Question 1:

```java
import java.util.Scanner;

class complex{

void add(int a,int ai,int b,int bi){
    int c=a+b;
    int ci = ai+bi;
    System.out.println("sum of complex numbers= "+c+"+i"+ci);
}

void diff(int a,int ai,int b,int bi){
    int c=a-b;
    int ci = ai-bi;
    System.out.println("differences complex numbers= "+c+"+i"+ci);
}

void product(int a,int ai,int b,int bi){
    int c=a*b - ai*bi;
    int ci = a*bi + b*ai;
    System.out.println("product of complex numbers= "+c+"+i"+ci);
}

public static void main(String[] args){
    Scanner myin = new Scanner(System.in);
    System.out.println("print real part of first number");
    int a=myin.nextInt();
    System.out.println("print complex part of first number");
    int ia = myin.nextInt();
    System.out.println("print real part of second number");
    int b=myin.nextInt();
```

```java
    System.out.println("print complex part of second number");

    int ib = myin.nextInt();

    complex z = new complex();

    z.add(a,ia,b,ib);

    z.diff(a,ia,b,ib);

    z.product(a,ia,b,ib);

}

}
```

```
PS D:\oops in java\25092023> javac q1.java
PS D:\oops in java\25092023> java complex
print real part of first number
4
print complex part of first number
6
print real part of second number
1
print complex part of second number
8
sum of complex numbers= 5+i14
differences complex numbers= 3+i-2
product of complex numbers= -44+i38
PS D:\oops in java\25092023>
```

Question 2:

import java.util.Scanner;


```java
class vehicle{

    int capacity;

    Scanner myin = new Scanner(System.in);

    int fare(){

        return capacity*100;

    }

}


class bus extends vehicle{

    int fare(){

        System.out.println("Enter the capacity of bus");

        capacity = myin.nextInt();
```

```java
        int f = super.fare();

        return f+f/10;

    }

}


class q2{

public static void main(String[] args){

    bus b = new bus();

    int fr=b.fare();

    System.out.println("total fare= " + fr);

}


}
```

```
PS D:\oops in java\25092023> javac q2.java
PS D:\oops in java\25092023> java q2
Enter the capacity of bus
60
total fare= 6600
PS D:\oops in java\25092023> javac q2.java
PS D:\oops in java\25092023> java q2
Enter the capacity of bus
50
total fare= 5500
PS D:\oops in java\25092023>
```