

2025 Fall

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[M1] Individual Readiness Assurance Test (iRAT) Results for Christine En-Tse Cheng

Score for this attempt: 3 out of 4
Submitted Sep 18 at 6:40p.m.
This attempt took 10 minutes.

Quiz Submissions

Attempt 1: 3

Christine En-Tse Cheng has 1 attempt left

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Correct answer

Question 1

1 / 1 pts

Consider a program that contains the following three classes.

```
class Pizza {
    private int radius = 10;

    public int getRadius() {
        return radius;
    }

    public String toString() {
        return "Pizza";
    }
}

class LargePizza extends Pizza {
    private int radius = 14;

    public int getRadius() {
        return radius;
    }

    public String toString() {
        return "Large Pizza";
    }
}

public class PizzaApp {
    public static void main(String[] args) {
        Pizza p1 = new LargePizza();
        System.out.println(p1);
        System.out.println(p1.getRadius());
    }
}
```

The result of running this program will be:

☐ Pizza
10

☐ Large Pizza
10

☒ Large Pizza
14

☐ Pizza
14

☐ Something else

Correct answer

Question 2

1 / 1 pts

Consider the following code:

```
public class Frog {
    public void hop(int numTimes) {
        for (int i = 0; i < numTimes; i++) {
            System.out.println("Hop");
        }
    }

    public void hop(String sound, int numTimes) {
        for (int i = 0; i < numTimes; i++) {
            System.out.println(sound);
        }
    }

    public static void main(String[] args) {
        Frog f1 = new Frog();
        f1.hop("Rabbit", 3);
    }
}
```

What will result from running the program?

☐ Hop

☐ Ribbit

☐ Hop
Hop
Hop

☒ Ribbit
Ribbit
Ribbit

Wrong answer

Question 3

0 / 1 pts

Consider the following code:

```
public interface Formatable {  
    public String format();  
}  
  
public interface Transferable {  
    public String transfer();  
}  
  
public class Computer { /* contents not shown */ }  
  
public class Laptop extends Computer implements Formatable, Transferable {  
    /* contents not shown */  
}
```

Which of the following statements are true about the `Laptop` class?

- (i) `Laptop` inherits methods and variables from the `Computer` class.
- (ii) `Laptop` implements methods in the `Computer` interface.
- (iii) `Formatable` and `Transferable` are classes that do not inherit from one another.
- (iv) It is possible for another class in this program to "format" and "transfer" an object that was created using the `Laptop` constructor.

☒ (i) and (iv)

☐ (ii) and (iii)

☒ (i) only

☐ None of the above

Correct answer

Question 4

1 / 1 pts

Suppose we have the following structure:

- `Vegetable` is an abstract class
- `Carrot` extends `Vegetable`
- `Pumpkin` extends `Vegetable` and has an extra method called `squash`
- Neither `Carrot` nor `Pumpkin` are abstract classes

Suppose we have the following variables defined:

```
Carrot c1 = new Carrot(...);  
Pumpkin p1 = new Pumpkin(...);  
Vegetable v1 = new Pumpkin(...);
```

Select the code fragment that **may result in a runtime error**, such as a `ClassCastException`. Consider each code fragment independently.

☐ `Vegetable v = c1;`

☒ `Carrot c = (Carrot) v1;`

☐ `Object o = v1;`

☐ `if (v1 instanceof Pumpkin)
 ((Pumpkin) v1).squash();`