CSE110 Review Questions (Solutions)

Prepared by Ryan Dougherty

Static Variables and Methods

Question 1   What is a static variable? What is a static method?
Answer: A static variable is shared among all instances of a class. A static method is invoked using the class name.

Question 2   Using the code below, how many copies of the variable number exist after instantiating 374 different AmazingClass objects?

```java
public class AmazingClass {
        private static int number;

        public AmazingClass(int a) {
                number = a;
        }

        public int twice() {
                number *= 2;
                return number;
        }
}
```

Answer: 1

Question 3   Using the code from above, what is the value of number after each of the following statements? (For each part, assume the preceding parts have already been executed).

```java
AmazingClass ac1 = new AmazingClass(3);
AmazingClass ac2 = new AmazingClass(7);
ac1.twice();
ac2.twice();
```

Answers:
3
7
14
28