Review Assignment 09
Submission Deadline 11:59 PM, Sunday, April 16th
Total 35 points

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

Suppose we are writing an application for maintaining the name and scores for some number of students.
Suppose that we are given the following interface `NameAndScoresInt` for maintaining the information for a single student.

```
01: public interface NameAndScoresInt {
02:    // returns the name of the student
03:    public String getName();
04:    // returns the number of scores for the student
05:    public int getNumberOfScores();
06:    // returns the score at position k
07:    public double getScore( int k );
08:    // changes the score at position k
09:    public void setScore( int k, double newScore );
10: }
```

Suppose we will implement the interface into a class `NameAndScores`, which has two private instance variables, one for the name and the other for the scores. The length of the array should be equal to the number of scores for the student.

Write the code for the class. The code should have one constructor that receives a String with which to initialize the name and a double array with which to initialize the score array.

```
public class NameAndScores implements NameAndScoresInt { // 2 points

    private String name;
    private double[] scores;

    public NameAndScores(String name, double scores) {
        // initialization; // 4 points
        name = name;
        scores = scores;
    } // end of NameAndScores constructor

    // implement here the four method;
    // for each method to write, 1 point for the declaration and 3
points for the body
```

```
        // returns the name of the student
        public String getName(){

            return name;

        } // end of getName method

        // returns the number of scores for the student
        public int getNumberOfScores(){

            return scores.length;

        } // end of getNumberOfScores method

        // returns the score at position k
        public double getScore(int k){

            return scores[k];

        } // end of getScore method

        // changes the score at position k
        public void setScore(int k, double newScore){

            scores[k] = newScore;

        } // end of setScore method


} // end of NameAndScores class
```

Write a code for a static method `printStudent( NameAndScoresInt o )` that outputs on the screen the data for an object of type NameAndScoresInt (yes, an interface can be a data type), where the output is in the following format:

The_name
The_number_of_scores
All_the_scores, one score per line

Use the following template to write your code

```
public static void printStudent(NameAndScoresInt o){

        System.out.println(name);
        System.out.println(scores.length);
        for (int i=0; i<scores.length; i++){
```

```java
        System.out.println(scores[i]);

    } // end of for loop

} // end of printStudent function
```