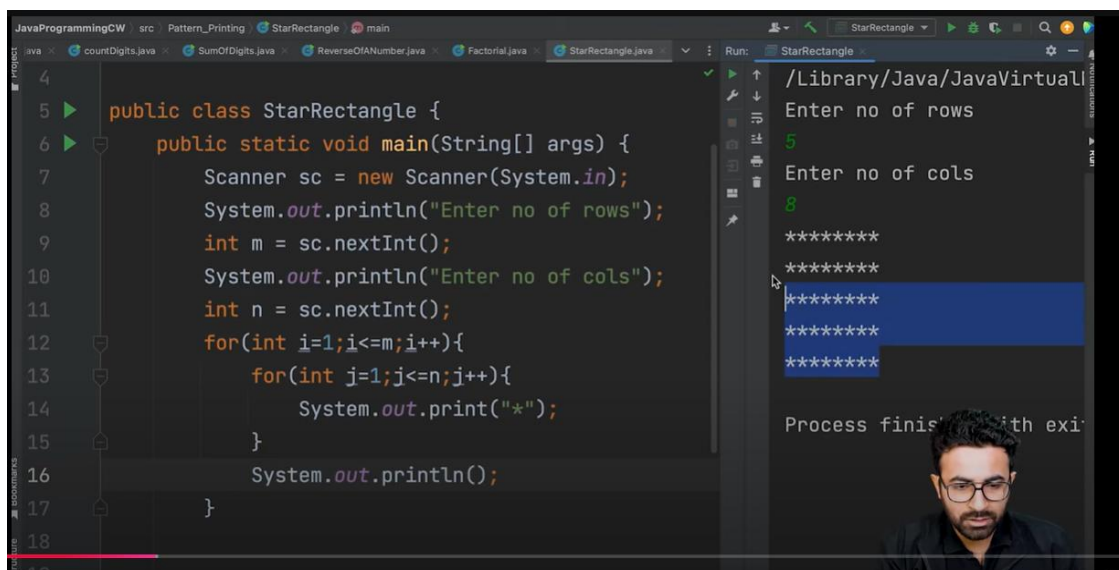


# Pattern Printing

## Pattern-1

**Ques** : Print the given pattern

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



The screenshot shows a Java IDE with a project named 'JavaProgrammingCW'. The 'src' folder contains a package 'Pattern\_Printing' with a class 'StarRectangle'. The 'main' method is being executed, and the output is displayed in the 'Run' console.

```
public class StarRectangle {  
    public static void main(String[] args) {  
        Scanner sc = new Scanner(System.in);  
        System.out.println("Enter no of rows");  
        int m = sc.nextInt();  
        System.out.println("Enter no of cols");  
        int n = sc.nextInt();  
        for(int i=1;i<=m;i++){  
            for(int j=1;j<=n;j++){  
                System.out.print("*");  
            }  
            System.out.println();  
        }  
    }  
}
```

The output in the 'Run' console shows the user entering 5 for rows and 8 for columns, followed by a rectangle of 5 rows and 8 columns of stars. The process finishes with 'exit(0)'.

