Pattern 1: Simple Star Triangle

```
class StarTriangle {
   public static void main(String[] args) {
      int i, j;
      for (i = 0; i <= 5; i++) {
         for (j = 0; j <= i; j++) {
            System.out.print("*");
         }
         System.out.println("");
      }
   }
}
```

Output:

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

Pattern 2: Number Repetition Triangle

```
import java.util.Scanner;
class NumberRepetition {
   public static void main(String[] args) {
      int i, j, rows;
```

```
        System.out.println("Enter the number of rows : ");
        Scanner in = new Scanner(System.in);
        rows = in.nextInt();
        for (i = 0; i <= rows; i++) {
           for (j = 0; j <= i; j++) {
              System.out.print(i);
           }
           System.out.println("");
        }
     }
}
```

Sample Input/Output:

```
Enter the number of rows :
5
0
11
222
3333
44444
555555
```

Pattern 3: Right-Aligned Star Triangle

```
import java.util.Scanner;
class RightAlignedTriangle {
    public static void main(String[] args) {
```

```
        int i, j, n;
        System.out.println("Enter the number of rows : ");
        Scanner in = new Scanner(System.in);
        n = in.nextInt();
        for (i = 0; i <= n; i++) {
           for (j = 0; j <= n; j++) {
              if ((i + j) < n)
                 System.out.print(" ");
              else
                 System.out.print("*");
           }
           System.out.println("");
        }
    }
}
```

Sample Input/Output:

```
19
Enter the number of rows :
5
    *
   **
  ***
 ****
*****
******
```

Pattern 4: Centered Number Triangle

```
import java.util.Scanner;

class CenteredTriangle {

   public static void main(String[] args) {

      System.out.println("Enter the number of rows : ");

      Scanner in = new Scanner(System.in);

      int n = in.nextInt();


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

         // Print leading spaces for centering

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

            System.out.print(" ");

         }

         // Print numbers

         for (j = 1; j <= i; j++) {

            System.out.print(" " + i);

         }

         System.out.println("");

      }

   }

}
```

Sample Input/Output:

Enter the number of rows :

5

1

2 2

3 3 3

4 4 4 4

5 5 5 5 5

Pattern 5: Inverted Number Pyramid

```
import java.util.Scanner;
class InvertedPyramid {
    public static void main(String[] args) {
        System.out.println("Enter the number of rows : ");
        Scanner in = new Scanner(System.in);
        int n = in.nextInt();
                for (i = n; i >= 1; i--) {
            // Print leading spaces
            for (int k = 1; k <= (n - i); k++) {
                System.out.print(" ");
            }
            // Print numbers (2*i-1 times for pyramid effect)
            for (int j = 1; j <= 2 * i - 1; j++) {
                System.out.print(i);
            }
            System.out.println("");
        }
    }
```

}

Sample Input/Output:

Enter the number of rows :

5

555555555

 4444444

  33333

   222

    1