1. Create a complex class with two data members real and imag. Here real and imag are used to denote the real and imaginary part of any complex number. Here we use three methods--(i) getdata() is used to initialize the data members (ii) multiply() is used to compute the multiplication of two complex numbers and (iii) disp() is used to display the result. Now design a main class to multiply two complex objects and display the result.

Code :

public class complex\_mul {

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

Complex c1 = new Complex(args[0], args[1]);

Complex c2 = new Complex(args[2], args[3]);

Complex product = c1.multiply(c2);

product.display();

}

}

class Complex{

double real, img;

Complex(String real, String img) {

this.real = Double.parseDouble(real);

this.img = Double.parseDouble(img);

}

Complex multiply(Complex c) {

Complex product = new Complex("0.0", "0.0");

product.real = this.real \* c.real - this.img \* c.img;

product.img = this.real \* c.img + this.img \* c.real;

return product;

}

public void display(Complex c) {

System.out.println(c.real+"+"+c.img+"i");

}

}