1. (2 pts) The primary job of a constructor is to initialize the ______________ variables in a class definition. True/False ______________ If a method in a class definition has the same name as the class, then it is a constructor.

2. (2 pts) Java supports ______________ , which is the binding together of data and the code which operates on the data, through the class definition, and supports ______________ through access control keywords like public.

3. (2 pts) Explain what it means for an object to be immutable.

4. (2 pts) What is printed by the following code? Explain the output.

```java
public class Question4 {
    public static void main(String[] args) {
        String temp1 = new String("abc");
        String temp2 = new String("abc");
        String temp3 = "abc";
        String temp4 = "abc";
        System.out.println(temp1 == temp2);
        System.out.println(temp1 == temp3);
        System.out.println(temp1 == temp4);
        System.out.println(temp2 == temp3);
        System.out.println(temp2 == temp4);
        System.out.println(temp3 == temp4);
    }
}
```

5. (2 pts) What does the following print? Explain the output. You may use a calculator or abacus if you want.

```java
public class Question5 {
    public static void main(String[] args) {
        String temp = "This is a test";
        temp.concat("World" + temp.length() + temp.charAt(4) + temp.charAt(5));
        temp.concat("T" + temp.substring(temp.length()/2));
        temp.concat("WOW this is alot" + temp.charAt(5));
        temp.concat("K" + temp.charAt(temp.length()-4/5-3) + temp.indexOf('s'));
        temp.concat("R" + temp.length()*(int)Math.pow(4,15)*(int)Math.sin(36*temp.length()));
        temp.toUpperCase().toLowerCase();
        System.out.println(temp.length());
        System.out.println(temp);
    }
}
```