

1) Java Program to print an Integer Entered by the user

Algorithm:

Step 1 : Start

Step 2 : Import java.util.Scanner

Step 3 : Take Input from the user / create reader instance

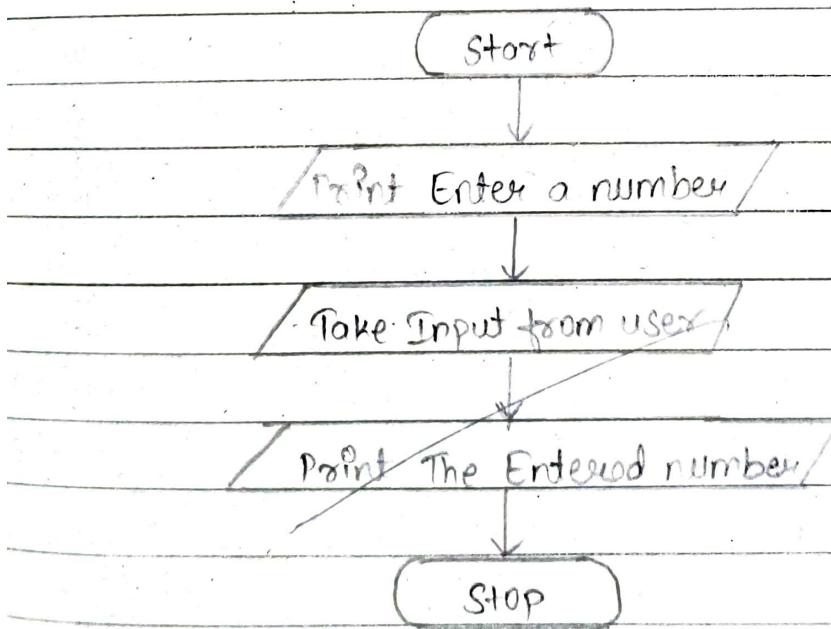
Step 4 : Print Enter a number

Step 5 : Read the number entered by user

Step 6 : Print the entered number

Step 7 : Stop

Flowchart:



Code :

```
import java.util.Scanner;  
public class HelloWorld  
{  
    public static void main (String [] args)  
    {  
        Scanner sc = new Scanner (System.in);  
        System.out.println ("Enter a number: ");  
        int number = sc.nextInt();  
        System.out.print ("You entered: " + number);  
    }  
}
```

Output :

Akshara Singa

IBM22CS029

Enter a number 29

You entered: 29

```
C:\Users\bmsce\Desktop\1bm22cs029>javac HelloWorld.java
C:\Users\bmsce\Desktop\1bm22cs029>java HelloWorld
Akshara Singa
1BM22CS029
Enter a number29
You entered: 29
```

