

Java 111 Chapter 7 (from version 1)

Total Questions: 12

Most Correct Answers: #3

Least Correct Answers: #2

1. A subclass inherits all the fields and methods from its superclass.

5/6 ☒ A True

0/6 ☐ B False

2. Which of the following are true?

3/6 ☒ 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.

5/6 ☒ B You can declare new methods in the subclass that are not in the superclass.

4/6 ☒ C You can declare new fields in the subclass that are not in the superclass.

0/6 ☐ D None of the above.

3. The 'IS-A' test can be used to determine whether an item:

5/6 ☒ A is a subclass

0/6 ☐ B should be a method

0/6 ☐ C is an attribute

0/6 ☐ D should be overridden

4. Considering the code, which of the following is true? `public class Cat extends Animal { ... }`

0/6 ☐ A Cat 'has-a' Animal

5/6 ☒ B Cat 'is-a' Animal

0/6 ☐ C Animal 'is-a' Cat

0/6 ☐ D Cat 'has-a' Cat

5. A kumquat is:

1/6 ☐ A An orange

0/6 ☐ B A Grape

0/6 ☐ C Both

4/6 ☒ D Citrus

6. A subclass can use the "extends" keyword to extend multiple superclasses.

0/6 ☐ A True

5/6 ☒ B False

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

4/6 ☒ A super.display();

0/6 ☐ B Fruit.display();

0/6 ☐ C display(Fruit);

1/6 ☐ D Apple.display();

8. Which of the following are true with regard to inheritance?

1/6 ☐ A A subclass must have methods or instance variables in its source code

3/6 ☒ B A subclass is can be a superclass to another class

5/6 ☒ C A subclass is able to override methods of a superclass

5/6 ☒ D A subclass inherits instance variables and methods from a superclass

9. A superclass with a method that has the same header as a subclass will override the subclass' method.

0/6 ☐ A True

5/6 ☒ B False

10. You have two classes show below. If you run a test drive and create a Surgeon object and call the treatPatient method, what will the output be?

0/6 ☐ A Pop some pills

0/6 ☐ B Pop some pills I'm going to put you under and perform surgery

4/6 ☒ C I'm going to put you under and perform surgery

1/6 ☐ D I'm going to put you under and perform surgery Snip, Snip

```
public class Doctor {
    boolean worksAtHospital;
    void treatPatient() {
        System.out.println("Pop some pills");
    }
}

public class Surgeon extends Doctor {
    void treatPatient() {
        System.out.println("I'm going to put you under and perform surgery");
    }

    void makeIncision() {
        System.out.println("Snip, Snip");
    }
}
```

11. Method "overloading" is when:

- 1/6 ☐ A Two or more methods have the same name, and the same number and type of parameters, but different return types
- 3/6 ☒ B Two or more methods have the same name but different numbers or types of parameters
- 0/6 ☐ C A method can take any number of arguments of the same type
- 1/6 ☐ D A method calls the method of the same name of its superclass

12. Assuming the upper code is part of a Thing class and the lower code has an instance of the class called thing, what will the result be?

- 0/6 ☐ A Twice thing's value is: 40
- 2/6 ☐ B Twice thing's value is: 2020
- 0/6 ☐ C The code will not run
- 3/6 ☒ D The code will not compile

```
...
public String getValue() {
    return "20";
}
public int getValue() {
    return 20;
}
...
System.out.println("Twice thing's value is: "
    (thing.getValue() + thing.getValue()));
...
```