Tribonacci Series

a	b	c	sum ↓						
0	1	1	2	4	7	13	24	44	81
0	1	2	3	4	5	6	7	8	9

a b c

```
int a=0;
int b=1;
int c=1;
if(n==0)
    S.o.pln(a);
if(n==1)
    S.o.pln(b);
if(n==2)
    S.o.pln(c);
int sum=0;
```

```
int sum=0;
for(int i=3; i<=n; i++){
  sum=a+b+c;
   a=b;
   b=c;
   c=sum;
  }
 S.o.pln(Sum);
 }
```

GKSTR Pattern_5

(1,1)	(1,2)	(1,3)	(1,4)	(1,5) *	→ 1
(2,1)	(2,2)	(2,3)	(2,4) *	(2,5) *	→ 2
(3,1)	(3,2)	(3,3) *	(3,4) *	(3,5) *	→ 3
(4,1)	(4,2) *	(4,3) *	(4,4) *	(4,5) *	→ 4
(5,1) *	(5,2) *	(5,3) *	(5,4) *	(5,5) *	→ 5
1	2	3	4	5	

n-i
n-(i-1)

5 → 1 → k<=n.
4 → 2 → n-0 to n.
3 → 3 → n-1 to n
2 → 4 → n-2 to n
1 → 5 → n-4 to n

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

i=1 → 1st line
* → 5 → 5-1+1 → 5 to 5

i=2 → 5-2+1
* → 4 to 5

i=3 → 5-3+1 = 3
* → 3 to 5

i=4 → 5-4+1 = 2
* → 2 to 5

i=5 → 5-5+1 = 1
* → 1 to 5

1 to 4 → space → 1st line
5 → * → 1st line

1 to 3 → space } 2nd line
4 to 5 → *

1 to 2 → space } 3 line
3 to 5 → *

4th Line
1 → space
2 to 5 → *

5th Line
1 to 5 → *
0 → space.

n=5;

```
for(int i=1; i<=n; i++) {
```

```
for(int j=1 ; j<=n-i; j++){
  S.o.p(" ");
}
for(int k=n-(i-1); k<=n; k++)
   S.o.p(*);
}
```

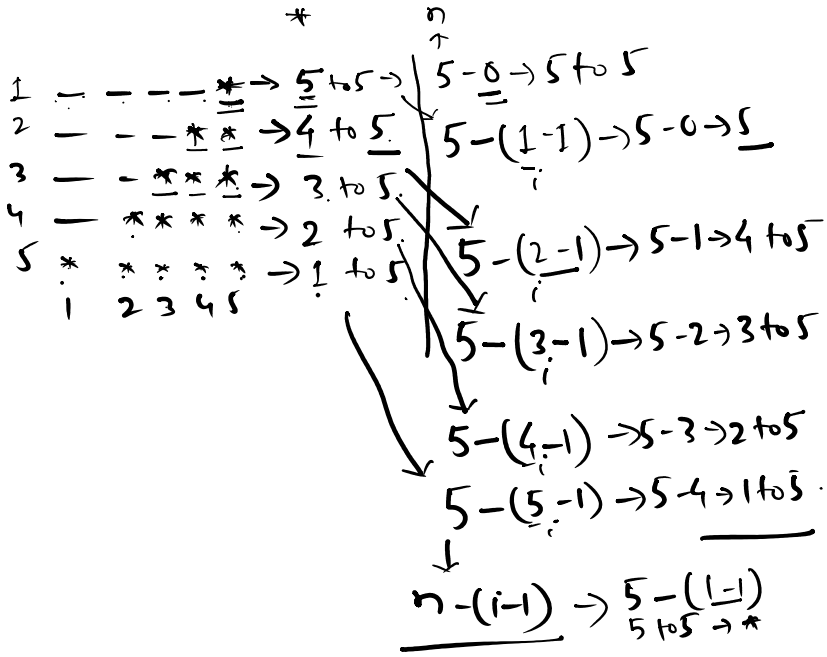
k = 5 - 5 + 1 = 1 to 5

5

Sample Output 0

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

```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         /* Enter your code here. Read input from STDIN. Print output
8         Scanner sc = new Scanner(System.in);
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){
11            for(int j =1;j<=n-i;j++){
12                System.out.print(" ");
13            }
14            for(int k=n-(i-1);k<=n;k++){
15                System.out.print("*");
16            }
17            System.out.println();
18
19        }
```



i:2

K → 5-(2-1) → 5-1 → 4 to 5

4 → *

5 → *

i:3

K → 5-(3-1) → 5-2 → 3 to 5

K → 3 → *

K → 4 → *

K → 5 → *

i:4

K → 5-(4-1) → 5-3 → 2 to 5

K → 2 → *

K → 3 → *

K → 4 → *

K → 5 → *

i:5

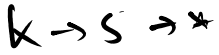
K: 5-(5-1) : 5-4 : 1 to 5

K → 1 → *

K → 2 → *

K → 3 → *

K → 4 → *



Print a hollow square without top

n = 5

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

1 to 4

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

5th line

```
* * * * *
```

5 × 5

```
for(i=1; i<=5; i++){
for(j=1; j<=5; j++){
  s.o.p (*);
}
s.o.println();
}
for(int i=1; i<=n; i++){
if(i==n){
for(j=1 to n)
  s.o.p(*);
}else
{
s.o.p(*)
for(int j=2; j<=n-1; j++){
  s.o.p(" ");
}
```