2) Java program to check whether a number is even or odd

### Algorithm

Step 1: Start

Step 2: Print enter a number

Step 3: Take input from user and store in variable num

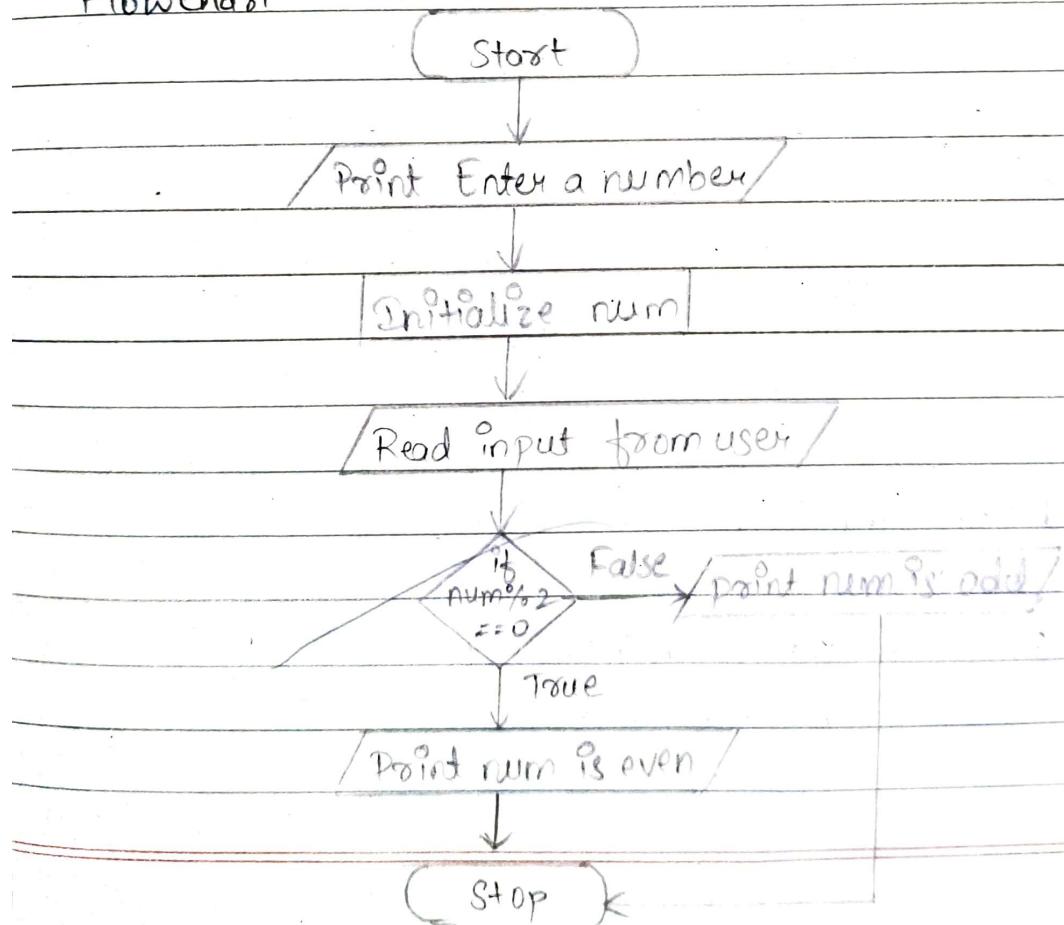
Step 4: Check if  $\text{num} \% 2$  gives remainder 0

Step 5: If true print number is even and goto Step 7 else goto Step 6

Step 6: Print number is odd

Step 7: Stop

### Flowchart



Code

```
import java.util.Scanner;
public class JavaExample
{
    public static void main (String [] args)
    {
        int num;
        System.out.print("Enter an Integer number:");
        Scanner sc = new Scanner (System.in);
        num = sc.nextInt();
        if (num%2 == 0)
            System.out.println (num + " is an even no.");
        else
            System.out.println (num + " is an odd number.");
    }
}
```

Output:

Akshay Singh

IBM22CS029

Enter an Integer number: 29

29 is an odd number

```
C:\Users\bmsce\Desktop\1BN22CS029>javac JavaExample.java
C:\Users\bmsce\Desktop\1BN22CS029>java JavaExample
Akshara Singa
1BN22CS029
Enter an Integer number: 29
29 is an odd number.
```

