Name: _____ Andrew Id: _____

**15-121 Fall 2018 Quiz 2**

Up to 10 minutes. No calculators, no notes, no books, no computers. Show your work!

1. **Short Answer**

   (a) (3 points) In just a few words, what's the difference between a class and an object?

   (b) (3 points) What is the smallest, signed integer that can be represented in 2-bytes? You can give your answer as a power of 2, there no need to reduce it.

2. (4 points) **Code Tracing:** Indicate what the following program prints. Place your answer (and nothing else) in the box under the code. Note that program has *two* print statements.

```
public class IncrementorExercise {
    public static void main(String[] args) {
        int e = 10;
        System.out.println(++e + e-- - e++ - --e);
        System.out.println(e);
    }
}
```

3. (10 points) **Free Response:** Write the code for the method `countValue` which, given an array of integers `arr` and an integer `val`, returns the number of times `val` occurs in `arr`.

```
public int countValue(int[] arr, int val) {
```