In-Class Activity #3: Individual Quiz

Name: _____   Section Leader: _____

Directions: <u>**Working alone**</u>, answer the following questions to the best of your *individual* ability. We encourage you to show your work, to help us understand your thought process. When you are done, you may leave; please hand this page to one of the class staff on your way out.   Week 5 (2015/09/23)

1. Binary Files.

   (a) Before we can write a class' object to a file, what property must the class possess, <u>**and**</u> how do we give the class that property?

   (b) Write the Java code necessary to create an `ObjectOutputStream` object that can write to a file named `ica03.out`. You do not need to worry about exception handling.

2. Composition / Adaptation.

   (a) **Define:** Composition.

   (b) In your `BinaryNumber` class from Program #2, you used either an array object or a `String` object to represent the binary number. Is this best described as **composition** or as **adaptation**? Explain why you believe that your answer is the best one.

3. Inheritance.

   (a) Is inheritance described as a "has a", "is a", or a "can has a" relationship? _____

   (b) When a method of a subclass overrides a method of its superclass, which <u>three parts</u> of the method headers of the two methods must match?