

# 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++);  
  
            }  
  
            k = k + i;  
  
        }  
  
    }  
}
```

```
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 ;**

```
1 public class Main{
2     static void printPattern(int n)
3     {
4         int j, k = 0;
5         for (int i = 1; i <= n; i++) {
6             if (i % 2 != 0) {
7                 for (j = k + 1; j < k + i; j++)
8                     System.out.print(j + " ");
9                 System.out.println(j++);
10                k = j;
11            }
12            else {
13                k = k + i - 1;
14                for (j = k; j > k - i + 1; j--)
15                    System.out.print(j + " ");
16                System.out.println(j);
17            }
18        }
19    }
20    public static void main(String args[])
21    {
22        int n = 5;
23        printPattern(n);
24    }
25 }
```

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

$$1 + (1+3) + (1+3+5) + (1+3+5+7) + \dots + (1+3+5+7+\dots+(2n-1))$$

**CODE ;**

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

```
class Main {
```

```
    static int sumOfTheSeries(int n)
```

```
{
```

```
    int sum = 0;
```

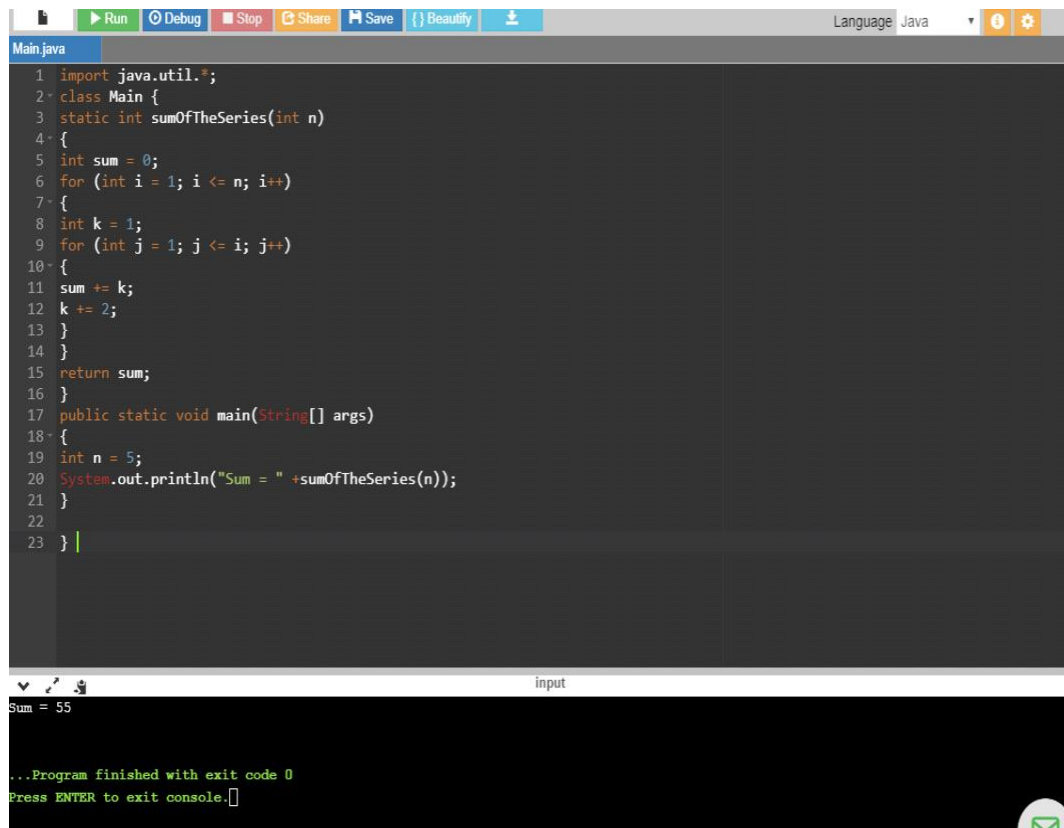
```
    for (int i = 1; i <= n; i++)
```

```
{
```

```
        int k = 1;
```

```
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 ;**



```
1 import java.util.*;
2 class Main {
3     static int sumOfTheSeries(int n)
4     {
5         int sum = 0;
6         for (int i = 1; i <= n; i++)
7         {
8             int k = 1;
9             for (int j = 1; j <= i; j++)
10            {
11                sum += k;
12                k += 2;
13            }
14        }
15        return sum;
16    }
17    public static void main(String[] args)
18    {
19        int n = 5;
20        System.out.println("Sum = " +sumOfTheSeries(n));
21    }
22 }
23
```

input

Sum = 55

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

THANK YOU