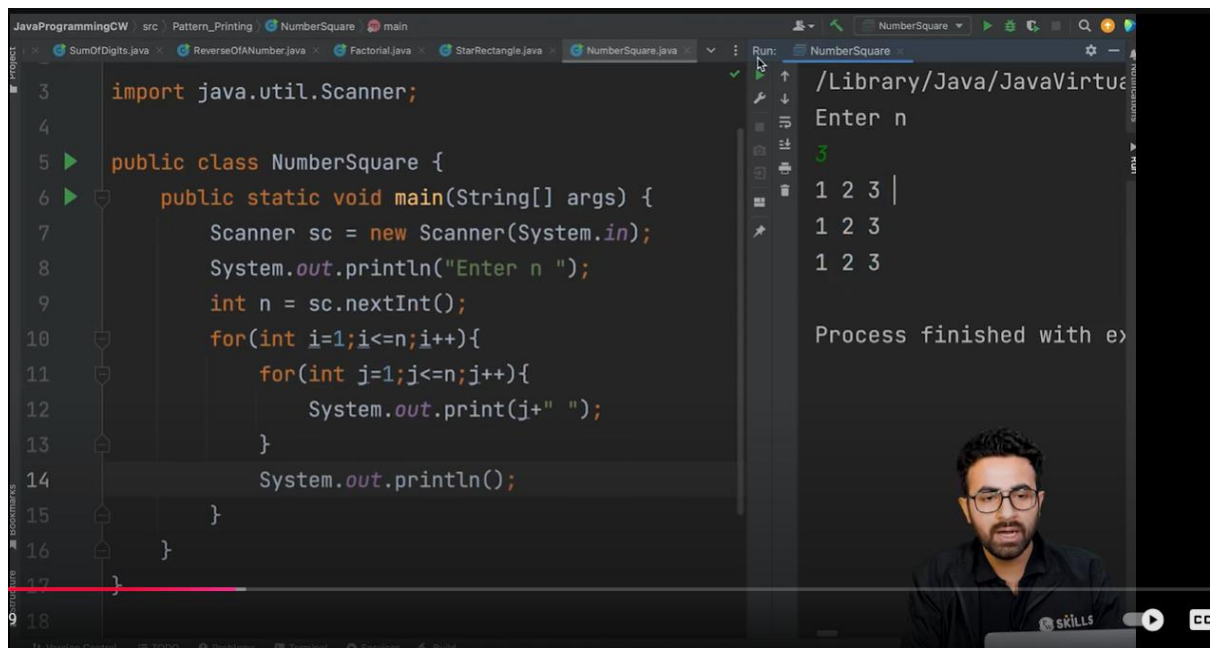
**Ques : Print the given pattern**

n=4

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

n=3

```
1 2 3
1 2 3
1 2 3
```



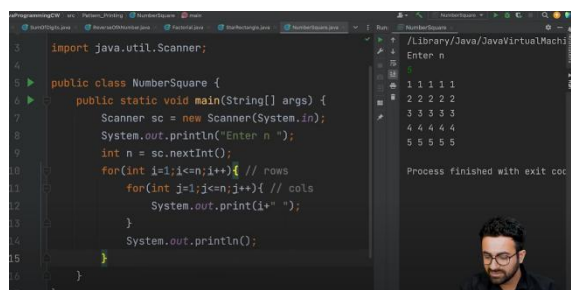
The screenshot shows an IDE with a Java file named `NumberSquare.java`. The code uses a `Scanner` to take input `n` and prints a square pattern of numbers from 1 to `n`. The output window shows the input `3` and the resulting pattern:

```
1 2 3 |
1 2 3
1 2 3
```

Below the pattern, it says "Process finished with exit code 0". A small video feed of a person is visible in the bottom right corner.

```
import java.util.Scanner;

public class NumberSquare {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter n ");
        int n = sc.nextInt();
        for(int i=1;i<=n;i++){
            for(int j=1;j<=n;j++){
                System.out.print(j+" ");
            }
            System.out.println();
        }
    }
}
```



The screenshot shows the same IDE with the same Java code. The output window shows the input `4` and the resulting pattern:

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

Below the pattern, it says "Process finished with exit code 0". A small video feed of a person is visible in the bottom right corner.

```
import java.util.Scanner;

public class NumberSquare {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter n ");
        int n = sc.nextInt();
        for(int i=1;i<=n;i++){ // rows
            for(int j=1;j<=n;j++){ // cols
                System.out.print(i+" ");
            }
            System.out.println();
        }
    }
}
```

