

Ch 5 Review - book problems

Wednesday, January 16, 2013

9:35 AM

*Note: when these questions mention 'aliases', that means two object variables that reference the same object

multiple choice

5.1 The this reference refers to

- a. the currently executing object
- b. the first parameter in a method
- c. the current class
- d. a reference that doesn't point to any object
- e. the object that called the current method

5.2 Which of the following should be used for an object reference variable that does not refer to any object?

- a. `this`
- b. `static`
- c. `null`
- d. `0`
- e. `-1`

5.3 Which of the following expressions can be used to test whether two objects, `o1` and `o2`, are aliases of each other?

- a. `o1 == o2`
- b. `o1.equals(o2)`
- c. `o2.equals(o1)`
- d. `o1.compareTo(o2) == 0`
- e. `o1.compareTo(o2) != 0`

5.4 Which of the following reserved words is used in the class header of a class that implements an interface?

- a. `interface`
- b. `implements`
- c. `abstract`
- d. `void`
- e. `final`

5.5 Which of the following is often static?

- a. local variables
- b. all instance variables
- c. parameters to methods
- d. object reference variables
- e. constants

public static final PI = 3.14159;

5.7 A class that implements an interface must implement which methods of the interface?

- a. only those that return a value
- b. only those that are not abstract
- c. only those that are marked with the word "required"
- d. the class is not required to implement any methods
- e. all methods must be implemented

5.8 Given the declarations

```
String s1 = "James Gosling";
String s2 = "James Gosling";
```

which of the following statements is true?

- ☒ a. s1 and s2 are aliases of each other
- ☒ b. s1 == s2 is true
- ☒ c. s1 < s2 because capital letters come before lowercase in the Unicode character set
- ☒ d. s1.equals(s2) is true
- ☐ e. s1 and s2 are the same because they have the same number of characters

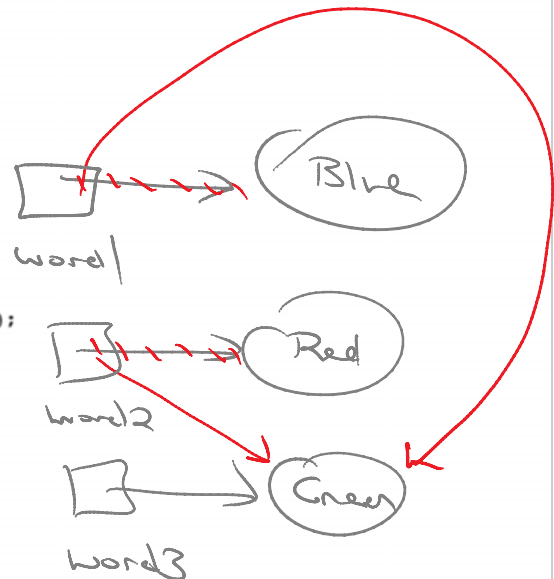
5.9 A method that does not have an implementation

- a. is not allowed by the Java compiler
- b. takes no parameters and returns the integer 0
- c. is a static method
- d. is a null method
- e. is an abstract method

5.10 What is output by the following code?

```
String word1 = "blue";
String word2 = "red";
String word3 = "green";
word2 = word3;
word1 = word3;
word3 = word1;
System.out.println(word1 + " " + word2 + " " + word3);
```

- a. blue red green
b. green green blue
c. blue blue blue
d. green green green
e. red red blue



true/false

- T 5.1 A reference variable that does not currently point to an object is called a null reference.
- F 5.2 The `this` reference lets an object refer to itself.
- F 5.3 Two objects are aliases of each other if they are equal using the `equals` method. (no, it's `==`)
- F 5.4 The `==` operator and the `equals` method do the same thing for all objects. references vs. contents
- T 5.5 When an object is passed to a method, what is actually passed is a reference to that object.
- F 5.6 Static variables and methods are accessed through a class rather than through an instance of a class. (it could be either, not rather)
- F 5.7 A static method may use instance variables in the same class. → it can only use variables that are static.
- T 5.8 Constructors may not be static. → They need to set instance variables.
- T 5.9 Constants may be declared in interfaces.
- T 5.10 A class may implement more than one interface. → public class `SmileyFace` implements `Comparable`, `Runnable`