$n = 5$

1 → 1 Col.
2 - 1, 2

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

↑ executed.

i (row)	j (col) (Times (*))
1	1
2	2
3	3
4	4
5	5

$j <= i$ ⟶

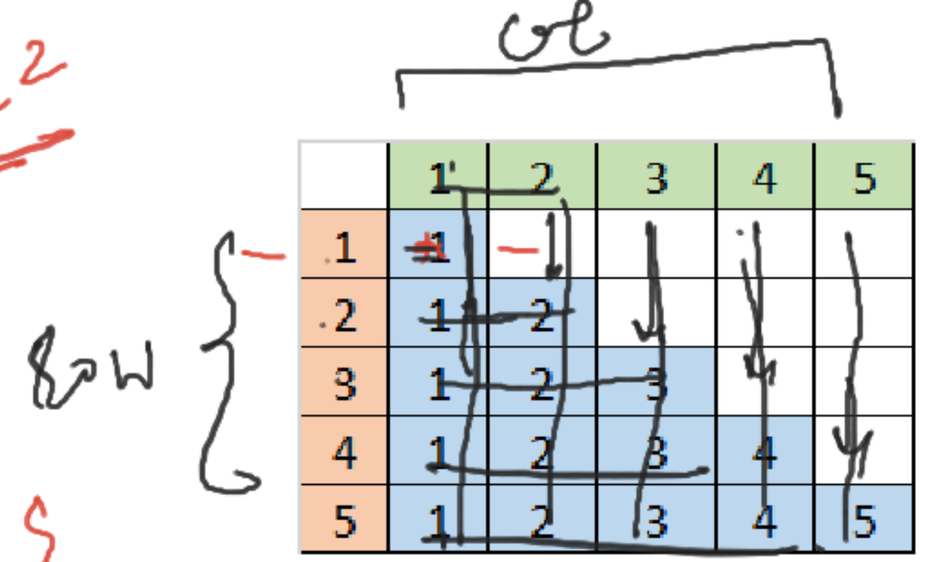
```
for(int i = 1; i<=n; i++) {
    for(int j = 1; j<= i ; j++)
        System.out.print("*");
    System.out.println();
}
```

Type 2

$n = 5$

```
for(int i=1; i<=n; i++){
    for(int j=1; j<=i ; j++){
        Syso( j );
    }
    Syso println( );
```

3



Type 1 → $j <= totalRows$ □

Type 2 → $j <= i$ △

(i → currentRowNo)

Type 3 → $j < 2(n+1) - currentRowNo$

(n → totalRows)

num = 1;

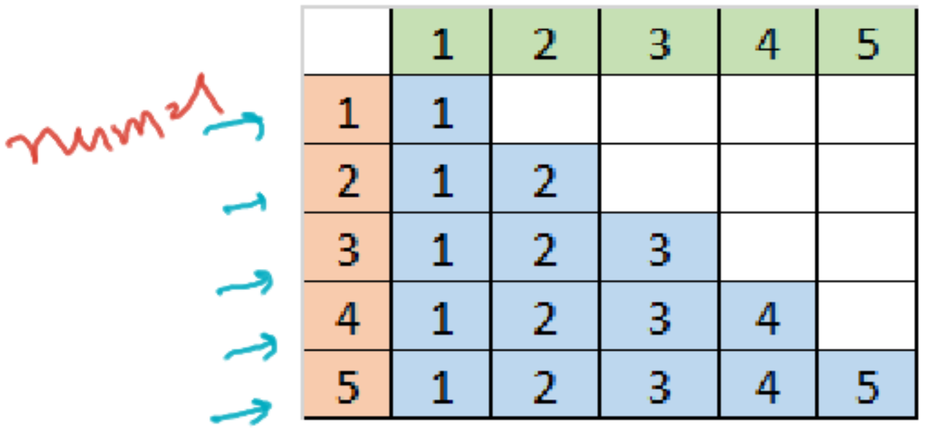
	1	2	3	4	5
1	1	+1			
2	2	3			
3	4	5	6		
4	7	8	9	10	
5	11	12	13	14	15

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

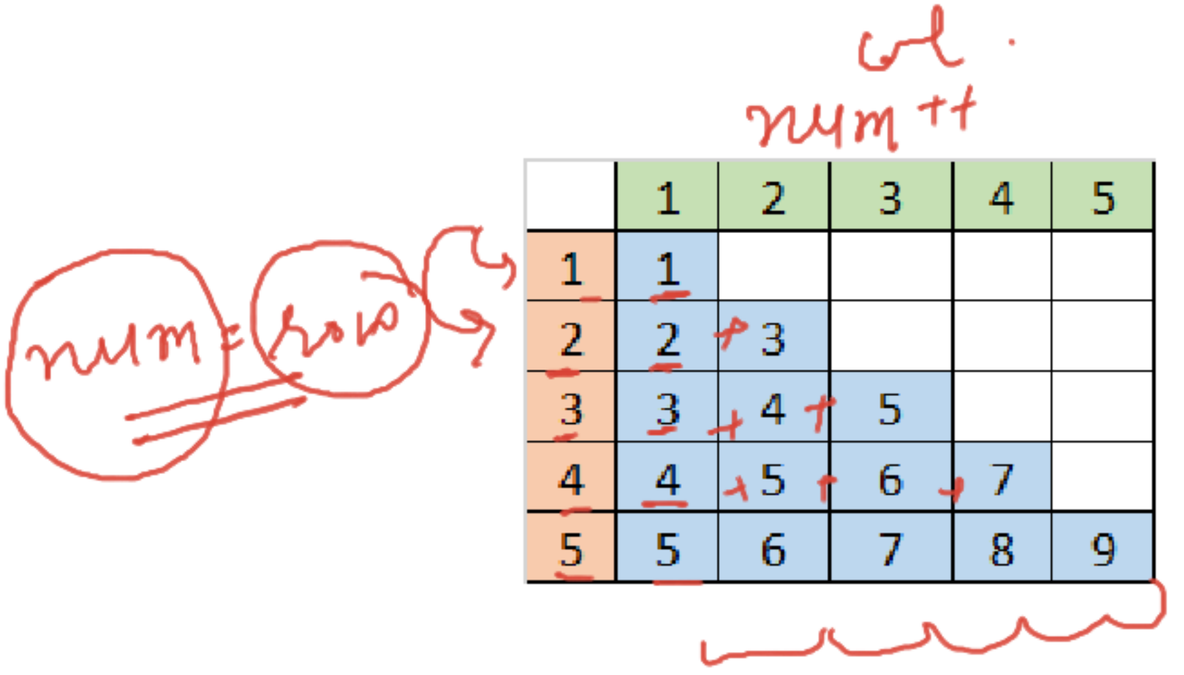
Case1: Every Row, col → New Value → Inc by 1

Variable init outside the Loop

Increment inside the Column loop.



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



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

n = 5;

(n+1) - row = col

6 - row = col (times)

row	col
6 - 1	5
6 - 2	4
6 - 3	3
6 - 4	2
6 - 5	1

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

```
for( int i=1; i<=n ; i++){
    for(int j=1; j<=  ; j++){
        Syso("*");
    }
    Syso println();
}
```

```
for(int i=1; i<=5; i++) {
    for(int j=5; j>=1; j--) {
        System.out.print("*");
    }
    System.out.println();
}
```

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

→ 5
→ 4
→ 3
→ 2
→ 1

5 >= 1 → true
4 >= 1
3 >= 1
2 >= 1
1 >= 1
0 >= 1 → false

3

Assignment-2

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

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

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