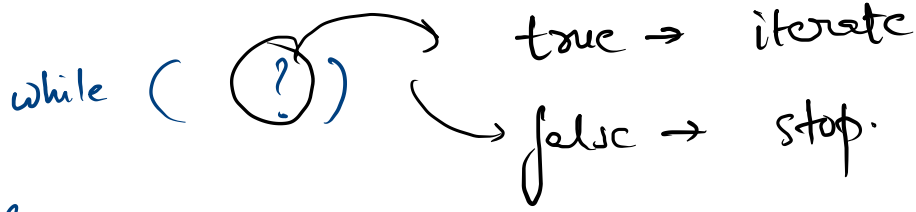
Revision.



{

.

nested loop.

}

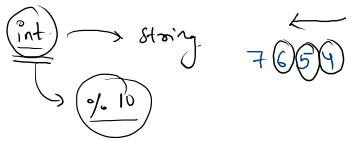
Print all digits from end

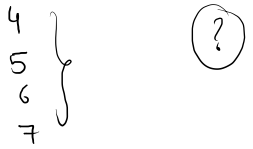
Sample Input 0

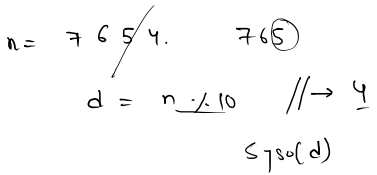
```
7654
```

Sample Output 0

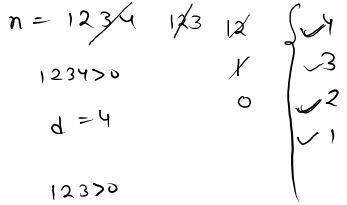
```
4
5
6
7
```

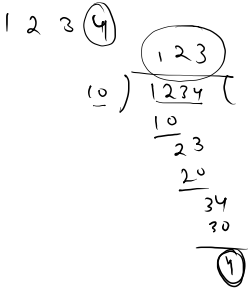


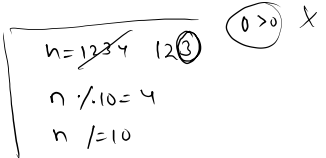





```java
public static void main(String[] args) {
   Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();

    while(n > 0){
        int d = n % 10;
        System.out.println(d);
        n /= 10;
    }
}
```







eg. $n = 523$ ans = 3.

$n = 1234$ ans = 4

$n = 575760$ ans = 6 ?

Count = 0 1 2 3

n = 523 52 5 0

```
while ( n>0 )
{

}
```

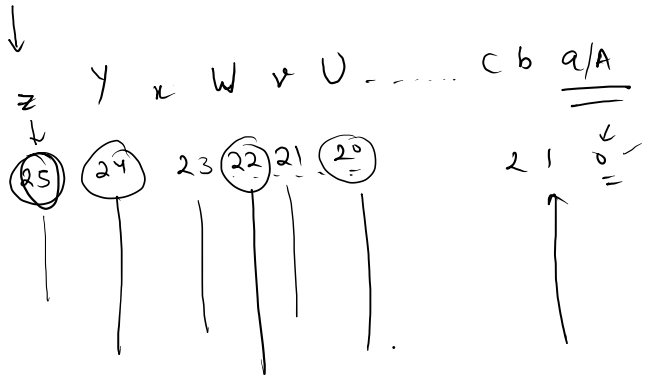
n = 1234 123 12 1 0

count = 0 1 2 3 4

Print z, Y, x, W, v,...

Problem | Submissions | Leaderboard

Print `z, Y, x, W, v...` uptil 26 characters using a **while loop**.



odd → lower case

even → ~~upper case~~

```
while(pos >= 0){
    if(pos % 2 == 0){
        System.out.print((char)('A' + pos) + " ");
    }
    else{
        System.out.print((char)('a' + pos) + " ");
    }
    pos--;
}
```

pos = 25 24

23

23 20

z Y .....

'a' + 25

97 + 25

= 122

'A' + 24

65 + 24

= 89

Patterns:

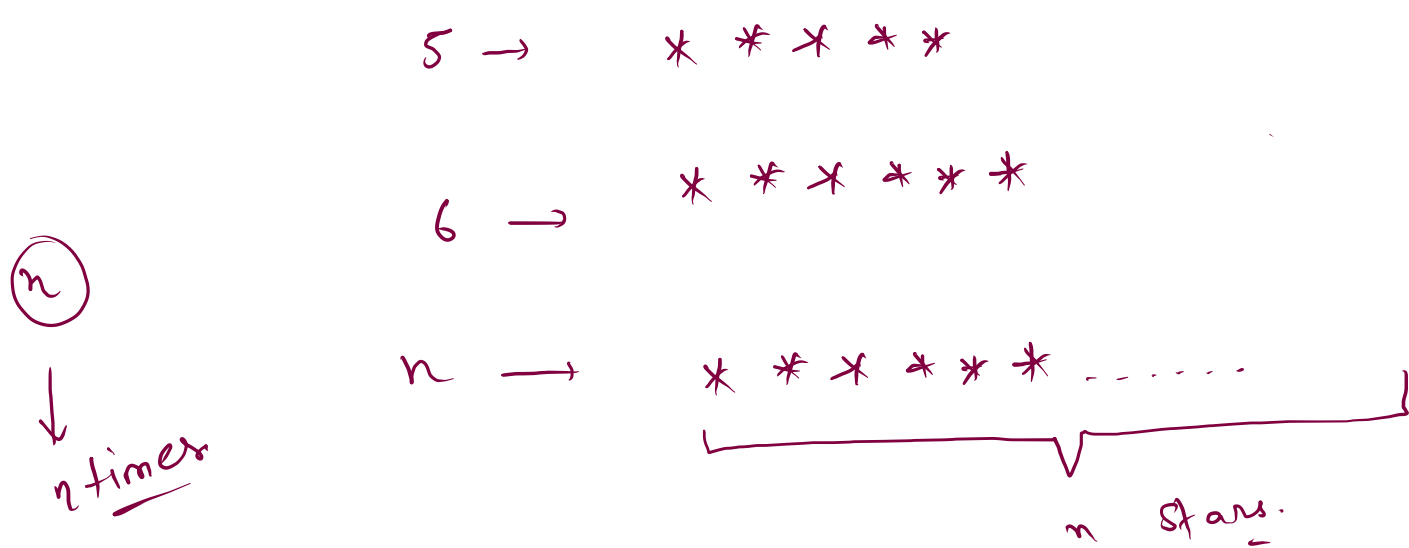
way to code.

more lines.

nested loops

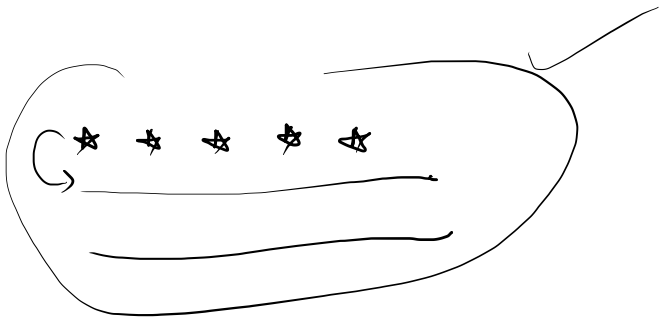
loop inside another loop.

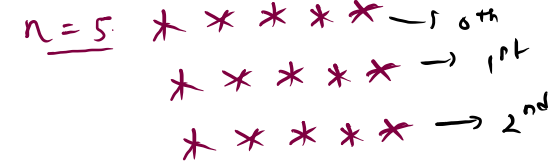
Pattern 1 - Print Stars in same line

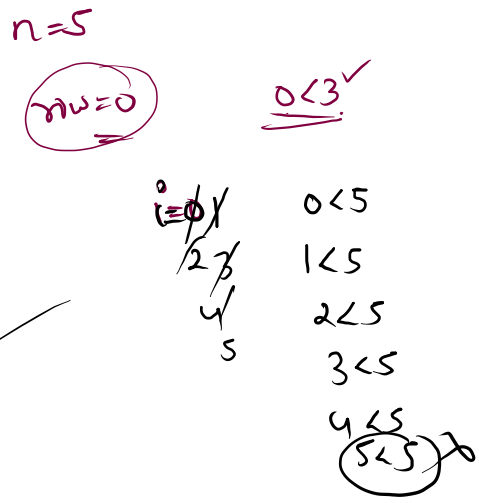


Pattern 2 - Print n x 12 star rectangle

```
int n = scn.nextInt();
for(int row = 0; row < 12; row++){
    for(int i = 0; i < n; i++){
        System.out.print("*");
    }
    System.out.println();
}
```







Pattern 3 - nxn star ~~rectangle~~ square.

n = 3

Problem | Submissions | Leaderboard | Discussions

Take **n** as an integer input. Then print **nxn** star **rectangle** as mentioned below.

In each line, **n** stars should be printed.