## Ques : Print the given pattern

A B C D  
A B C D  
A B C D  
A B C D

n = 4

n = 3

A B C  
A B C  
A B C

n = 3

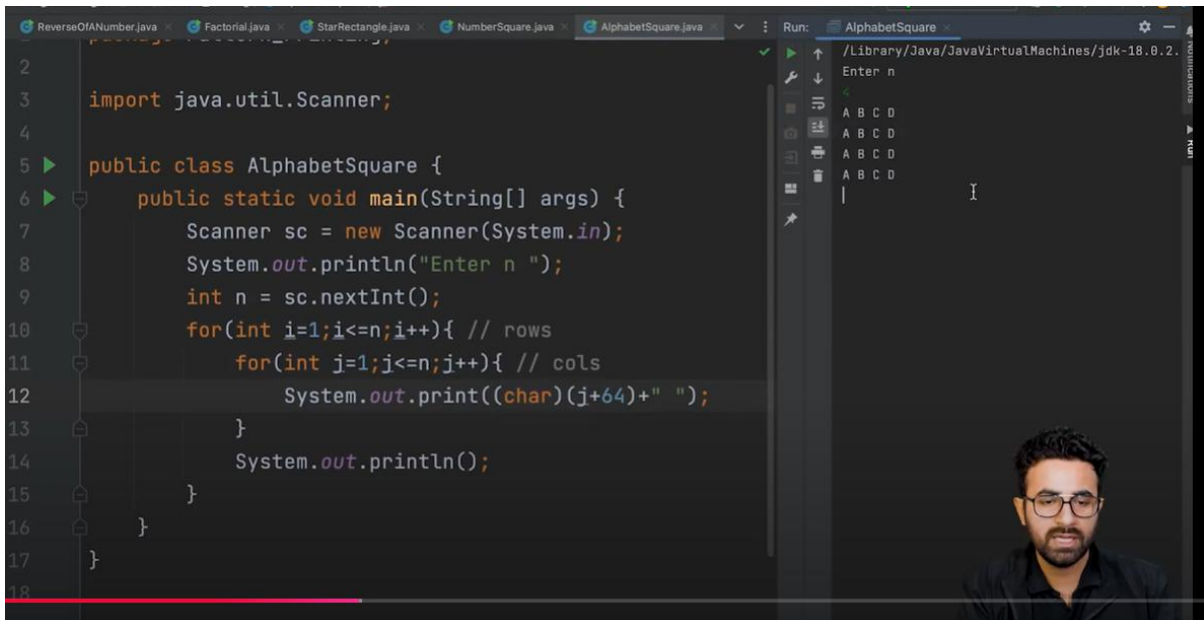
1 2 3  
1 2 3  
1 2 3

n = 3

65 66 67  
65 66 67  
65 66 67

n = 3

A B C  
A B C  
A B C



```

2
3 import java.util.Scanner;
4
5 public class AlphabetSquare {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=n;j++){ // cols
12                System.out.print((char)(j+64)+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
  
