

## COP4020 Homework Assignment 8

[usual rules apply: name, usernames, repeat question, pdf only, submit to Blackboard under Assignments – Assignment 7]

1. Exercise 9.4 [ed 3]: Write a C# class that represents complex numbers. Provide four *properties*, for  $x$ ,  $y$ ,  $p$ , and  $\theta$ . Discuss the time and space tradeoffs between maintaining all four values in the state of the object, or keeping only two and computing the others on demand. [Note:  $x, y$  are the real and imaginary components,  $p$  and  $\theta$  are the radius and angle in trig representation.]
2. Exercise 9.6 [ed 3] = 9.5 [ed 2]
3. Exercise 9.16 [ed 3] = 9.13 [ed 2]
4. Exercise 9.17 [ed 3] = 9.14 [ed 2]
5. Exercise 9.20 [ed 3] = 9.17 [ed 2]