Assignment - 2

1)
Write a program to print first n odd numbers.

```
package Secondlab;

import java.util.*;


public class NoddNumber {
    public static void main(String[] args) {
        Odd o1 = new Odd();
        o1.print();
    }
}
class Odd{
    int n,i,temp;
    Scanner sc = new Scanner(System.in);
    void print()
    {
        System.out.println("Enter Number");
        n =  sc.nextInt();

        for(i=1;i<=(2*n);i++)
        {
            if(i%2 == 1)
            {

                if(temp == n){
                    break;
                }
                else
                {
                    System.out.println("Number is:"+i);
                }
                temp++;

            }
```

```
            }
        }
}
```

2)

Write a program to check that the given number is prime or not.

```java
package Secondlab;

import java.util.*;

public class PrimeNumber {
    public static void main(String[] args) {
        Check c1 = new Check();
        c1.print();
    }
}

class Check{
    int n,i = 1,temp = 0;
    Scanner sc = new Scanner(System.in);

    void print()
    {
        System.out.println("Enter Number");
        n = sc.nextInt();
        for(i=2;i<n/2;i++)
        {
            if(n % i == 0)
            {
                temp++;
            }
        }
        if(temp == 2)
        {
            System.out.println("No is prime");
        }
        else
        {
            System.out.println("No is Not Prime");
        }

    }
}
```

3)
Write a program to draw the given patterns.

1)

```java
package Secondlab;
import java.util.Scanner;


public class Pattern1 {
    public static void main(String[] args) {
        Abc  a1 = new Abc();
        a1.print();
    }
}
class Abc{
    int n,i,j;
    Scanner sc = new Scanner(System.in);
    void print()
    {
        System.out.println("Enter number");
        n = sc.nextInt();
        for(i=0;i<n;i++)
         {
             System.out.println();
             for(j=0;j<n;j++)
             {
                System.out.print("*");
             }
         }
    }

}
```

2)

```java
import java.util.*;

public class P2 {
    public static void main(String[] args) {
        Patt2 p2 =  new Patt2();
        p2.print();
    }
}

class Patt2
{
    int i,j,n;
    Scanner sc= new Scanner(System.in);

    void print()
    {
        System.out.println("Enter Number:");
        n =  sc.nextInt();

        for(i=0;i<n;i++)
        {
            System.out.println();
            for(j=0;j<=i;j++)
            {
                System.out.print("*");
            }
        }
    }
}
```

3)

```java
import java.util.Scanner;

public class P3 {
    public static void main(String[] args) {
        Patt3 p =  new Patt3();
        p.print();
    }
}

class Patt3{
    int i,j,n;
    Scanner sc = new Scanner(System.in);

    void print()
    {
        System.out.println("Enter Number:");
        n =  sc.nextInt();

        for(i=0;i<n;i++)
         {
             System.out.println();
            for(j=i;j<n;j++)
            {
                System.out.print("*");
            }
         }
    }
}
```

4)

```
public class pattern4 {
    public static void main(String[] args) {
        Patt4 p4 = new Patt4();
        p4.print();
    }
}
class Patt4{
    void print()
    {
        int i,j;
        System.out.println();
        for( i = 5 ; i > 0 ; i--) {
            for( j = 1 ; j <= 5 ; j++) {
                if(j < i)
                    System.out.print("  ");
                else
                    System.out.print("* ");
            }
            System.out.println();
        }
    }
}
```

5)

```java
import java.util.*;

public class P5 {
    public static void main(String[] args) {
        patte5 p = new  patte5();
         p.print();

    }

}
class patte5{
    int i,j,n;
    Scanner sc = new Scanner(System.in);
    void print()
    {
        System.out.println("Enter number:");
        n = sc.nextInt();
        for ( i = n; i > 0; i--) {
            for ( j = 1; j <= n; j++) {
                if (j < i) {
                    System.out.print(" ");
                }

                else {
                    System.out.print("* ");
                }

            }
            System.out.println();
        }
    }

    }
```

