1. Multiple choice. Select the best answer for the following questions.

(a) (1 point) Suppose a method in the Account class is declared:
   public double compoundInterest(double rate)

If we have declared an Account object acct in another class, which of the following would be a valid call to the above method?

A. double result = Account.compoundInterest(13.0);
B. acct.compoundInterest(13.0, 15.0);
C. double result = acct.compoundInterest(13.0);
D. double result = compoundInterest(13.0);
E. double result = compoundInterest(acct, 13.0);

(b) (1 point) What is the effect of giving a class member private access?

A. When an instance variable of a class is declared private it can be used in only one place in a program.
B. When an instance variable of a class is declared private it can be used only in methods that are members of that class.
C. When an instance variable of a class is declared private it can only be used by other private members of other classes.
D. When an instance variable of a class is declared private there will be only one instance of it, no matter how many objects are instantiated.
E. When an instance variable of a class is declared private it cannot be modified from its initial value.

(c) (1 point) What will happen if the main() method of a "testing" class tries to access a private instance variable of an object it has instantiated?

A. The compiler will find the error. (ie syntax error)
B. The compiler will automatically change the private variable to a public variable.
C. The program will compile successfully, but the program will not run correctly (ie runtime error)
D. The program will compile and run successfully.
2. Consider the following class:

```java
public class NumberHolder {
    public int anInt;
    public float aFloat;
}
```

(a) (1 point) Write a line of code which creates an instance of the class (in other words, creates one object).

(b) (2 points) Write some code which initializes the instance variables of your object in part a.

(c) (3 points) Write a `toString` method for this class.

(d) (3 points) Write a constructor which allows you to initialize the instance variables via parameters.

3. (3 points) In your own words, explain what the following statement does. (Hint: it does many things, so be precise in your answer).

```java
Student s1 = new Student();
```