CSE 341 — Pizza Discussion Questions

1. Consider the following Java code fragments. (The first 3 lines are the same for all of them; it's just the last line
that is different.) In each case, does the code compile correctly? If so, does it execute without error, or is there
an exception?

Point[] a = new Point[10];
Object[] b;
b = a;
b[0] = new Point(10,20);

Point[] a = new Point[10];
Object[] b;
b = a;
b[0] = "hi there";

Point[] a = new Point[10];
Object[] b;
b = a;
a[0] = "hi there";

2. Following the example of the class TwoTypes in the lecture notes, define a class Triple, parameterized by
three types A, B, and C. Give example code that uses Triple to hold an int and two strings.

3. Joe Mocha is defining an interface Appendable in Pizza that includes an append method. He then defines
two classes, MyString and MyList, which both implement Appendable. He wants Pizza's type system to
allow a MyString to be appended to a MyString, and a MyList to be appended to a MyList, but not a
MyString to a MyList, or a MyList to a MyString.

Here is his definition of Appendable:

```
interface Appendable {
    Appendable append(Appendable a);
}
```

What is wrong with this definition? What is a correct one?

Also write a definition for a class MyString that uses the revised definition of Appendable. (Just put ... in
the body of the method — we only care about the header.)