3) Java program to print right triangle star pattern with eight rows

### Algorithm

Step 1 : Start

Step 2 : Initialize row, column and numberofrows = 8

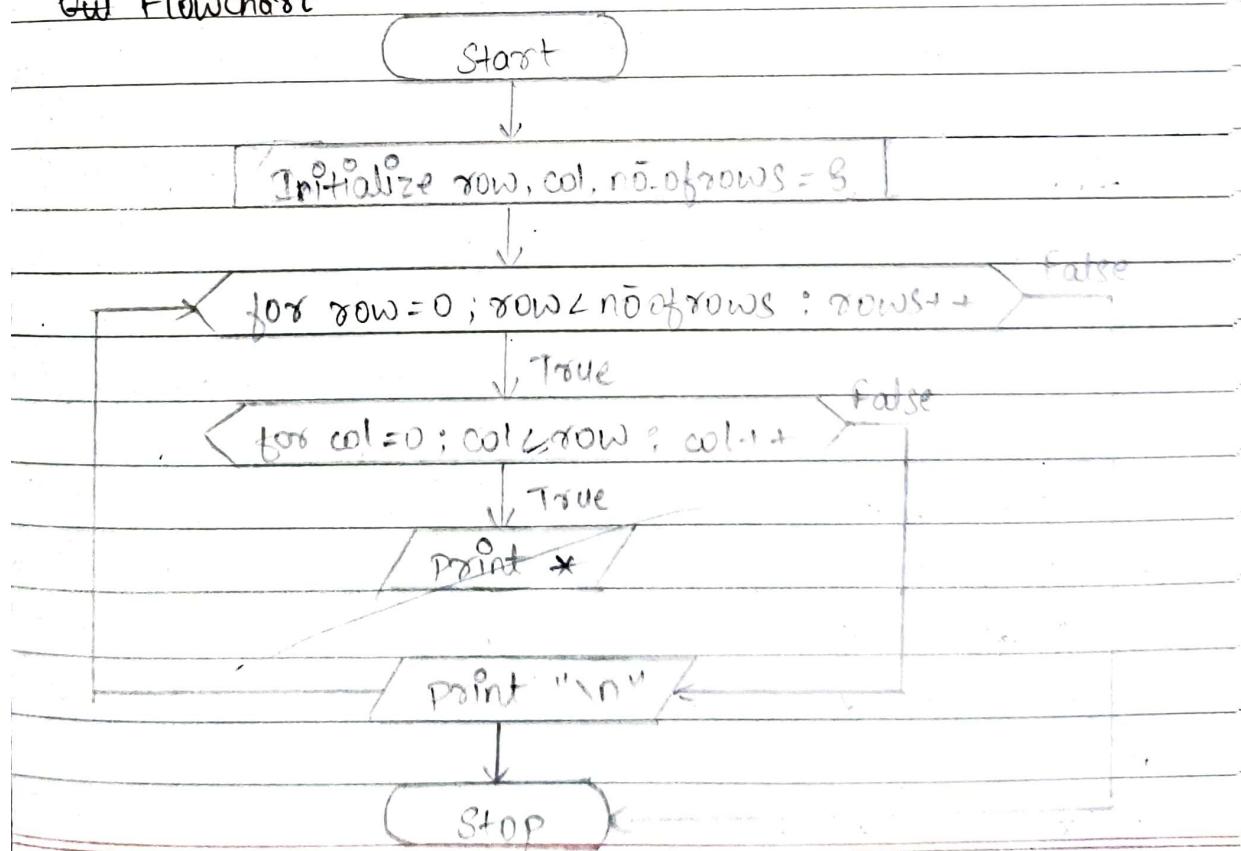
Step 3 : for row less than numberofrows increase row by one else goto step 6

Step 4 : for column less than numberofrows increase column by one else goto step 3 and print newLine

Step 5 : Print \*

Step 6 : Stop

### Q4 Flowchart



Code:

```
public class RightTriangle
{
    public static void main (String [ ] args)
    {
        int row, column, numberofrows = 8;
        for (row = 0; row < numberofrows; row++)
        {
            for (column = 0; column < numberofrows; column++)
            {
                System.out.print ("*");
            }
            System.out.println ();
        }
    }
}
```

Output

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

```
C:\Users\bmsce\Desktop\1bm22cs029>javac RightTriangle.java
```

```
C:\Users\bmsce\Desktop\1bm22cs029>java RightTriangle
Akshara Singa
1BM22CS029
```

