

Pattern Programming

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7) 12345678910 ----- -----upto50	8) 1 3 4 5 7 9 ----- ----up to 50	9) 2 4 6 8 10 ----- up to 50	10) abcdef abcdef abcdef		

Floyd's Triangle Pattern

```

public class RightTrianglePattern
{
    public static void main(String args[])
    {
        //i for rows and j for columns
        //row denotes the number of rows you want to print
        int i, j, row=6;
        //outer loop for rows
        for(i=0; i<row; i++)
        {
            //inner loop for columns
            for(j=0; j<=i; j++)
            {
                //prints stars
                System.out.print("* ");
            }
            //throws the cursor in a new line after printing each line
            System.out.println();
        }
    }
}

```

```

import java.util.Scanner;
public class Downwardtriangle
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter the number of
rows: "); //takes input from user

        int rows = sc.nextInt();

        for (int i = rows-1; i>=0 ; i--)
        {
            for (int j=0; j<=i; j++)
            {
                System.out.print("*" + " ");
            }
            System.out.println();
        }
        sc.close();
    }
}

```

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

16 17 18 19 20 21

22 23 24 25 26 27 28

```
public class Pattern2
{
    public static void main(String[] args)
    {
        int i, j, k = 1;
        //inner loop
        for (i = 1; i <= 7; i++)
        {
            //outer loop
            for (j = 1; j < i + 1; j++)
            {
                //prints the value of k
                System.out.print(k++ + " ");
            }
            //throws the cursor at the next line
            System.out.println();
        }
    }
}
```

Pascal's Triangle Pattern

1

1 1

1 2 1

1 3 3 1

1 4 6 4 1

1 5 10 10 5 1

1 6 15 20 15 6 1

```
public class Pattern3
{
    public static void main(String[] args)
    {
        int n = 7; //n is the number of rows you want to print
        for (int i = 0; i < n; i++)
        {
            int number = 1;
            System.out.printf("%" + (n - i) * 2 + "s", "");
            for (int j = 0; j <= i; j++)
            {
                System.out.printf("%4d", number);
                number = number * (i - j) / (j + 1);
            }
            System.out.println();
        }
    }
}
```

Pyramid Program

```

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

```
public class PyramidPattern
{
    public static void main(String args[])
    {
        //i for rows and j for columns
        //row denotes the number of rows you want to print
        int i, j, row = 6;
        //Outer loop work for rows
        for (i=0; i<row; i++)
        {
            //inner loop work for space
            for (j=row-i; j>1; j--)
            {
                //prints space between two stars
                System.out.print(" ");
            }
            //inner loop for columns
            for (j=0; j<=i; j++ )
            {
                //prints star
                System.out.print("* ");
            }
        }
    }
}
```