

```
1 package Lab06;
2
3 public class ComplexNumber {
4     private int real;
5     private int imaginary;
6
7     public ComplexNumber() {
8         real = 0;
9         imaginary = 0;
10    }
11
12    public ComplexNumber(int imaginary) {
13        real = 0;
14        this.imaginary = imaginary;
15    }
16
17    public ComplexNumber(int real, int imaginary) {
18        this.real = real;
19        this.imaginary = imaginary;
20    }
21
22    public static ComplexNumber addComp(int a, ComplexNumber cn1) {
23        return new ComplexNumber(cn1.real+a,cn1.imaginary);
24    }
25
26    public static ComplexNumber addComp(ComplexNumber cn1, ComplexNumber cn2) {
27        return cn1.addComp(cn2);
28    }
29
30    public ComplexNumber addComp(ComplexNumber cn1) {
31        return new ComplexNumber(real + cn1.real, imaginary + cn1.imaginary);
32    }
33
34    @Override
35    public String toString() {
36        return String.format("(%d%+di)", real, imaginary);
37    }
38
39    public static void main(String[] args) {
40        ComplexNumber cn1 = new ComplexNumber(5, 3);
41        ComplexNumber cn2 = new ComplexNumber(7, 2);
42
43        System.out.println("cn1: " + cn1);
44        System.out.println("cn2: " + cn2);
45        System.out.println("cn1 + 2: " + ComplexNumber.addComp(2, cn1));
46        System.out.println("cn1 + cn2: " + ComplexNumber.addComp(cn1, cn2));
47        System.out.println("cn1 + (3-7i): " + cn1.addComp(new ComplexNumber(3, -7)));
48    }
49 }
50
51 }
52
```