/\*

\* Name: Mauli Pralhad Bondare

\* Roll no.: 68

\* Batch: D

\* Assignment No: 1

\*/

import java.util.\*;

class Complex\_No {

float real, imag;

public Complex\_No() {

real = 0;

imag = 0;

}

public Complex\_No(float a, float b) {

real = a;

imag = b;

}

public void Display(Complex\_No C\_1, Complex\_No C\_2) {

System.out.println("1st Complex Number: (" + C\_1.real + ")+(" + C\_1.imag

+ ")i");

System.out.println("2nd Complex Number: (" + C\_2.real + ")+(" + C\_2.imag

+ ")i");

}

public void Add(Complex\_No C\_1, Complex\_No C\_2) {

float real = C\_1.real + C\_2.real;

float imag = C\_1.imag + C\_2.imag;

System.out.println("Addition of Complex Numbers: (" + real + ")+(" +

imag + ")i");

}

public void Sub(Complex\_No C\_1, Complex\_No C\_2) {

float real = C\_1.real - C\_2.real;

float imag = C\_1.imag - C\_2.imag;

System.out.println("Subtraction of Complex Numbers: (" + real + ")+(" +

imag + ")i");

}

public void Mul(Complex\_No C\_1, Complex\_No C\_2) {

float real = C\_1.real \* C\_2.real - C\_1.imag \* C\_2.imag;

float imag = C\_1.real \* C\_2.imag + C\_1.imag \* C\_2.real;

System.out.println("Multiplication of Complex Numbers: (" + real + ")+("

+ imag + ")i");

}

public void Div(Complex\_No C\_1, Complex\_No C\_2) {

float denominator = C\_2.real \* C\_2.real + C\_2.imag \* C\_2.imag;

float real = (C\_1.real \* C\_2.real + C\_1.imag \* C\_2.imag) / denominator;

float imag = (C\_1.imag \* C\_2.real - C\_1.real \* C\_2.imag) / denominator;

System.out.println("Division of Complex Numbers: (" + real + ")+(" +

imag + ")i");

}

}

class Mauli1 {

public static void main(String[] args) {

float n1, n2;

Complex\_No calculate = new Complex\_No();

Scanner scan = new Scanner(System.in);

System.out.print("Enter real number of 1st number: ");

n1 = scan.nextFloat();

System.out.print("Enter imaginary number of 1st number: ");

n2 = scan.nextFloat();

Complex\_No C\_1 = new Complex\_No(n1, n2);

System.out.print("Enter real number of 2nd number: ");

n1 = scan.nextFloat();

System.out.print("Enter imaginary number of 2nd number: ");

n2 = scan.nextFloat();

Complex\_No C\_2 = new Complex\_No(n1, n2);

scan.close();

calculate.Display(C\_1, C\_2);

calculate.Add(C\_1, C\_2);

calculate.Sub(C\_1, C\_2);

calculate.Mul(C\_1, C\_2);

calculate.Div(C\_1, C\_2);

}

}

Output:

