

Q1 Write a program to print multiples of a number upto a limit. Take inputs from the user.

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.io.*;
class Program1
{
    public static void main(String[] args) throws IOException
    {
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
        System.out.println("Enter a number: ");
        int num1 = Integer.parseInt(br.readLine());

        System.out.println("Enter limits: ");
        int num2 = Integer.parseInt(br.readLine());
        for(int i=1 ; i<num2 ; i++)
        {
            int x=num1*i;
            if(x<=num2)
            {
                System.out.println(x);
            }
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ vim Program1.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ javac Program1.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ java Program1
Enter a number:
6
Enter limits:
60
6
12
18
24
30
36
42
48
54
60
```

Q.2) write a program to print the following pattern & Take no of rows from the user.

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.io.*;
class Program2
{
    public static void main(String[] args) throws IOException
    {
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
        System.out.println("Enter number of rows and columns ");
        int num1 = Integer.parseInt(br.readLine());
        int num2 = Integer.parseInt(br.readLine());

        int x=1;
        for(int i=0 ; i<num1;i++)
        {
            for(int j=0;j<num2;j++)
            {
                if(j%2==0)
                {
                    System.out.print(x*x+" ");
                    x++;
                }
                else if(j%2==1)
                {
                    System.out.print(x+" ");
                    x++;
                }
            }
            System.out.println();
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ vim Program2.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ javac Program2.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ java Program2
Enter number of rows and columns
4
4
1 2 9 4
25 6 49 8
81 10 121 12
169 14 225 16
```

Q3

write a program to print the following pattern & Take no of rows from the user.

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.util.*;
class Program3
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number of rows");
        int num1 = sc.nextInt();

        for(int i=0 ;i<num1; i++)
        {
            int x = 'A'+(num1-1);
            for(int j= 0 ;j<num1;j++)
            {
                System.out.print((char)x+" ");
                x--;
            }
            System.out.println();
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ javac Program3.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ java Program3
Enter number of rows
5
E D C B A
E D C B A
E D C B A
E D C B A
E D C B A
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ vim Program3.java
```

Q4 write a program to print the following pattern using a nested while loop & Take no of rows from the user.

```
Select nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.util.*;
class Program4
{
    public static void main(String[] args)
    {
        System.out.println("Enter number of rows: ");
        Scanner sc = new Scanner(System.in);

        int num1 = sc.nextInt();

        int i=1;
        while(i<=num1)
        {
            int j=1;
            while(j<=i)
            {
                if(j%2==1)
                {
                    System.out.print("1"+" ");
                }
                else
                {
                    System.out.print("0"+" ");
                }
                j++;
            }
            System.out.println();
            i++;
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
^[[A^Cnivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ vim Program4.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ javac Program4.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ java Program4
Enter number of rows:
5
1
1 0
1 0 1
1 0 1 0
1 0 1 0 1
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$
```

Q5 write a program to print the following pattern & Take no of rows from the user.

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.util.*;
class Program5
{
    public static void main(String[] args)
    {
        System.out.println("Enter number of rows: ");
        Scanner sc= new Scanner(System.in);
        int num1 = sc.nextInt();
        int var1=1;
        int i=1;
        while(i<=num1)
        {
            int j=1;
            while(j<=i)
            {
                System.out.print(i*j+" ");
                var1++;
                j++;
            }
            System.out.println();
            i++;
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ vim Program5.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ javac Program5.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ java Program5
Enter number of rows:
5
1
2 4
3 6 9
4 8 12 16
5 10 15 20 25
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ vim Program5.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ _
```

Q6 Write a program to print the tables of 1 to n numbers in reverse order.

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.util.*;
class Program6
{
    public static void main(String[] args)
    {
        System.out.println("Enter n limit:");
        Scanner sc = new Scanner(System.in);
        int num1 = sc.nextInt();

        for(int i=num1;i>=1;i--)
        {
            for(int j= 1;j<=10;j++)
            {
                System.out.print(i*j+" ");
            }
            System.out.println();
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5$ vim Program6.java
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5$ javac Program6.java
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5$ java Program6
Enter n limit:
6
6 12 18 24 30 36 42 48 54 60
5 10 15 20 25 30 35 40 45 50
4 8 12 16 20 24 28 32 36 40
3 6 9 12 15 18 21 24 27 30
2 4 6 8 10 12 14 16 18 20
1 2 3 4 5 6 7 8 9 10
```

Q7 Write a program to print alternative numbers in reverse order between 15 to 30.

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.util.*;
class Program7
{
    public static void main(String[] args){
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int num1 = sc.nextInt();
        System.out.println("Enter second number:");
        int num2 = sc.nextInt();

        //System.out.print(num2);
        for(int i= num2;i>=num1;i--)
        {
            System.out.print(num2+" ");
            num2--;
            num2--;
            if(num2<=num1)
            {
                break;
            }
        }
        System.out.println();
    }
}
~
~
~
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
vim
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ javac Program7.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ java Program7
Enter first number
15
Enter second number:
30
30 28 26 24 22 20 18 16
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$
```

Q8)

Write a program to print the count of even numbers which are divisible by 5 from 1 to 50 .

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.util.*;
class Program8
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter lower limit: ");
        int num1 = sc.nextInt();
        System.out.println("Enter upper limit: ");
        int num2 = sc.nextInt();

        for(int i=num1;i<=num2;i++)
        {
            if(num1%5==0 && num1%2==0)
            {
                System.out.print(num1+", ");
            }
            num1++;
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ vim Program8.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ javac Program8.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ java Program8
Enter lower limit:
1
Enter upper limit:
50
10, 20, 30, 40, 50, nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$
```



Q9 write a program to print the following pattern & Take no of rows from the user.

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
import java.util.*;
class Program9
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number of rows: ");
        int num1 = sc.nextInt();
        int var= 1;
        for(int i=1; i<=num1;i++)
        {
            for(int j = 1;j<=i;j++){

                System.out.print(var+" ");
                var++;
            }
            var--;
            System.out.println();
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5$ vim Program9.java
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5$ javac Program9.java
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5$ java Program9
Enter number of rows:
5
1
1 2
2 3 4
4 5 6 7
7 8 9 10 11
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5$
```

Q10 write a program to print a series of prime numbers from entered range. ( Take a start and end number from user ).

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
class Program11
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter starting point: ");
        int num1 =sc.nextInt();
        System.out.println("Enter ending point: ");
        int num2= sc.nextInt();

        System.out.println("Prime numbers: ");
        while(num1<num2)
        {
            boolean flag = false;
            for(int i=2;i <= num1/2;++i)
            {
                if(num1%i==0)
                {
                    flag = true;
                    break;
                }
                else
                {
                    flag=false;
                }
            }
            if(!flag && num1 != 0 && num1 !=1)
            {
                System.out.print(num1+" ");
            }
            ++num1;
        }
    }
}
```

OUTPUT:

```
nivrutti17@DESKTOP-VG4KRH9: /mnt/e/java/Assignments/Assignment5
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ vim Program11.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ javac Program11.java
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$ java Program11
Enter starting point:
1
Enter ending point:
100
Prime numbers:
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 nivrutti17@DESKTOP-VG4KRH
nivrutti17@DESKTOP-VG4KRH9:/mnt/e/java/Assignments/Assignment5$
```