**package** oop;

**import** java.util.Scanner;

**class** complexNo{

**float** real,img;

**public** complexNo() {

real=0;

img=0;

}

**public** complexNo(**float** a, **float** b) {

real=a;

img=b;

}

**public** **void** display(complexNo C1,complexNo C2) {

System.***out***.println("first complex no is ("+C1.real+")+("+C1.img+")i");

System.***out***.println("second complex no is ("+C2.real+")+("+C2.img+")i");

}

**public** **void** addnum(complexNo C1,complexNo C2) {

**float** Real,Img;

Real=(C1.real+C2.real);

Img=(C1.img+C2.img);

System.***out***.println("addition of two numbers is ("+Real+")+("+Img+")i");

}

**public** **void** subnum(complexNo C1,complexNo C2) {

**float** Real,Img;

Real=(C1.real-C2.real);

Img=(C1.img-C2.img);

System.***out***.println("substraction of two numbers is ("+Real+")+("+Img+")i");

}

**public** **void** mulnum(complexNo C1,complexNo C2) {

**float** Real,Img;

Real=(C1.real\*C2.real)-(C1.img\*C2.img);

Img=(C1.img\*C2.img)+(C1.img\*C2.real);

System.***out***.println("multiplication of two numbers is ("+Real+")+("+Img+")i");

}

**public** **void** divnum(complexNo C1,complexNo C2) {

**float** Real,Img;

Real=(C1.real\*C2.real +C1.img\*C2.img)/(C2.real\*C2.real+C2.img\*C2.img);

Img=(C1.img\*C2.real-C1.real\*C2.img)/(C2.real\*C2.real+C2.img\*C2.img);

System.***out***.println("division of two numbers is ("+Real+")+("+Img+")i");

}

}

**public** **class** Main {

**public** **static** **void** main(String[] args) {

**float** num1,num2,num3,num4;

complexNo cal=**new** complexNo();

Scanner Sc=**new** Scanner(System.***in***);

System.***out***.println("Enter the real part of first number");

num1=Sc.nextFloat();

System.***out***.println("Enter the img part of first number");

num2=Sc.nextFloat();

complexNo com1=**new** complexNo(num1,num2);

System.***out***.println("Enter the real part of second number");

num3=Sc.nextFloat();

System.***out***.println("Enter the img part of second number");

num4=Sc.nextFloat();

complexNo com2=**new** complexNo(num3,num4);

Sc.close();

cal.display(com1, com2);

cal.addnum(com1, com2);

cal.subnum(com1, com2);

cal.mulnum(com1, com2);

cal.divnum(com1, com2);

}

}