

Java 11 Chapter 8 (from version 17)

Questions

1. An abstract class can only have abstract methods.

2/4 ☐ A True

2/4 ☒ B False

2. When you don't want a class to be instantiated (in other words, you don't want anyone to make a new object of that class type) mark the class with the "abstract" keyword.

3/4 ☒ A True

1/4 ☐ B False

3. Which of the following are true?

0/4 ☐ A An interface must be created using the keyword "abstract".

3/4 ☒ B An interface defines only abstract methods.

3/4 ☒ C A class can implement multiple interfaces.

4/4 ☒ D All interface methods are implicitly public.

4. All objects come out of an `ArrayList<Object>` as type `Object`, unless you use a cast.

4/4 ☒ A True

0/4 ☐ B False

5. Multiple inheritance is allowed in Java, meaning you may extend multiple classes.

1/4 ☐ A True

3/4 ☒ B False

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

1/4 ☐ A True

3/4 ☒ B False

7. You can extend only one class (i.e. you can have only one immediate superclass).

4/4 ☒ A True

0/4 ☐ B False

8. Write an abstract method called eatCake that accepts one parameter for the number of slices to eat and returns a String.

✓ **Anon anonb4f621c61f554407 / Anon anonb19e03215b64458b**

2/4 | `public abstract String eatCake(int numberOfSlices);`

✗ **Anon anona8e331bcfc004d43**

1/4 | `public abstract String eatCake(int slices){};`

✗ **Anon anon8b5475f68d344885**

1/4 | `public abstract void eatCake(String numSlices);`

9. Given the following: `JavaRockStar rockstar = new JavaRockStar();` what is the object reference variable?

1/4 ☐ A JavaRockStar

0/4 ☐ B new

3/4 ☒ C rockstar

0/4 ☐ D none of the above

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

4/4 ☒ A JavaRockStar

0/4 ☐ B new

0/4 ☐ C rockstar

0/4 ☐ D none of the above

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

2/4 ☐ A JavaRockStar

0/4 ☐ B rockstar

2/4 ☒ C SuperStarCoder

0/4 ☐ D new

0/4 ☐ E none of the above

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

- 4/4 ☒ A JavaRockStar
- 0/4 ☐ B rockstar
- 0/4 ☐ C SuperStarCoder
- 0/4 ☐ D new
- 0/4 ☐ E none of the above

13. Given the following, what output do you expect?

- 2/4 ☐ A Line 10 and 14 will each run twice.
- 0/4 ☐ B Line 10 will run twice, line 14 will run once.
- 2/4 ☒ C This will not compile due to line 29.
- 0/4 ☐ D This will not compile due to line 27.
- 0/4 ☐ E None of the above

```
1 public abstract class Programmer {
2     public abstract void writeProgram();
3 }
4
5 public class SuperStarCoder extends Programmer {
6     public void writeProgram() {
7         System.out.println("I'm writing programs using all the languages!");
8     }
9 }
10
11 public void writeProgram() {
12     System.out.println("I'm writing programs using all the languages!");
13 }
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29 public class ProgramTestDriver {
30     public static void main(String[] args) {
31         SuperStarCoder superStarCoder = new SuperStarCoder();
32         superStarCoder.writeProgram();
33         superStarCoder.writeProgram();
34         ProgramTestDriver testDriver = new ProgramTestDriver();
35         testDriver.writeProgram();
36     }
37 }
```

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

- 0/4 ☐ A public abstract interface class Payable {}
- 0/4 ☐ B public abstract Payable {}
- 0/4 ☐ C public abstract interface class Payable extends Payable {}
- 4/4 ☒ D public interface Payable {}
- 0/4 ☐ E interface PayMe() extends Money implements Payable()

15. A class must extend a superclass before it can implement an interface.

- 0/4 ☐ A True
- 4/4 ☒ B False

16. If a class does not pass the IS-A test, it probably should not extend anything (other than Object).

- 4/4 ☒ A True
- 0/4 ☐ B False

17. An interface is a 100% abstract class, meaning it defines only abstract methods.

- 4/4 ☒ A True
- 0/4 ☐ B False