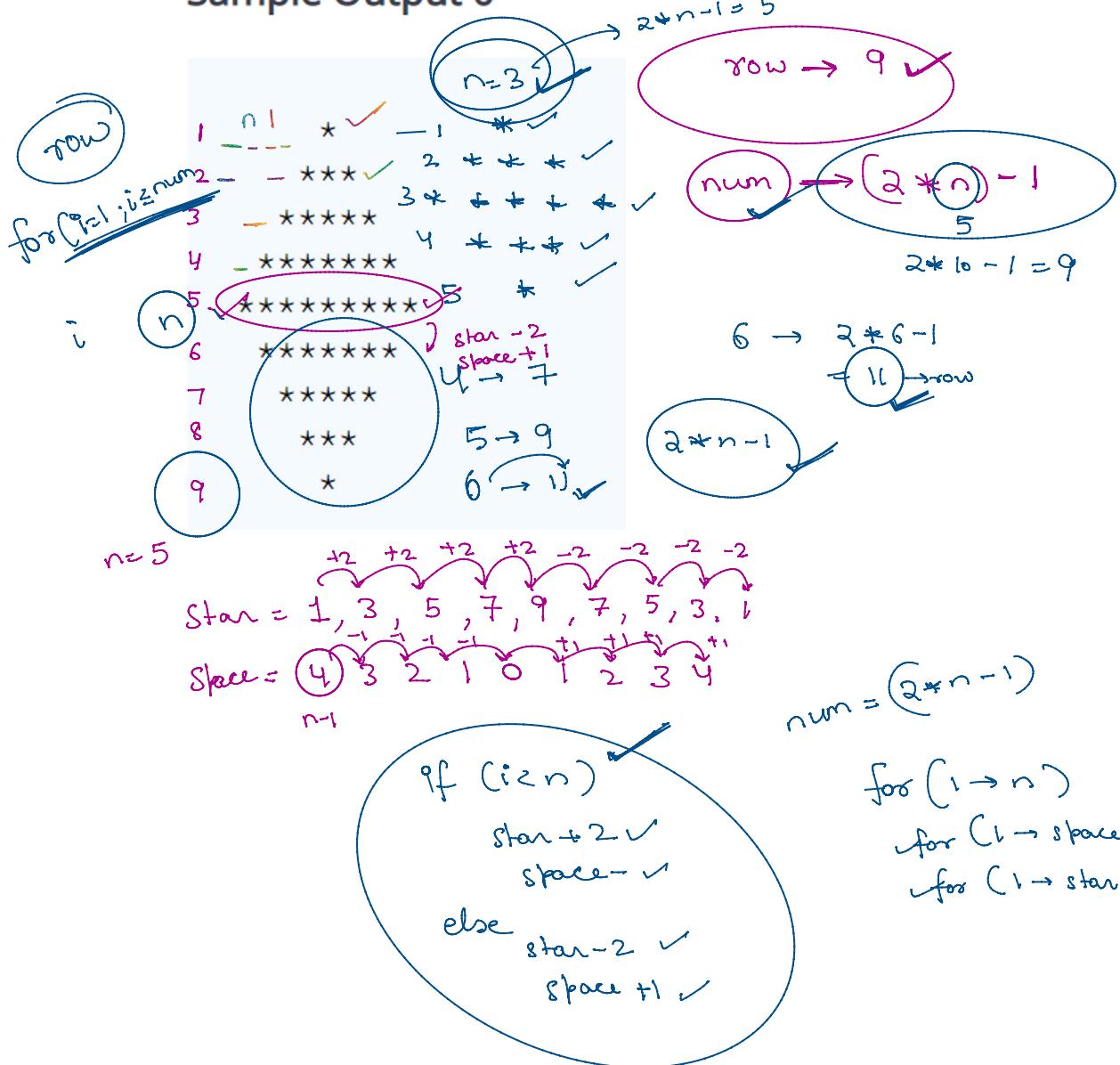
Memory

star = 12345
space = 43210

Sample Input 0



Sample Output 0



```

Scanner scn = new Scanner(System.in);
int n = scn.nextInt(); → 5
int nums = (2 * n) - 1; → 9
int stars = 1; ✓
int space = n - 1; ✓
for(int i = 1; i <= nums; i++){ → rows
    for(int j = 1; j <= space; j++){ →
        System.out.print(" ");
    }
    for(int j = 1; j <= stars; j++){ →
        System.out.print("*");
    }
}

```

Handwritten annotations for the code output:

- Row 1: $1 - - - - *$
- Row 2: $2 - - - - * * *$
- Row 3: $3 - - * * * * *$
- Row 4: $4 - * * * * * *$

Handwritten notes:

- $i = 1, j = 1$
- $n \rightarrow 5$
- $nums \rightarrow 9$
- $star - 1 \rightarrow 1$
- $space - 4 \rightarrow 4$
- $rows - 4 \rightarrow 4$

```

        }
        for(int j = 1; j<=stars; j++){
            System.out.print("*");
        }
        if(i<n){
            stars+=2; ✓
            space--;
        }else{
            stars-=2; ✓
            space++;
        }
        System.out.println(); ✓
    }
}

```

$\text{nums} \rightarrow 9$
~~star = X~~ 7879
~~Space = X~~ 32109
~~8~~
~~4~~

```

Scanner scn = new Scanner(System.in);
int n = scn.nextInt();
int nums = (2 *n) -1; 5
int stars =1; ✓
int space = n-1; 2
for(int i = 1; i<=nums; i++){
    for(int j =1; j<=space ; j++){
        System.out.print(" ");
    }
    for(int j =1; j<=stars ; j++){
        System.out.print("*");
    }
    if(i<n){
        stars+=2; ✓
        space--; ✓
    }else{
        stars-=2; ✓
        space++; ✓
    }
    System.out.println(); ✓
}

```

1 - - *
2 - * * *
3 * * * * *
4 - * * *
5 - - *

~~i=123456~~
~~j=1~~
~~n=3~~
~~num=5~~
~~Star=X~~ 355X
~~Space=X~~ 10X2
~~3~~