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

4) Java program to find quotient and remainder of 15 and 2

Algorithm

Step 1 : Start

Step 2 : Initialize num1 = 15 and num2 = 2

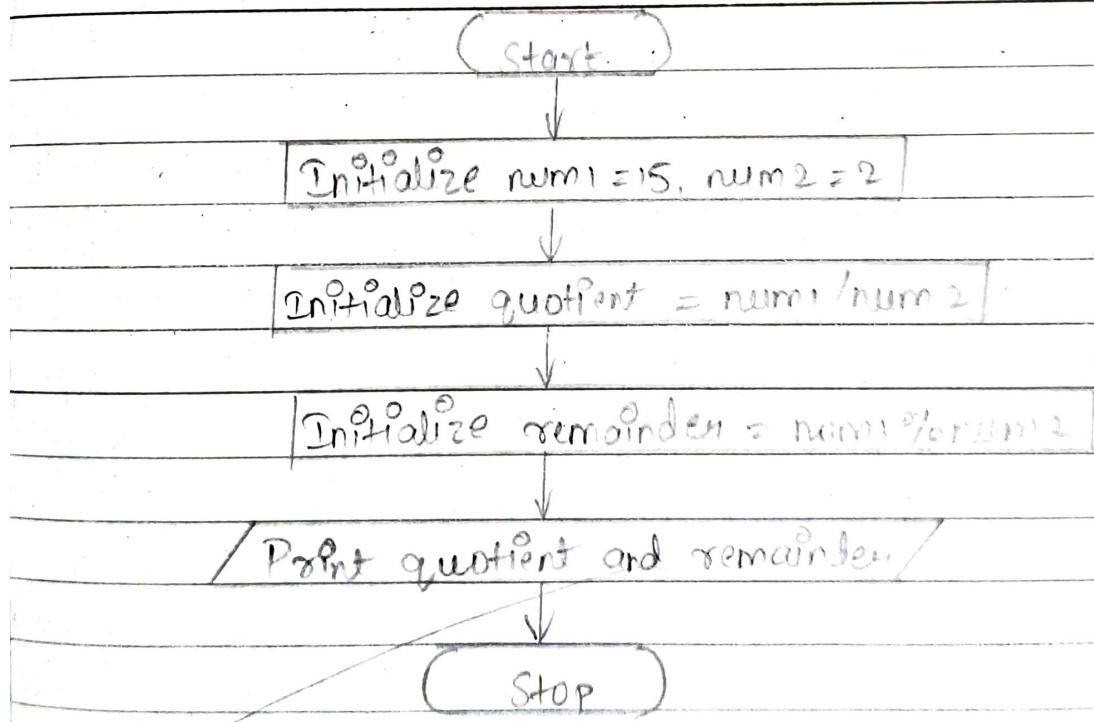
Step 3 : Set quotient = num1 / num2

Step 4 : Set remainder = num1 % num2

Step 5 : Print quotient and remainder

Step 6 : Stop

Flowchart



Code

```
public class QuotientAndRemainder
```

```
{
```

```
    public static void main (String [ ] args)
```

```
{
```

```
        int num1 = 15, num2 = 2;
```

```
        int quotient = num1 / num2;
```

```
        int remainder = num1 % num2;
```

```
        System.out.println ("Quotient is: " + quotient);
```

```
        System.out.println ("Remainder is: " + remainder);
```

```
}
```

```
}
```

Output

Quotient is : 7

Remainder is : 1

```
C:\Users\bmsce\Desktop\1bm22cs029>javac QuotientAndRemainder.java  
C:\Users\bmsce\Desktop\1bm22cs029>java QuotientAndRemainder  
Quotient is: 7  
Remainder is: 1  
Akshara Singa  
1BM222CS029
```

