

OBJECT ORIENTED PROGRAMMING LAB**Experiment No.: 3****Aim**

Add complex numbers

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PROCEDURE

```
import java.util.Scanner;
```

```
class Complex
```

```
{
```

```
    int real, imaginary;
```

```
    Complex()
```

```
    {
```

```
    }
```

```
    Complex(int tempReal, int tempImaginary)
```

```
    {
```

```
        real = tempReal;
```

```
        imaginary = tempImaginary;
```

```
    }
```

```
    Complex addComp(Complex C1, Complex C2)
```

```
    {
```

```
        Complex temp = new Complex();
```

```
        temp.real = C1.real + C2.real;
```

```
        temp.imaginary = C1.imaginary + C2.imaginary;
```

```
        return temp;
    }

    void printComplexNumber()
    {
        System.out.println("Complex number: "
            + real + " + "
            + imaginary + "i");
    }
}
```

// Main Class

```
public class ComplexNumber
{
    public static void main(String[] args)
    {

        Complex C1 = new Complex(3, 2);

        C1.printComplexNumber();

        Complex C2 = new Complex(9, 5);

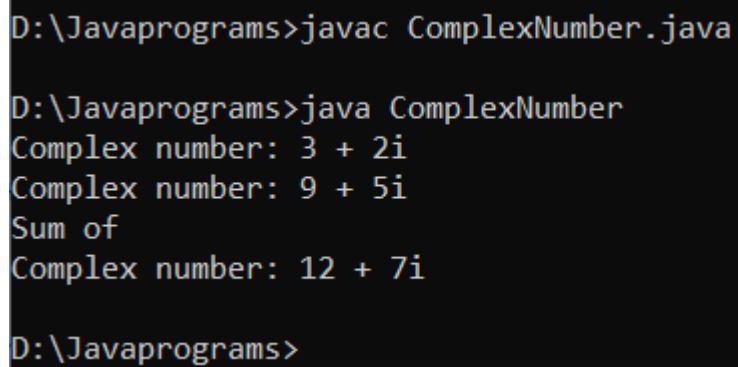
        C2.printComplexNumber();

        Complex C3 = new Complex();

        C3 = C3.addComp(C1, C2);
    }
}
```

```
        System.out.println("Sum of ");  
        C3.printComplexNumber();  
  
    }  
}
```

OUTPUT



```
D:\Javaprograms>javac ComplexNumber.java  
  
D:\Javaprograms>java ComplexNumber  
Complex number: 3 + 2i  
Complex number: 9 + 5i  
Sum of  
Complex number: 12 + 7i  
  
D:\Javaprograms>
```