```

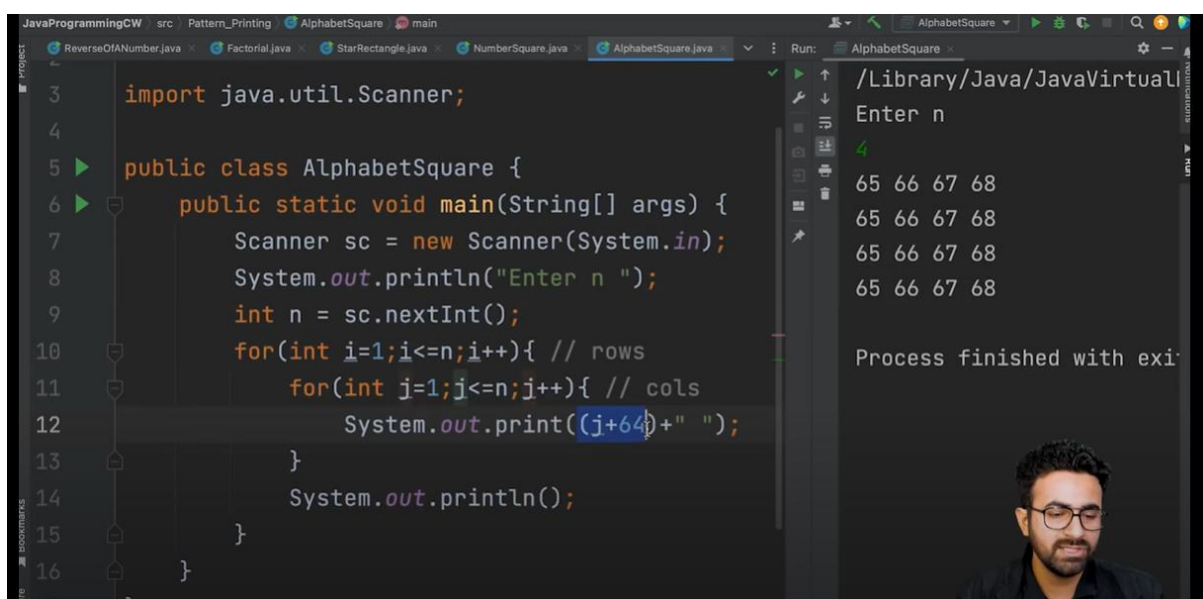
Run: AlphabetSquare

/Library/Java/JavaVirtualMachines/jdk-18.0.2

Enter n

4

A B C D  
A B C D  
A B C D  
A B C D



```

3 import java.util.Scanner;
4
5 public class AlphabetSquare {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=n;j++){ // cols
12                System.out.print((j+64)+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
  
```

Run: AlphabetSquare

/Library/Java/JavaVirtual

Enter n

4

65 66 67 68  
65 66 67 68  
65 66 67 68  
65 66 67 68

Process finished with exit

College Walaan

```
JavaProgrammingCW / src / Pattern_Printing / AlphabetSquare / main
ReverseOfANumber.java x Factorial.java x StarRectangle.java x NumberSquare.java x AlphabetSquare.java x
2
3 import java.util.Scanner;
4
5 public class AlphabetSquare {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=n;j++){ // cols
12                System.out.print((char)(j+96)+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
18
```

Run: AlphabetSquare

/Library/Java/JavaV  
Enter n  
4  
a b c d  
a b c d  
a b c d  
a b c d  
Process finished with

Font size: 3

02:39

```
JavaProgrammingCW / src / Pattern_Printing / AlphabetSquare / main
ReverseOfANumber.java x Factorial.java x StarRectangle.java x NumberSquare.java x AlphabetSquare.java x
2
3 import java.util.Scanner;
4
5 public class AlphabetSquare {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=n;j++){ // cols
12                System.out.print((char)(i+64)+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
18
```

Run: AlphabetSquare

/Library/Java/JavaVirtualMachi  
Enter n  
6  
A A A A A A  
B B B B B B  
C C C C C C  
D D D D D D  
E E E E E E  
F F F F F F  
Process finished with exit code

03

## Ques : Print the given pattern

1 2 3 4  
1 \*  
2 \*\*  
3 \*\*\*  
4 \*\*\*\*

$n=5$

\*  
\* \*  
\* \* \*  
\* \* \* \*  
\* \* \* \* \*

$n=2$

\*  
\* \*

Col is depending on row no.

No. of stars in a row =  $i$

$j_{\max} = i \Rightarrow j \leq i \rightarrow \text{condition}$

```
JavaProgrammingCW | src | Pattern_Printing | StarTriangle | main
java | Factorial.java | StarRectangle.java | NumberSquare.java | StarTriangle.java | AlphabetSquare.java | Run: StarTriangle
3 import java.util.Scanner;
4
5 public class StarTriangle {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=i;j++){ // cols
12                System.out.print("* ");
13            }
14            System.out.println();
15        }
16    }
17 }
18
```

/Library/Java/JavaVirtualMachines  
Enter n  
6  
\*  
\* \*  
\* \* \*  
\* \* \* \*  
\* \* \* \* \*  
\* \* \* \* \*  
\* \* \* \* \*  
\* \* \* \* \*

