

## CS136: Computer Science II – Fall 2017

Homework	Points	Announced	Due
#8	3 <sup>1</sup>	Oct-30	Nov-05

Instructions

Read the following instructions carefully before working on this assignment.

1. This is an **individual** assignment. You may discuss ideas, ask questions or explain things to each other. Nevertheless, you should solve the assignments independently.
2. Submissions via email will not be accepted. The homework should be submitted via BBLearn by the due date.
3. You should submit your own work. Material brought from elsewhere (e.g. the Internet<sup>2</sup>, a classmate, submission at a previous offering...) is not acceptable.
4. Submit .Java files. No .class files. No .jar files. No archives (e.g. .zip, .rar...).
5. A program that doesn't compile will earn **zero** points

Questions**[15 points] Question #1**

The `java.awt.Rectangle` class of the standard Java library does not supply a method to compute the area or perimeter of a rectangle. Provide a subclass `BetterRectangle` of the `Rectangle` class that has `getPerimeter` and `getArea` methods. Do not add any instance variables. In the constructor, call the `setLocation` and `setSize` methods of the `Rectangle` class. Provide a program (`TestBetterRect.java`) that tests the methods that you supplied.

Item	Points
<code>getPerimeter</code>	5
<code>getArea</code>	5
<code>TestBetterRect.java</code>	5
Non-compiling programs	0

**[15 points] Question #2**

Write a Java program (`FileElementsCounter.java`) that asks the user for a file name and prints on the screen the number of characters, words, and lines in that file. You can use the attached files to test your code.

Item	Points
Finding the correct number of characters	5
Finding the correct number of words	5
Finding the correct number of lines	5

With best wishes

Dr. Mohamed Elwakil

<sup>1</sup> The homework will be graded out of 30 points, but it is worth 3 of the overall course score.

<sup>2</sup> Unless explicitly told to do so.