**The Complex class:**

Devise a class called **Complex** for the addition, subtraction, multiplication, and division of complex numbers. A complex number is represented as (A+iB), where A is the real part, B is the imaginary part, and i = sqrt(-1) called ‘iota’. The following expressions show how arithmetic can be performed on any two complex numbers A and B to produce a resultant complex number. Note that R and I are the real and imaginary parts of the resultant complex number.

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* You have to write 2 versions of each method to perform the above given operations on Complex numbers.
  + static Complex **addComplex**(Complex A, Complex B);
  + void **addComplex**(Complex B); // updates the calling object

Note that the above methods are analoguous to the versions of method addPolynomial in your Lab Assignment 1. For your reference, the solution to Lab Assignment 1 is also uploaded. Similar versions of methods should be created for **Subtract**, **Multiply** and **Divide** operations.

* Assume a complex number with real part=5 and imaginary part = 3. You have to create a **toString** method, which returns the following string for such a complex number:

(5+3i)

* Also, create an instance method ‘modulus’ for computing the modulus of a complex number. The modulus of a complex number is computed as follows: |z| = √(x2 + y2), where x and y are real and imaginary parts of the complex number.

**The ComplexTest class:**

* Create a test class ComplexTest, in which the main method creates an 2 arrays of Complex numbers (3 elements each).
* Then, your main method should calculate the sum of corresponding complex numbers in the 2 arrays (in a loop) by calling the static addComplex method, which returns the resultant complex number.
* Your program should display the modulus of each resultant complex number.