Process finished with exit code 0



**Ques** : Print the given pattern

1  
1 2  
1 2 3  
1 2 3 4

$x \rightarrow j$

Number Triangle

```
JavaProgrammingCW | src | Pattern_Printing | StarTriangle | main
| java | Factorial.java | StarRectangle.java | NumberSquare.java | StarTriangle.java | AlphabetSquare.java | Run: StarTriangle
3 import java.util.Scanner;
4
5 public class StarTriangle {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=i;j++){ // cols
12                System.out.print(j+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
```

/Library/Java/Java  
Enter n  
7  
1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5  
1 2 3 4 5 6  
1 2 3 4 5 6 7  
Process finished w

```
JavaProgrammingCW / src / Pattern_Printing / StarTriangle / main
java x Factorial.java x StarRectangle.java x NumberSquare.java x StarTriangle.java x AlphabetSquare.java x Run: StarTriangle x
3 import java.util.Scanner;
4
5 public class StarTriangle {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=i;j++){ // cols
12                System.out.print((char)(j+64)+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
18
19
```

/Library/Java/JavaVirtualMachines  
Enter n  
5  
A  
A B  
A B C  
A B C D  
A B C D E  
Process finished with exit code 0

```
JavaProgrammingCW / src / Pattern_Printing / StarTriangle / main
java x Factorial.java x StarRectangle.java x NumberSquare.java x StarTriangle.java x AlphabetSquare.java x Run: StarTriangle x
3 import java.util.Scanner;
4
5 public class StarTriangle {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=i;j++){ // cols
12                System.out.print((char)(i+64)+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
18
19
```

/Library/Java/JavaVirtualMachines  
Enter n  
5  
A  
B B  
C C C  
D D D D  
E E E E E  
Process finished with exit code 0





The image shows a Java IDE with the following code in `StarTriangleUlta.java`:

```
package Pattern_Printing;

import java.util.Scanner;

public class StarTriangleUlta {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter n ");
        int n = sc.nextInt();
        for(int i=1;i<=n;i++){ // rows
            for(int j=1;j<=n+1-i;j++){ // cols
                System.out.print("* ");
            }
            System.out.println();
        }
    }
}
```

The output of the program is:

```
Library/Java/JavaVirtualMachines/11.0.12-jdk-8u332-b01/Contents/Home/bin/java
Enter n
5
* * * * *
* * * *
* * *
* *
*

Process finished with exit code 0
```

A small video inset in the bottom right corner shows a man with a beard and dark hair, wearing a black shirt, looking at the screen.

SKILLS

## Ques : Print the given pattern

```

1 2 3 4 → j
1 ****      n=3
2 ***       1 ^ ^ ^
3 **        2 ^ ^
4 *         3 ^
↓          ↓
n=4
↓
i

```

$i + j = n + 1$

$j = n + 1 - i$

$j = 1 \text{ to } n + 1 - i$

```

for (i = 1 to n) { // for rows
|   for (j = 1 to n + 1 - i) {
|       | _____
|       3
|   }
}

```

2:39
Star Triangle Ultia
PhysicsWallah
CC BY NC SA

## HW : Print the given pattern

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

Number Triangle Uta

```
vaProgrammingCW | src | Pattern_Printing | StarTriangleUta | main
Java | Factorial.java | StarRectangle.java | NumberSquare.java | StarTriangle.java | StarTriangleUta.java | Run: StarTriangleUta
1 package Pattern_Printing;
2
3 import java.util.Scanner;
4
5 public class StarTriangleUta {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=n+1-i;j++){ // cols
12                System.out.print(j+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
18
19
```

```
/Library/Java/JavaVirtualMachines/
Enter n
6
1 2 3 4 5 6
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1

Process finished with exit c
```



```
JavaProgrammingCW / src / Pattern_Printing / StarTriangleUta / main
1 package Pattern_Printing;
2
3 import java.util.Scanner;
4
5 public class StarTriangleUta {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        for(int i=1;i<=n;i++){ // rows
11            for(int j=1;j<=n+1-i;j++){ // cols
12                System.out.print((char)(i+64)+" ");
13            }
14            System.out.println();
15        }
16    }
17 }
18
Run: StarTriangleUta
/Library/Java/JavaVirtual
Enter n
6
A A A A A A
B B B B B
C C C C
D D D
E E
F
Process finished with exit
```

## Ques : Print the given pattern

1 2 3 4 → j

1  
1 3  
1 3 5  
1 3 5 7

for (i = 1 to n) {  
 for (j = 1 to i) {  
 cout (2j-1);  
 }  
}

1, 3, 5, 7, 9, ...