6)

```
public class P7 {
    // implementing the main method
    public static void main(String[] x) {
        patt7 p7 =  new patt7();
        p7.print();
    }
}

class patt7 {
    void print() {
        int k = 5, ast = 0, pos = 1;

        System.out.println();
        for (int i = 0; i < 5; i++) {
            for (int j = 1; j <= 9; j++) {
                if (j < k)
                    System.out.print(" ");
                else {
                    if (ast < pos) {
                        System.out.print("* ");
                        ast++;
                    }
                }
            }
            k--;
            pos = pos + 2;
            ast = 0;
            System.out.println();
        }
        // Reverse logic
        // Reseting necessary variables
        k = 0;
        pos = 7;
        for (int i = 0; i < 5; i++) {
            for (int j = 1; j <= 8; j++) {
                if (j <= k + 1)
                    System.out.print(" ");
                else {
                    if (ast < pos) {
                        System.out.print("* ");
                        ast++;
                    }
```

```
                }
            }
            k++;
            pos = pos - 2;
            ast = 0;
            System.out.println();
        }
    }
}
```

7)

```java
public class P7 {
    public static void main(String[] x) {
        patte7 p7 =  new patte7();
        p7.print();
    }
}

class patte7 {
    void print() {
        int k = 0, ast = 0, pos = 9;

        System.out.println();
        for (int i = 0; i < 5; i++) {
            for (int j = 1; j <= 10; j++) {
                if (j < k + 1)
                    System.out.print(" ");
                else {
                    if (ast < pos) {
                        System.out.print("* ");
                        ast++;
                    }
                }
            }
            k++;
            pos = pos - 2;
            ast = 0;
            System.out.println();
        }

        k = 5;
        pos = 3;
    }
}
```

8)

```java
public class P8 {
    public static void main(String[] args) {
        patt8 p8 = new patt8();
        p8.print();
    }
}

class patt8 {
    void print() {
        int n = 1;
        System.out.println();
        for (int i = 1; i <= 5; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print(n + " ");
                n++;
            }
            System.out.println();
        }
    }
}
```

9)

```
public class P9 {
    public static void main(String[] args) {
        patt9 p9 = new patt9();
        p9.print();
    }
}



class patt9
{
    void print()
    {
        int k = 5, ast = 0, pos = 1;
        System.out.println();
        for(int i = 0 ; i < 4 ; i++)
         {
            for(int j = 1 ; j <= 9 ; j++)
            {
                if(j < k)
                    System.out.print(" ");
                else
                {
                    if(ast < pos)
                    {
                        if(ast == 0 || ast == pos - 1)
                            System.out.print("* ");
                        else
                            System.out.print(" ");
                        ast++;
                    }
                }
        }
        k--;
        pos = pos + 2;
        ast = 0;
        System.out.println();
    }
    for(int i = 0 ; i < 9 ; i++)
         System.out.print("* ");
```

```
    System.out.println();
    }
    }
```

10)

```
public class p10 {
    public static void main(String[] args) {
        patt10 p10 = new patt10();
        p10.print();
    }
}

class patt10 {
    void print() {
        int i,j;
        int k = 5, ast = 0, pos = 1;
        // Implementing the program logic
        System.out.println();
        for ( i = 0; i < 5; i++) {
            for ( j = 1; j <= 9; j++) {
                if (j < k)
                    System.out.print(" ");
                else {
                    if (ast < pos) {
                        if (ast == 0 || ast == pos - 1)
                            System.out.print("* ");
                        else
                            System.out.print(" ");
                        ast++;
                    }
                }
            }
            k--;
            pos = pos + 2;
            ast = 0;
            System.out.println();
            k = 0;
            pos = 7;
            for ( i = 0; i < 5; i++) {
                for ( j = 1; j <= 8; j++) {
                    if (j <= k + 1)
                        System.out.print(" ");
                    else {
                        if (ast < pos) {
                            if (ast == 0 || ast == pos - 1)
                                System.out.print("* ");
                            else
```

```
                                System.out.print(" ");
                            ast++;
                        }
                    }
                }
                k++;
                pos = pos - 2;
                ast = 0;
                System.out.println();
            }

        }

    }
}
```