

Quiz name: Java 111 Final Exam Review (from version 1)

Date: 05/04/2015

Question with Most Correct Answers: #30

Total Questions: 30

Question with Fewest Correct Answers: #10

1. Instance variables are variables declared inside a method or method parameter.
- 1/17 ☐ A True
- 0/17 ☐ B True only in an interface
- 0/17 ☐ C True only in an abstract class
- 12/17 ☒ D False

2. In the code example below, which is the object reference variable?
- 0/17 ☐ A Duck()
- 0/17 ☐ B 24
- 13/17 ☒ C d
- 0/17 ☐ D new Duck()
- 2/17 ☐ E Duck

```
public class StackRef {  
    public void run() {  
        build();  
    }  
    public void build() {  
        Duck d = new Duck(24);  
    }  
}
```

3. In the code example below, where will the Duck object live?
- 12/17 ☒ A Heap
- 4/17 ☐ B Stack
- 0/17 ☐ C Frame

```
public class StackRef {  
    public void run() {  
        build();  
    }  
    public void build() {  
        Duck d = new Duck(24);  
    }  
}
```

4. The currently executing method is the one on the bottom of the stack.
- 0/17 ☐ A True
- 16/17 ☒ B False

5. When is an object eligible for garbage collection?
- 0/17 ☐ A 1. When the reference is assigned to another object
- 0/17 ☐ B 2. When the reference is set to null
- 0/17 ☐ C 3. As soon as it is instantiated
- 1/17 ☐ D 4. When the reference goes out of scope (it is no longer pointing to the object)
- 15/17 ☒ E 1, 2 and 4 are correct

6. In the code example below, how long will "d" live on the stack?

15/17



Until run() pops off the stack

0/17



Until build() is added to the top of the stack

1/17



Until build() pops off the stack

0/17



Until d is garbage collected

```
18 public class StackRef {
19
20     public void run() {
21         Duck d = new Duck();
22         build();
23     }
24
25     public void build() {
26
27     }
28 }
29
```

7. Which of the following is NOT true?

2/17



A constructor is the code that runs when somebody says "new" on a class type, like this: Duck d = new Duck();

1/17



A constructor must have the same name as the class and no return type

12/17



If you add a 2-argument constructor to a class, the compiler will create a default constructor

1/17



The default constructor created by the compiler has no arguments.

8. Constructors cannot be overloaded.

0/17



True

16/17



False

9. A constructor on an object's parent must run when you make a new object.

12/17



True

4/17



False

10. Type the code that should appear on line 7 to call the Duck's single arg constructor with a parameter of 14.

Anon ca222

this.Duck(14);

Anon d6559

this();

Anon 2b337

this(14)

Anon 8c6bd

this(14);

Anon 9a75b

this.size

Anon d6236

this(14);

Anon 579f2

this.size = 14;

```
1 public class Duck extends Animal {
2
3     int size;
4
5     public Duck() {
6
7     }
8
9
10    public Duck(int newSize) {
11        size = newSize;
12    }
13 }
```

Anon 05e98

Duck(14)

Anon 9c975

this(14);

Anon 1bffc

size = 14

Anon 221e3

this.Duck(14)

Anon 580e4

Duck(14);

Anon 1ab3d

Duck d = new Duck(17);

Anon 63d98

this(14);

Anon 432a7

Duck(14)

11. A constructor can have a call to super() OR this(), but NEVER both.

- 7/17 ☒ A True
8/17 ☐ B False

12. A class must be put into a directory structure that matches the package hierarchy.

- 15/17 ☒ A True
0/17 ☐ B False

13. Which of the following are valid javadoc comments?

- 0/17 ☐ A // @author sstarcoder
0/17 ☐ B /** @author sstarcoder */
13/17 ☒ C /** @author sstarcoder */
0/17 ☐ D !-- @author sstarcoder--/

14. The keyword "static" lets a method run without any instance of the class.

- 14/17 ☒ A True
1/17 ☐ B False

15. A static method cannot be dependent on any instance variable.

- 14/17 ☒ A True

1/17

☒ B False

16. Static final variables are also known as:

- 0/17 ☐ A Constructor args
0/17 ☐ B Primitives
0/17 ☐ C Booleans
14/17 ☒ D Constants
0/17 ☐ E None of the above
-