$a_j = 1 + (j-1) \cdot 2 = 2j-1$

Odd Number Triangle

college wallah

```
JavaProgrammingCW / src / Pattern_Printing / OddNumberTriangle / main
package Pattern_Printing;

import java.util.Scanner;

public class OddNumberTriangle {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter n ");
        int n = sc.nextInt();
        for(int i=1;i<=n;i++){ // rows
            for(int j=1;j<=i;j++){ // cols
                System.out.print((2*j-1)+" ");
            }
            System.out.println();
        }
    }
}
```

Run: OddNumberTriangle

/Library/Java/JavaVirtualMachines/...

Enter n

5

1

1 3

1 3 5

1 3 5 7

1 3 5 7 9

Process finished with exit code 0

39:24 / 3:02:39

PhysicsWallah

\*Ques : Print the given pattern

1 2 3 4 n=4

1

2 3

3 4 5 6

4 7 8 9 10

n=5

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

Floyd's Triangle

02:39

PhysicsWallah



```
JavaProgrammingCW src Pattern_Printing FloydTriangle main
import java.util.Scanner;

public class FloydTriangle {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter n ");
        int n = sc.nextInt();
        int a = 1;
        for(int i=1;i<=n;i++){ // rows
            for(int j=1;j<=i;j++){ // cols
                System.out.print(a+" ");
                if(a<10) System.out.print(" ");
                a++;
            }
            System.out.println();
        }
    }
}
```

Run: FloydTriangle

/Library/Java/JavaVirtualMachines/...

Enter n

5

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

Process finished with exit code 0

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\*Ques : Print the given pattern

n=4

1 2 3 4

1 1

2 0 1

3 1 0 1

4 0 1 0 1

n=7

1 2 3 4 5 6 7 j

1 1

2 0 1

3 1 0 1

4 0 1 0 1

5 1 0 1 0 1

6 0 1 0 1 0 1

7 1 0 1 0 1 0 1

↓

↓

0 & 1 Triangle

3:02:39

PhysicsWallah

**\*Ques : Print the given pattern**

1 2 3 4  
1  
0 1  
1 0 1  
0 1 0 1  
n=4

n=7  
1 2 3 4 5 6 7  
1  
2 0 1  
3 1 0 1  
4 0 1 0 1  
5 1 0 1 0 1  
6 0 1 0 1 0 1  
7 1 0 1 0 1 0 1  
↓  
↓  
↓

```
if(i is odd){
    if(j is odd) → sout(1)
    else sout(0);
}
else{ // i is even
    if(j is even) sout(1)
    else sout(0)
}
```

0 & 1 Triangle

```
public class ZeroAndOneTriangle {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter n ");
        int n = sc.nextInt();
        for(int i=1; i<=n; i++){ // rows
            for(int j=1; j<=i; j++){ // cols
                if(i%2!=0){
                    if(j%2!=0) System.out.print(1+" ");
                    else System.out.print(0+" ");
                }
                else{ // i is even
                    if(j%2==0) System.out.print(1+" ");
                    else System.out.print(0+" ");
                }
            }
            System.out.println();
        }
    }
}
```

```
import java.util.Scanner;

public class ZeroAndOneTriangle {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter n ");
        int n = sc.nextInt();
        for(int i=1; i<=n; i++){ // rows
            for(int j=1; j<=i; j++){ // cols
                if((i+j)%2==0) System.out.print(1+" ");
                else System.out.print(0+" ");
            }
            System.out.println();
        }
    }
}
```