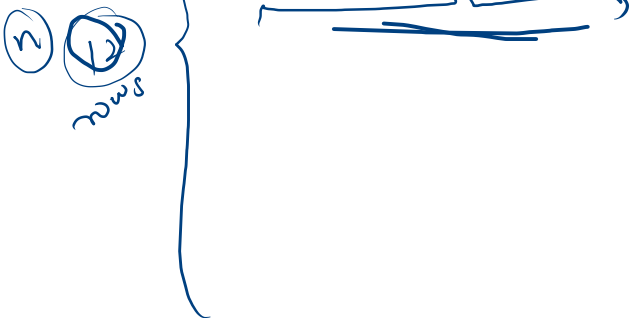
And there should be **n** such lines.

Input Format

For each test case, **n** will be given as an integer input.

n = 4.

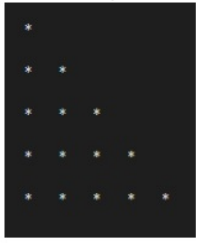
already.



GKSTR19 Pattern_4

Problem | Submissions | Leaderboard | Discussic

Take Integer **N** as input and print the following pattern.



1. row? ⟶ n rows.

2. how many stars?
   ↳ 0th.

   Star = 1

3. Observe similarity in each row.

   Star++

```java
int n = scn.nextInt(); //4

int star = 1;

for(int row = 0; row < n; row++){    // this

    for(int cst = 0; cst < star; cst++){
        System.out.print("* ");
    }
    System.out.println();
    star++;
}
```

n = 4.

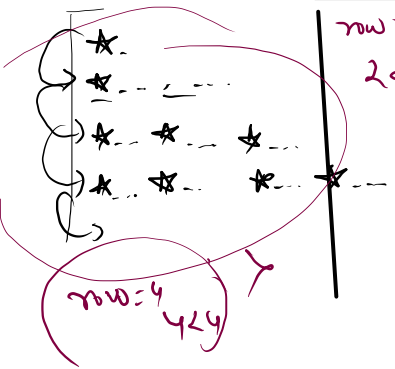
Star = 1 2 3 4 5

row = 0
0 < 4
cst = 0 1
0 < 1
1 < 1 X

row = 1
1 < 4
cst = 0 1 2
0 < 2
1 < 2
2 < 2 X

row = 2
2 < 4
cst = 0 1 2 3
0 < 3
1 < 3
2 < 3
3 < 3 X

row = 3
3 < 4
cst = 0 1 2 3 4
0 < 4
1 < 4
2 < 4
3 < 4
4 < 4 X



row = 4
4 < 4

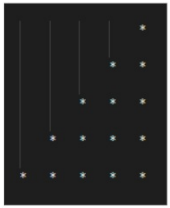
GKSTR20 Pattern_5

n = 5.

Problem | Submissions | Leaderboard

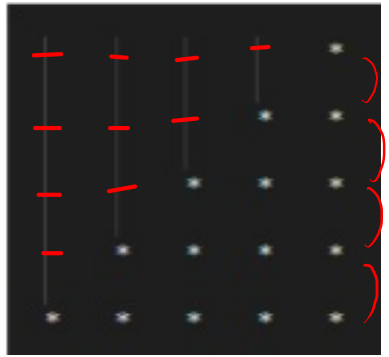
n = 5.

Take Integer **N** as input and print the following pattern.



each.

space — star



rows = n ?

star = 1

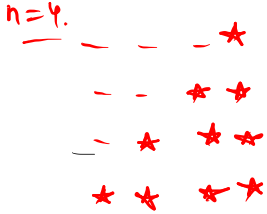
space = n - 1

similarity.

star ++

space --

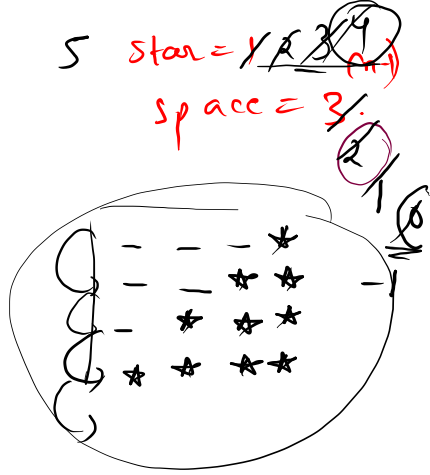
```java
import java.io.*;
import java.util.*;

public class Solution {

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

        int star = 1;
        int space = n-1;

        for(int row = 0; row < n; row++){
            //space
            for(int csp = 0; csp < space; csp++){
                System.out.print(" ");
            }
            //star
            for(int cst = 0; cst < star; cst++){
                System.out.print("*");
            }
            star++;
            space--;
            System.out.println();

        }


    }
}
```



row = 3 3<4. ✓

csp = 0 0<0 ✗

cst = 0



row = 4 4<4 ✗