

Java 111 Chapter 7 (from version 1)

Total Questions: 12

Most Correct Answers: #6

Least Correct Answers: #11

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

9/11 ☒ A True

2/11 ☐ B False

2. Which of the following are true?

11/11 ☒ 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.

9/11 ☒ B You can declare new methods in the subclass that are not in the superclass.

8/11 ☒ C You can declare new fields in the subclass that are not in the superclass.

0/11 ☐ D None of the above.

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

7/11 ☒ A is a subclass

0/11 ☐ B should be a method

3/11 ☐ C is an attribute

1/11 ☐ D should be overridden

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

0/11 ☐ A Cat 'has-a' Animal

10/11 ☒ B Cat 'is-a' Animal

1/11 ☐ C Animal 'is-a' Cat

0/11 ☐ D Cat 'has-a' Cat

5. A kumquat is:

1/11 ☐ A An orange

1/11 ☐ B A Grape

0/11 ☐ C Both

9/11 ☒ D Citrus

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

0/11 ☐ A True

11/11 ☒ 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?

5/11 ☒ A super.display();

4/11 ☐ B Fruit.display();

0/11 ☐ C display(Fruit);

2/11 ☐ D Apple.display();

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

2/11 ☐ A A subclass must have methods or instance variables in its source code

10/11 ☒ B A subclass is can be a superclass to another class

11/11 ☒ C A subclass is able to override methods of a superclass

10/11 ☒ 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.

1/11 ☐ A True

10/11 ☒ 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?

0/11 ☐ A Pop some pills

2/11 ☐ B Pop some pills I'm going to put you under and perform surgery

8/11 ☒ C I'm going to put you under and perform surgery

1/11 ☐ 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:

3/11 ☐ A Two or more methods have the same name, and the same number and type of parameters, but different return types

4/11 ☒ B Two or more methods have the same name but different numbers or types of parameters

0/11 ☐ C A method can take any number of arguments of the same type

4/11 ☐ 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?

- 1/11 ☐ A Twice thing's value is: 40
- 4/11 ☐ B Twice thing's value is: 2020
- 0/11 ☐ C The code will not run
- 6/11 ☒ 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()) );
...
```