

Quiz 2 Practice

1) Writing/understanding an equals method.

- a) Complete the equals method in the following class. Two Palette objects are equal if they have the same name and their arrays, colors, have the same elements in the same order.

```
public class Palette {
    private Color[] colors;
    private String name;

    public Palette(Color[] c, String n) {
        colors = c;
        name = n;
    }

    public boolean equals(Object obj) {
        if (obj instanceof Palette) {
            // Write your code here

        } else {
        }
    }
}
```

- b) If the Palette class were to be inherited, how would you modify the equals method? Explain why?

- 1) [2 points] Suppose the Palette class contains the following constructor and copy method

```
public class Palette {  
    private Color[] colors;  
    private String name;  
  
    public Palette (Color[] c, String n) {  
        colors = c;  
        name = n;  
    }  
    public Palette copy() {  
        return new Palette (colors, name);  
    }  
}
```

- a) Draw the object diagram that corresponds to the execution of the following code snippet:

```
Color[] c = {Color.BLUE, Color.GREEN};  
Palette p = new Palette(c, "Simple palette");  
Palette copy = p.copy();
```

- b) What type of copy is made by the copy method in Palette? Say whether it is a deep or a shallow copy. If a shallow copy, state whether the original may be modified by changing the copy. **Explain clearly.**