

**Note:** You may use your notes or my notes from my website. No other resources may be used during this quiz.

**Question 1.** (2 points)

a) Consider the Record and Main classes below carefully. What would be printed out after running Main.java?

```
// Record.java
public class Record {
    private String artist;
    private String name;

    public Record(String artist, String name) {
        artist = artist;
        name = name;
    }

    public String getArtist() {
        return this.artist;
    }

    public String getName() {
        return this.name;
    }
}

// Main.java
public class Main {
    public static void main(String[] args) {
        Record r1 = new Record("Marvin Gaye", "What's Going On");

        System.out.println(r1.getName() + " by " + r1.getArtist());
    }
}
```

- “What’s Going On by Marvin Gaye”
- “What’s Going On by null”
- “null by null”
- “null by Marvin Gaye”

b) Explain your reasoning for your answer **in one sentence**.

*The Record constructor doesn’t use this, resulting in references to the parameters, not the instance variables, and*

**Question 2.** (2 points)

Consider the code below. After running the `main` method in `Main.java`, what is the value of `NUM_PENGUINS`?

```
// Penguin.java
public class Penguin {
    private static int NUM_PENGUINS;
    private String name;

    public Penguin(String name) {
        this.name = name;
        NUM_PENGUINS++;
    }

    public Penguin() {
        this.name = "Pingu's friend";
        NUM_PENGUINS++;
    }
}

// Main.java
public class Main {
    public static void main(String[] args) {
        Penguin p1 = new Penguin("Pingu");
        Penguin p2 = new Penguin();
    }
}
```

1. 0
2. null
3. 2
4. 1

**Question 3.** (1 point) What's value of `phrase` after the code below executes?

In the code below, underscores (\_) are being used to depict space characters.

```
String phrase = "why are you yelling___";
phrase.trim();
phrase.toUpperCase();
```

- “WHY ARE YOU YELLING”
- “WHY ARE YOU YELLING\_\_\_”
- “why are you yelling”
- “why are you yelling\_\_\_” because strings are immutable