

```

.....practicle 1.....
import java.util.Scanner;
public class Complex {
    float real,img;
    public Complex() {
        real=0;
        img=0;
    }
    public Complex(float a,float b) {
        real=a;
        img=b;
    }
    void display(Complex C1,Complex C2) {
        System.out.println("First complex number
is="+C1.real+")"+"(+C1.img+") i");
        System.out.println("Second complex number
is="+C2.real+")"+"(+C2.img+") i");
    }
    void add(Complex C1,Complex C2) {
        float real,img;
        real=C1.real+C2.real;
        img=C1.img+C2.img;
        System.out.println("Addition is="+real+")"+"(+img+") i");
    }
    void sub(Complex C1,Complex C2) {
        float real,img;
        real=C1.real-C2.real;
        img=C1.img-C2.img;
        System.out.println("Substraction is="+real+")"+"(+img+") i");
    }
    void multiplication(Complex C1,Complex C2) {
        float real,img;
        real=C1.real*C2.real;
        img=C1.img*C2.img;
        System.out.println("Multiplication
is="+real+")"+"(+img+") i");
    }
    void division(Complex C1,Complex C2) {
        float real,img;
        real=C1.real/C2.real;
        img=C1.img/C2.img;
        System.out.println("Division is="+real+")"+"(+img+") i");
    }
}

public static void main(String[] args) {
    // TODO Auto-generated method stub
    float num1,num2;
    Scanner sc=new Scanner(System.in);
    Complex a=new Complex();
    System.out.println("Enter complex number in formate a+bi:");

    System.out.println("Enter real part of first number:");
    num1=sc.nextFloat();
    System.out.println("Enter imaginary part of first number:");
    num2=sc.nextFloat();
    Complex comp1=new Complex(num1,num2);

```

```

        System.out.println("Enter real part of second number:");
        num1=sc.nextFloat();
        System.out.println("Enter imaginary part of second number:");
        num2=sc.nextFloat();
        Complex comp2=new Complex(num1,num2);

        a.display(comp1,comp2);
        a.add(comp1,comp2);
        a.sub(comp1,comp2);
        a.multiplication(comp1,comp2);
        a.division(comp1,comp2);

    }
}

```

```

.....Output.....
Enter complex number in formate a+bi:
Enter real part of first number:
3
Enter imaginary part of first number:
4
Enter real part of second number:
7
Enter imaginary part of second number:
8
First complex number is=(3.0)+(4.0)i
Second complex number is=(7.0)+(8.0)i
Addition is=(10.0)+(12.0)i
Substraction is=(-4.0)+(-4.0)i
Multiplication is=(21.0)+(32.0)i
Division is=(0.42857143)+(0.5)i

```