## Ques : Print the given pattern

\*  
 \*  
 \*\*\*\*\*  
 \*  
 \*

n=5

n is odd

n=3

\*  
 \* \* \*  
 \*

$$\left(\text{mid} = \frac{n+1}{2}\right)$$

n=5

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

if (i == middle row || j == middle col)  
     cout(\*)  
 else  
     cout(#)

Star Plus

PhysicsWallah

```

JavaProgrammingCW src Pattern_Printing StarPlus main
java OddNumberTriangle.java FloydTriangle.java StarTriangleUta.java AlphabetSquare.java StarPlus.java
4
5 public class StarPlus {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter n ");
9         int n = sc.nextInt();
10        int mid = n/2 + 1;
11        for(int i=1; i<=n; i++){ // rows
12            for(int j=1; j<=n; j++){ // cols
13                if(i==mid || j==mid)
14                    System.out.print("* ");
15                else System.out.print("# ");
16            }
17            System.out.println();
18        }
19    }
}

Run: StarPlus
/Library/Java/Java
Enter n
7
# # # * # # #
# # # * # # #
# # # * # # #
* * * * *
# # # * # # #
# # # * # # #
# # # * #

Process finished with
    
```

## HW : Print the given pattern

1 2 3 4 5 6 → j  
 1 \* \* \* \* \*  
 2 \* \_ \_ \_ \*  
 3 \* \_ \_ \_ \*  
 4 \* \* \* \* \*  
 ↓  
 i

m = 4  
 n = 6

if (i == 1 || i == m || j == 1 || j == n) sout(\*)  
 else cout(" ")

Hollow Rectangle

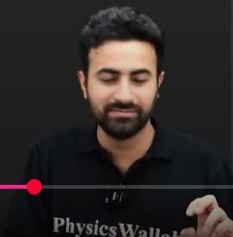


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```

JavaProgrammingCW / src / Pattern_Printing / StarRectangle / main
StarRectangle.java NumberSquare.java StarTriangle.java ZeroAndOneTriangle.java OddNu
4
5 public class StarRectangle {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter no of rows & cols");
9         int m = sc.nextInt();
10        int n = sc.nextInt();
11        for(int i=1; i<=m; i++){ // rows
12            for(int j=1; j<=n; j++){ // cols
13                System.out.print("* ");
14            }
15            System.out.println(); // enter
16        }
17    }
18
19 }
20
21
Run: StarRectangle
/Library/Java/JavaVirtualMach
Enter no of rows & cols
5
9
* * * * *
*
*
*
* * * * *
Process finished with exit co

```



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**\*Ques : Print the given pattern**


```

1 2 3 4 → j
1  _ _ _ *
2  _ _ **
3  _ ***
4  ****
|
i
n=4

```

if(i+j <= n) sout(" ");  
else sout("\*");

**Star Triangle Reverse**



StarTriangleReverse.java

```

6 public static void main(String[] args) {
7     Scanner sc = new Scanner(System.in);
8     System.out.println("Enter n ");
9     int n = sc.nextInt();
10    for(int i=1;i<=n;i++){ // rows
11        for(int j=1;j<=n;j++){ // cols
12            if((i+j)>n) System.out.print("*"+" ");
13            else System.out.print(" "+" ");
14        }
15        System.out.println();
16    }
17 }
18 }
19 }

```


Enter n  
6

```

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

```

Process finished with



StarTriangleReverse.java

```

// for(int i=1;i<=n;i++){ // rows
//     for(int j=1;j<=n;j++){ // cols
//         if((i+j)>n) System.out.print("*"+" ");
//         else System.out.print(" "+" ");
//     }
//     System.out.println();
// }
// for(int i=1;i<=n;i++){ // rows
//     for(int j=1;j<=n-i;j++){ // spaces
//         System.out.print(" "+" ");
//     }
//     for(int j=1;j<=i;j++){ // stars
//         System.out.print("*"+" ");
//     }
//     System.out.println();
// }

```


Enter n  
4

```

      *
     * *
    * * *
   * * * *

```

Process finished with





## HW : Print the given pattern

