1. (2 pts) Suppose we have the following code. Is there a compile-time error? Is there a run-time error? Explain.

```java
String[] strings = new String[5];
for (int counter = 0; counter < strings.length; counter++)
    System.out.println(strings[counter].length() + 1);
```

2. (2 pts) The keyword ____________ allows an instance variable to be accessed within the same class, within the same package, and in any subclass, whereas the keyword ____________ allows an instance variable to be accessed anywhere.

3. (2 pts) Is there any syntax error reported when class A is compiled? Explain.

```java
public class B {
    protected int num;
    public B(int num) {
        this.num = num;
    }
}
```

```java
public class A extends B {
    private int num1;
    public A(int num1) {
        this.num1 = num1 + num;
    }
}
```

4. (2 pts) Suppose we have the following method in a class definition.

```java
public String toString(String s) {
    return(s);
}
```

Is this an example of method overloading or method overriding? Explain.

5. (2 pts) Suppose we have the following two class definitions.

```java
public abstract class Question5 {
    private int num;
}
```

```java
public final class Question51 {
    private int num;
}
```

What can’t we do with the class definition Question5, and what can’t we do with the class definition Question51?