17. Which of the following is NOT true?

- 0/17 ☐ A The naming convention for constants is to make the name all uppercase.
1/17 ☐ B A final class cannot be extended (subclassed).
1/17 ☐ C A static method can access a static variable.
10/17 ☒ D A final method can be overridden.
2/17 ☐ E None of the above
-

18. An abstract class can only have abstract methods.

- 3/17 ☐ A True
12/17 ☒ B False
-

19. Marking a class with the "abstract" keyword prevents a developer from instantiating that class.

- 13/17 ☒ A True
1/17 ☐ B False
-

20. Which of the following is NOT true?

- 12/17 ☒ A An interface must be created using the keyword "abstract".
0/17 ☐ B An interface defines only abstract methods.
1/17 ☐ C A class can implement multiple interfaces.
1/17 ☐ D All interface methods are implicitly public.
1/17 ☐ E None of the above.
-

21. If you override a superclass method in a subclass, you cannot invoke (call) the superclass method.

- 1/17 ☐ A True
14/17 ☒ B False
-

22. An abstract method has no body and ends with a semi-colon.

- 14/17 ☒ A True
1/17 ☐ B False
-

23. Given the following: `SuperStarCoder rockstar = new JavaRockStar();` what is the object reference type?

- 2/17 ☐ A JavaRockStar
1/17 ☐ B rockstar
12/17 ☒ C SuperStarCoder
0/17 ☐ D new
0/17 ☐ E None of the above
-

24. Given the following: `SuperStarCoder rockstar = new JavaRockStar();` what is the actual object type?

- 12/17 ☒ A JavaRockStar
0/17 ☐ B rockstar
1/17 ☐ C SuperStarCoder
0/17 ☐ D new
0/17 ☐ E None of the above
-

25. What is the proper way to create an interface called Payable?

- 0/17 ☐ A `public abstract interface class Payable {}`
0/17 ☐ B `public abstract Payable {}`
0/17 ☐ C `public abstract interface class Payable extends Payable {}`
15/17 ☒ D `public interface Payable {}`
0/17 ☐ E None of the above
-

26. Which of the following is NOT true?

- 0/17 ☐ A You can write a new instance method in the subclass that has the same signature as the one in the superclass, thus overriding it.
1/17 ☐ B You can declare new methods in the subclass that are not in the superclass.
1/17 ☐ C You can declare new fields in the subclass that are not in the superclass.
5/17 ☐ D A subclass cannot extend multiple superclasses.
7/17 ☒ E A subclass inherits the private instance variables and private methods of its superclass.
-

27. A superclass called Fruit contains a method called `display()` that outputs a message to the terminal. Which code segment IN THE SUBCLASS Apple will successfully call that method?

- 13/17 ☒ A `super.display();`
1/17 ☐ B `Fruit.display();`

- 0/17 ☐ C display(Fruit);
0/17 ☐ D Apple.display;
0/17 ☐ E this.display();
-

28. Which of the following is NOT true:

- 1/17 ☐ A The arguments and return types of an overriding method must look to the outside world exactly like the overridden method in the superclass.
1/17 ☐ B Overloaded methods have the same name, but different argument lists.
2/17 ☐ C Overloaded methods can have different return types as long as the arguments lists are different.
7/17 ☒ D When overriding a public method, you can declare the method as private.
5/17 ☐ E All of the above are true.
-

29. An import statement saves you from having to type out the full name of classes.

- 13/17 ☒ A True
2/17 ☐ B False
-

30. What is the proper way to add a Kumquat object to an ArrayList of Kumquats called myKumquatList? Assume I have created a Kumquat object like this: Kumquat myKumquat = new Kumquat();

- 0/17 ☐ A myKumquatList.kumquat = myKumquat;
0/17 ☐ B myKumquatList[0] = myKumquat;
16/17 ☒ C myKumquatList.add(myKumquat);
0/17 ☐ D myKumquatList[1].add(myKumquat)