

```
1 package Lab0;
2
3 Real: 20 Imaginary: 20
4 Real: 40 Imaginary: 50
5 Real: 20 Imaginary: 30
6 Real: 20 Imaginary: 70
7 Real: 60 Imaginary: 70
8 Real: 20 Imaginary: 20
9 Real: 60 Imaginary: 70
10 Process finished with exit code 0
11
12
13 public class ComplexNumber {
14     private int real;
15     private int imaginary;
16
17     public ComplexNumber() {
18         real = 0;
19         imaginary = 0;
20     }
21
22     public ComplexNumber(int val) {
23         this.real = val;
24         this.imaginary = val;
25     }
26
27     public ComplexNumber(int real, int imaginary) {
28         this.real = real;
29         this.imaginary = imaginary;
30     }
31
32     public ComplexNumber(ComplexNumber complexNumber) {
33         this.real = complexNumber.real;
34         this.imaginary = complexNumber.imaginary;
35     }
36
37     public ComplexNumber add(ComplexNumber num1, ComplexNumber num2) {
38         this.real = num1.real + num2.real;
39         this.imaginary = num1.imaginary + num2.imaginary;
40
41         return this;
42     }
43
44     public ComplexNumber add(ComplexNumber num) {
45         this.real += num.real;
46         this.imaginary += num.imaginary;
47     }
48
49     public void display() { System.out.println("Real: " + this.real + " Imaginary: " + this.imaginary); }
50
51     public static void main(String[] args) {
52         ComplexNumber complexNumber1 = new ComplexNumber();
53         ComplexNumber complexNumber2 = new ComplexNumber( val: 10);
54         ComplexNumber complexNumber3 = new ComplexNumber( real: 20 , imaginary: 30);
55         ComplexNumber complexNumber4 = new ComplexNumber(complexNumber2);
56
57         complexNumber4.add(10);
58         complexNumber4.display();
59
60         complexNumber1.add(complexNumber3, complexNumber4);
61         complexNumber1.display();
62
63         complexNumber3.display();
64
65         complexNumber4.display();
66
67         ComplexNumber complexNumber5 = complexNumber1.add(complexNumber4);
68
69         complexNumber1.display();
70         complexNumber4.display();
71         complexNumber5.display();
72     }
73 }
```