

CSC2111

Computer Science I

Lab 14

50 points

Due 03/12/16 10:00 pm

You should put comments in your take-home assignments. Solutions without comments will be deducted 5 points in grade.

a. Extend the definition of the `class complexType` so that it performs the subtraction and division operations. Overload the operators subtraction and division for this class as member functions. (10 points)

If (a, b) and (c, d) are complex numbers:

$$(a, b) - (c, d) = (a - c, b - d).$$

If (c, d) is nonzero:

$$(a, b) / (c, d) = ((ac + bd) / (c^2 + d^2), (-ad + bc) / (c^2 + d^2)).$$

b. Write the definitions of the functions to overload the operators `-` and `/` as defined in part

a. (30 points)

c. Write a test program that tests various operations on the `class complexType`. Format your answer with two decimal places. (10 points)