ASSIGNMENT-5

1.Write a program to print the pattern given below

1

3*2

4*5*6

10*9*8*7

11*12*13*14*15

CODE:

public class Main{

 static void printPattern(int n)

 {

 int j, k = 0;

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

 if (i % 2 != 0) {

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

 System.out.print(j + "*");

 System.out.println(j++);

```java
        k = j;

    }

    else {

    k = k + i - 1;

    for (j = k; j > k - i + 1; j--)

    System.out.print(j + "*");

    System.out.println(j);

    }

    }

    }
public static void main(String args[])

    {

    int n = 5;

    printPattern(n);

    }

}
```

ONLINE COMPILER ;

Main.java

```java
public class Main{
  static void printPattern(int n)
  {
    int j, k = 0;
    for (int i = 1; i <= n; i++) {
      if (i % 2 != 0) {
        for (j = k + 1; j < k + i; j++)
          System.out.print(j + "*");
        System.out.println(j++);
        k = j;
      }
      else {
        k = k + i - 1;
        for (j = k; j > k - i + 1; j--)
          System.out.print(j + "*");
        System.out.println(j);
      }
    }
  }
  public static void main(String args[])
  {
    int n = 5;
    printPattern(n);
  }
}
```

input | Debug Console

```
1
3*2
4*5*6
10*9*8*7
11*12*13*14*15
```

2.Write a program to find the sum of the series

1 + (1+3) + (1+3+5) + (1+3+5+7) + …… +(1+3+5+7+…+(2n-1))

CODE ;

import java.util.*;
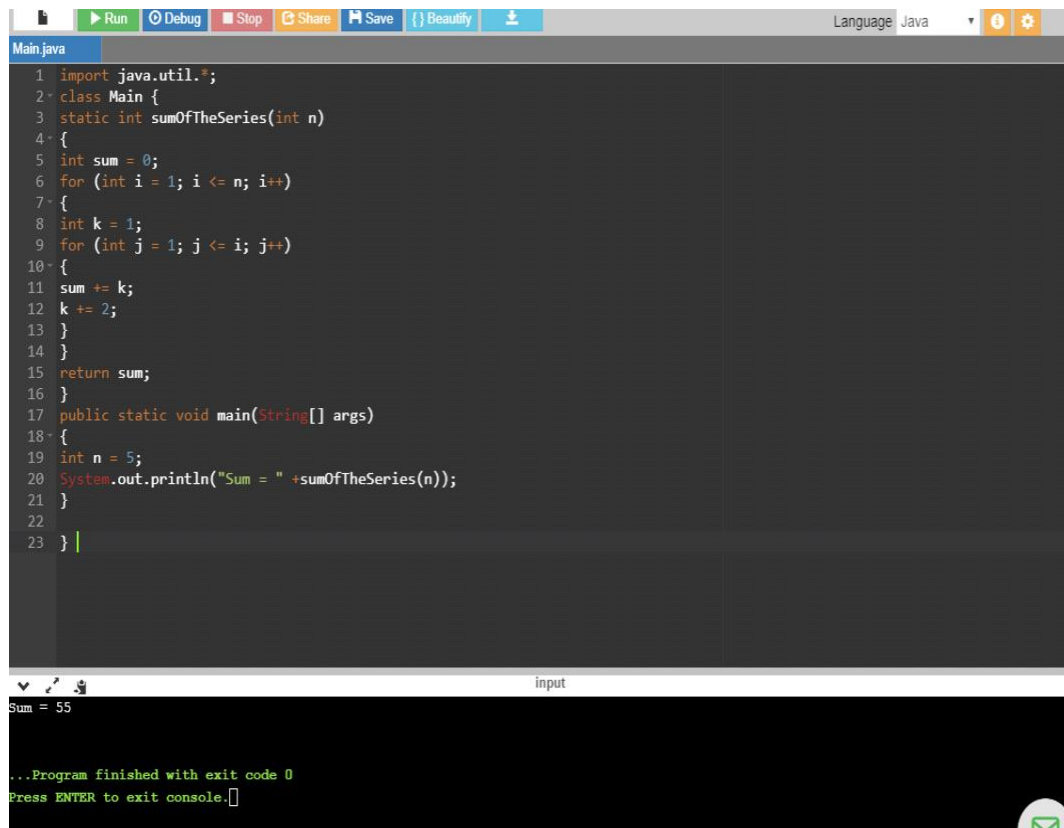
class Main {

static int sumOfTheSeries(int n)

{

int sum = 0;

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

{

int k = 1;

```java
for (int j = 1; j <= i; j++)

{

sum += k;

k += 2;

}

}

return sum;

}

public static void main(String[] args)

{

int n = 5;

System.out.println("Sum = " +sumOfTheSeries(n));

}


}
```

ONLINE COMPILER ;

```java
import java.util.*;
class Main {
static int sumOfTheSeries(int n)
{
int sum = 0;
for (int i = 1; i <= n; i++)
{
int k = 1;
for (int j = 1; j <= i; j++)
{
sum += k;
k += 2;
}
}
return sum;
}
public static void main(String[] args)
{
int n = 5;
System.out.println("Sum = " +sumOfTheSeries(n));
}

}
```

input

```
Sum = 55


...Program finished with exit code 0
Press ENTER to exit console.
```

THANK YOU