1. (2 pts) Will there be a syntax error reported if we try to compile Subclass? Would changing the access control keyword on number to protected fix the problem? Explain.

```java
public class Superclass {
    private int number;

    public Superclass(int number) {
        this.number = number;
    }
}

public class Subclass extends Superclass {
    public Subclass() {
        int num = 1;
    }
}
```

2. (2 pts) True/False ______ If public class A extends B, then objects created from class B can be treated as if they are objects created from class A. If false, explain.

3. (2 pts) If we include a method in a class definition whose header is `public String toString(String string)`, is this an example of method overloading, method overriding, or neither? If we include a method whose header is `public void toString()`, can we create instances of the class? Explain carefully.

4. (2 pts) True/False ______ Any class definition can be used after the word extends in a class header. If false, explain.

5. (2 pts) Suppose we have a class definition with the header `public class A extends B,C`. When we create an instance of A, does it have the “is a” relationship with both B and C? Explain. (Read this statement carefully.)