```

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

```

=

```

1   _ _ _
2   _ _
3   _
4

```

```

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

```

**Number Triangle Reverse**

```

// for(int j=1;j<=n;j++){ // COLS
//     if((i+j)>n) System.out.print("*"+" ");
//     else System.out.print(" "+" ");
// }
// System.out.println();
// }
for(int i=1;i<=n;i++){ // rows
    for(int j=1;j<=n-i;j++){ // spaces
        System.out.print(" "+" ");
    }
    for(int j=1;j<=i;j++){ // stars
        System.out.print(j+" ");
    }
    System.out.println();
}
}

```

Enter n  
6

```

      1
     1 2
    1 2 3
   1 2 3 4
  1 2 3 4 5
 1 2 3 4 5 6

```

Process finished with

```

// for(int j=1;j<=n;j++){ // COLS
//     if((i+j)>n) System.out.print("*"+" ");
//     else System.out.print(" "+" ");
// }
// System.out.println();
// }
for(int i=1;i<=n;i++){ // rows
    for(int j=1;j<=n-i;j++){ // spaces
        System.out.print(" "+" ");
    }
    for(int j=1;j<=i;j++){ // stars
        System.out.print((char)(j+64)+" ");
    }
    System.out.println();
}
}

```

Enter n  
5

```

      A
     A B
    A B C
   A B C D
  A B C D E

```

Process finished with

## HW : Print the given pattern

1   \_ \_ \_ \* \* \* \*  
 2   \_ \_ \* \* \* \*  
 3   \_ \* \* \* \*  
 4   \* \* \* \*  
 ↓    $n=4$   
 i

=

1   \_ \_ \_  
 2   \_ \_  
 3   \_  
 4   .

+

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

Rhombus

2:39

```

public class NumberSquare {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter n ");
        int n = sc.nextInt();
        for(int i=1;i<=n;i++){ // rows
            for(int j=1;j<=n;j++){ // cols
                System.out.print("*"+" ");
            }
            System.out.println();
        }
    }
}

```

Run: NumberSquare

/Library/Java/JavaVirtualMachine

Enter n

5

```

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

```

Process finished with exit code





```

        System.out.print("*"+" ");
    }
    System.out.println();

    int nsp = n-1, nst = n;
    for(int i=1;i<=n;i++){ // lines
        for(int j=1;j<=nsp;j++){ // spaces
            System.out.print(" "+" ");
        }
        for(int j=1;j<=nst;j++){ // stars
            System.out.print("*"+" ");
        }
        nsp--;
        // nst += 1;
        System.out.println();
    }
}

```

/Library/Java/JavaVirtual

Enter n

5

```

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

```

Process finished with ex:

**\*\*Ques** : Print the given pattern

*n=3*

```

1  _ _ _ *
2  _ _ ***
3  _ _ ****
4  _ _ *****

```

*nsp=n-1, nsp--  
nst = 1, nst +=2*

---

```

1  _ **** *
2  _ _ ***
3  _ _ _ **

```

*nsp=1, nsp++  
nst = 2n-3, nst -= 2*

*n=4*

Star Diamond

2:39



```
System.out.println();
}
int nsp = n-1, nst = 1;
for(int i=1;i<=n;i++){ // lines
    for(int j=1;j<=nsp;j++){ // spaces
        System.out.print(" "+" ");
    }
    for(int j=1;j<=nst;j++){ // stars
        System.out.print("*"+" ");
    }
    nsp--;
    nst += 2;
    System.out.println();
}
```

Enter n  
5

```

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

```

Process finished with

```
    nst += 2;
    System.out.println();
}
nsp = 1; nst = 2*n-3;
for(int i=1;i<=n-1;i++){ // lines
    for(int j=1;j<=nsp;j++){ // spaces
        System.out.print(" "+" ");
    }
    for(int j=1;j<=nst;j++){ // stars
        System.out.print("*"+" ");
    }
    nsp++;
    nst -= 2;
    System.out.println();
}
}
```

Enter n  
4

```

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

```

Process finished with exit



