**Review Assignment 08**
**Submission Deadline 11:59 PM, Sunday, April 9th**
**Total 40 points**

**Instruction.**
1. **Download the assignment sheet.**
2. **Enter your answer.**
3. **Upload your answer sheet.**

**Question 1. Object classes (24 points).**

Look at the following code for an object class `NameAndValue`.

```
01: public class NameAndValue {
02:    private String theName;
03:    private double theValue;
04:    public NameAndValue( String name, double value ) {
05:      setName(name); // rewrote constructor here to answer e
06:      setValue(value_;
07:    }
08:    public String getName() {
09:      return theName;
10:    }
11:    public double getValue() {
12:      return theValue;
13:    }
14:    public setName( String name ) {
15:      theName = name;
16:    }
17:    public setValue( double value ) {
18:      theValue = value;
19:    }
20: }
```

   a. (2 points) In which line, does a constructor appear? 04
   b. (2 points) In which lines, are instance variables declared? 02, 03
   c. (2 points) In which lines, do getters appear? 08, 11
   d. (2 points) In which lines, do setters appear? 14, 17
   e. (8 points) Rewrite the constructor so it uses only the setters.

f.  (8 points) Suppose we want to add the following method to the source code. The code directly accesses the variables. Rewrite it so that it uses the getters.

```
public String encode() {

    return String.format( "%s:%.2f", getName(), getValue() );

}
```

**Question 2. Count occurrences of an element in an array (16 points).**

Suppose you want to write a method that returns the number of occurrences of a String value in an array of String data. Fill in the body of the code.

```
public static int howMany( String[] data, String query ) {

        int count = 0;
        for (int i=0; i<data.length; i++){

            if (data[i].equals(query)){

                count++;

            }

        }

        return count;
}
```