## 5) Java Program to multiply two numbers

### Algorithm

Step 1 : Start

Step 2 : Print Enter first number

Step 3 : Set entered number to num1

Step 4 : Print Enter second number

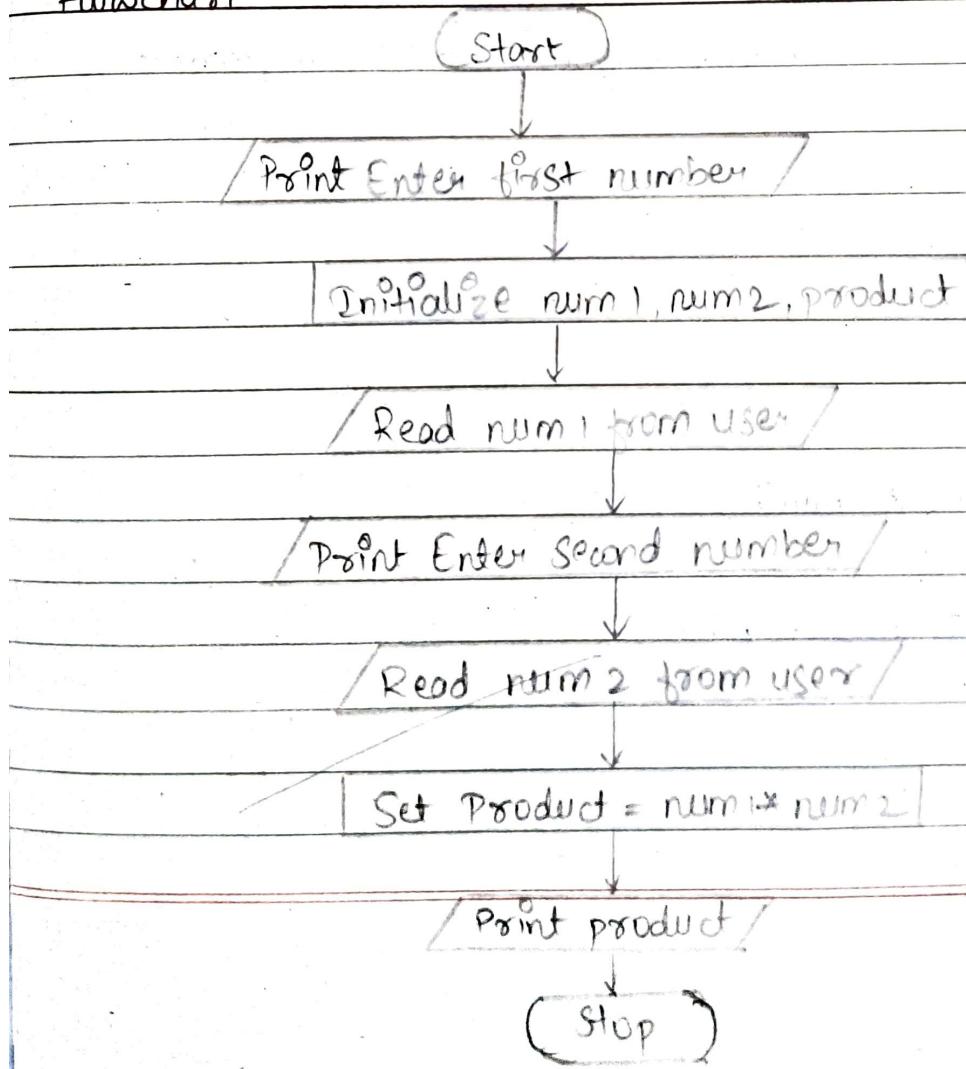
Step 5 : Set entered number to num2

Step 6 : Calculate <sup>and set</sup> product = num1 \* num2

Step 7 : Print product

Step 8 : Stop

### Flowchart



Code

```
import java.util.Scanner;  
public class Multiplication  
{  
    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();  
        sc.close();  
        int product = num1 * num2;  
        System.out.println ("Output: " + product);  
    }  
}
```

Output

Enter first number:

2

Enter second number:

3

Output: 6

C:\Users\bmssc\Desktop\1bm22cs029>javac Multiplication.java

C:\Users\bmssc\Desktop\1bm22cs029>java Multiplication

Enter first number:

2

Enter second number:

3

Output: 6

Akshara Singa

1BM22CS029

6) Swap the floating point numbers 1.2 and 2.45 using a temporary variable

### Algorithm

Step 1 : Start

Step 2 : Initialize num1 = 1.2, num2 = 2.45, temp

Step 3 : Set temp = num1

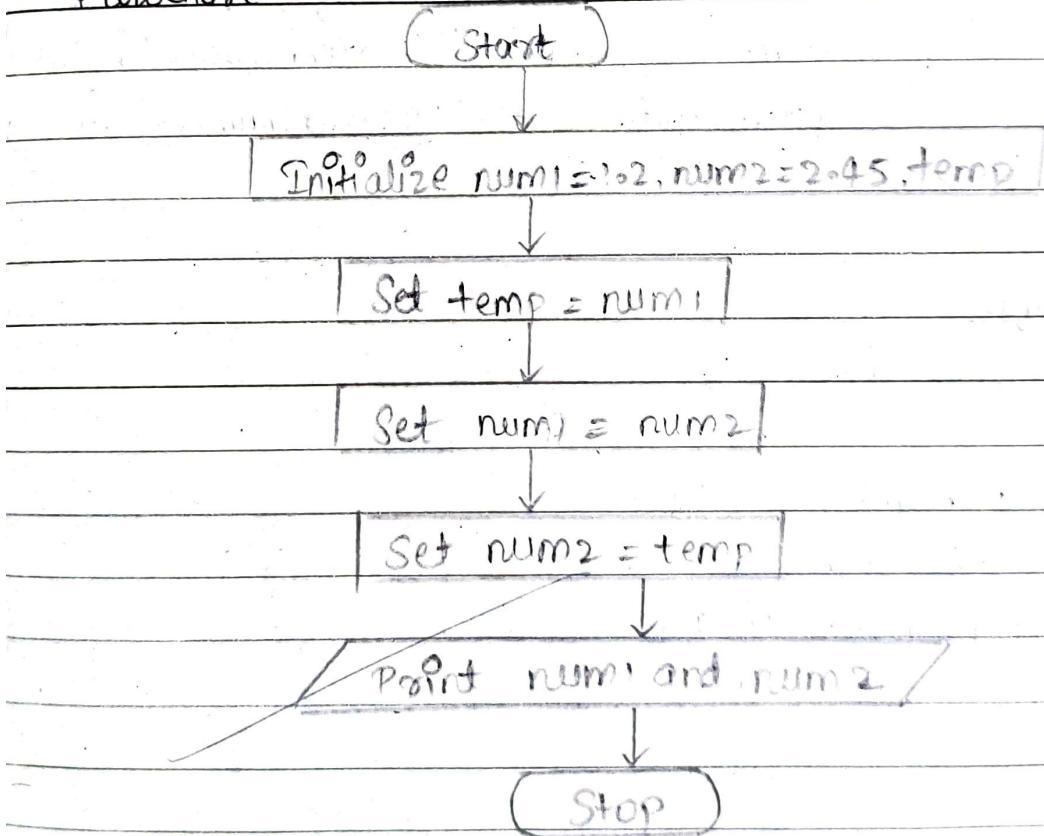
Step 4 : Set num1 = num2

Step 5 : Set num2 = temp num1 and then num1 = temp

Step 6 : Print num1 and num2

Step 7 : Stop

### Flowchart



Code

```
public class Swapnumbers
```

```
{
```

```
    public static void main (String [ ] args)
```

```
{
```

```
        float first = 1.20f , second = 2.45f;
```

```
        System.out.println ("-- Before Swap --");
```

```
        System.out.println ("First number = " + first);
```

```
        System.out.println ("Second number = " + second);
```

```
        float temporary = first;
```

```
        first = second;
```

```
        second = temporary;
```

```
        System.out.println ("-- After Swap --");
```

```
        System.out.println ("First number = " + first);
```

```
        System.out.println ("Second number = " + second);
```

```
}
```

3

Output

-- Before Swap --

First number = 1.2

Second number = 2.45

-- After Swap --

First number = 2.45

Second number = 1.2

```
C:\Users\bmsce\Desktop\1bm22cs029>javac SwapNumbers.java
C:\Users\bmsce\Desktop\1bm22cs029>java SwapNumbers
--Before swap--
First number= 1.2
Second number= 2.45
--After swap--
First number = 2.45
Second number= 1.2
Akshara Singa
1BM22CS029
```