# **HW** 7

For all parts turn in the programs in a zipped main directory called <username>, which subdirectories called Part1, Part2, ..., Part 5.

# Part 1:

Add functions and variables to the Base and Derived classes in HW7Part1 to get the output indicated in the comments in main.

## Part 2:

Fix the compile time errors.

#### Part 3:

Say what is printed by each call in main by adding comments to the line with a call.

## Part 4:

Some calls in the main function are errors. Observe what the problem is and comment these out. Then say what is printed by each line that is not commented out and that makes a method call.

#### Part 5:

- 1. Why is there an error at the line with a comment "A" in I.java? Hint: there error messages from javac don't really give the answer.
- 2. There is an error message at the line with comment B. Where is the "i" declared that is the source of the error message? Why is there an error if it is not declared final?
- 3. Is the "i" in Question 2 a static (class) or instance variable? Why?
- 4. D.java implements the interface I, which contains a declaration of an abstract function "void foo(short)". Class D does not contain a definition of a "void foo(short)" method, yet there is not error for this. Why is this?