CS 149

Professor: Alvin Chao

```
public class Model1 {

    public static void main(String[] args) {
        System.out.println("First line.");
        threeLine();
        System.out.println("Second line.");
    }

    public static void newLine() {
        System.out.println();
    }

    public static void threeLine() {
        newLine();
        newLine();
        newLine();
    }

}
```

CALL println
RETURN to main
CALL threeLine
  CALL newLine
    CALL println
    RETURN to newLine
  RETURN to threeLine
  CALL newLine
    CALL println
    RETURN to newLine
  RETURN to threeLine
  CALL newLine
    CALL println
    RETURN to newLine
  RETURN to threeLine
RETURN to main
CALL println
RETURN to main

Methods Model 1

1. How many lines of code call the System.out.println method?

2. How many times is println actually called when the program runs?

3. For each CALL in the program trace on the right, draw an arrow to the corresponding method call on the left.

4. What is the output of the program? Please write \n to show each newline.

5. In your own words, describe what methods are for. Why not just write everything in main?

6. What is the difference between a method and a variable? What do they have in common?

7. When Java sees a name like x, count, or newLine, how can it tell whether it's a variable or a method? (Hint: syntax)

Methods Model 2

```java
public class Model2 {

    public static void baffle() {
        System.out.print("wug");
        ping();
    }

    public static void main(String[] args) {
        System.out.print("No, I ");
        zoop();
        System.out.print("I ");
        baffle();
    }

    public static void ping() {
        System.out.println(".");
    }

    public static void zoop() {
        baffle();
        System.out.print("You wugga ");
        baffle();
    }

}
```

1. How many method call statements are in this program?

2. In what order are the methods declared in the class?

3. Based on Model 1, describe the order in which methods actually run. What does that order have to do with your answer to #2?

4. What is the output of the program? Be precise about where there are spaces and where there are newlines.

- **Acknowledgements**

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