CSE 121 – Lesson 7

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Music: 121 23sp Lecture Vibes

TAs:				
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Announcements, Reminders

- Programming Assignment 1 is out, due Tues April 25
  - Start early!
  - Math Problems case study video walkthrough posted
- Resubmission Cycle 1 released yesterday, due Thurs April 27
- Quiz 0
  - Plan is to release grades tonight!
  - First opportunity for Quiz 0 Retakes will be Tuesday, April 25 (Retake details and form released tonight)

(PCM) Parameters

A value passed to a method by its caller

```
public static void myMethod(int num) {
    System.out.print(num + " is the best!");
    ...
}
```

Calling a method with a parameter…

```
myMethod(42);
```

(Review) Scope

- The part of a program where a variable exists.
  - From its declaration to the end of the { } braces
  - Ex: a variable declared in a for loop only exists in that loop
  - Ex: a variable declared in a method exists only in that method

```
public static void example() {
    System.out.println("hello");
    int x = 3;
    for (int i = 1; i <= 10; i++) {
        System.out.println(x);
    }
}
```

i's scope

x's scope

Poll in with your answer!

What will be the last line of output after this code has executed?

```
public static void main(String[] args) {
    int count = 5;
    line(count);
    System.out.println("count is: " + count);
}

public static void line(int count) {
    for (int i = 1; i <= count; i++) {
        System.out.print("*");
    }
    count++;
    System.out.println();
}
```

A. `count is: 5`

B. `count is: 6`

C. `count is: 1`

D. I'm lost

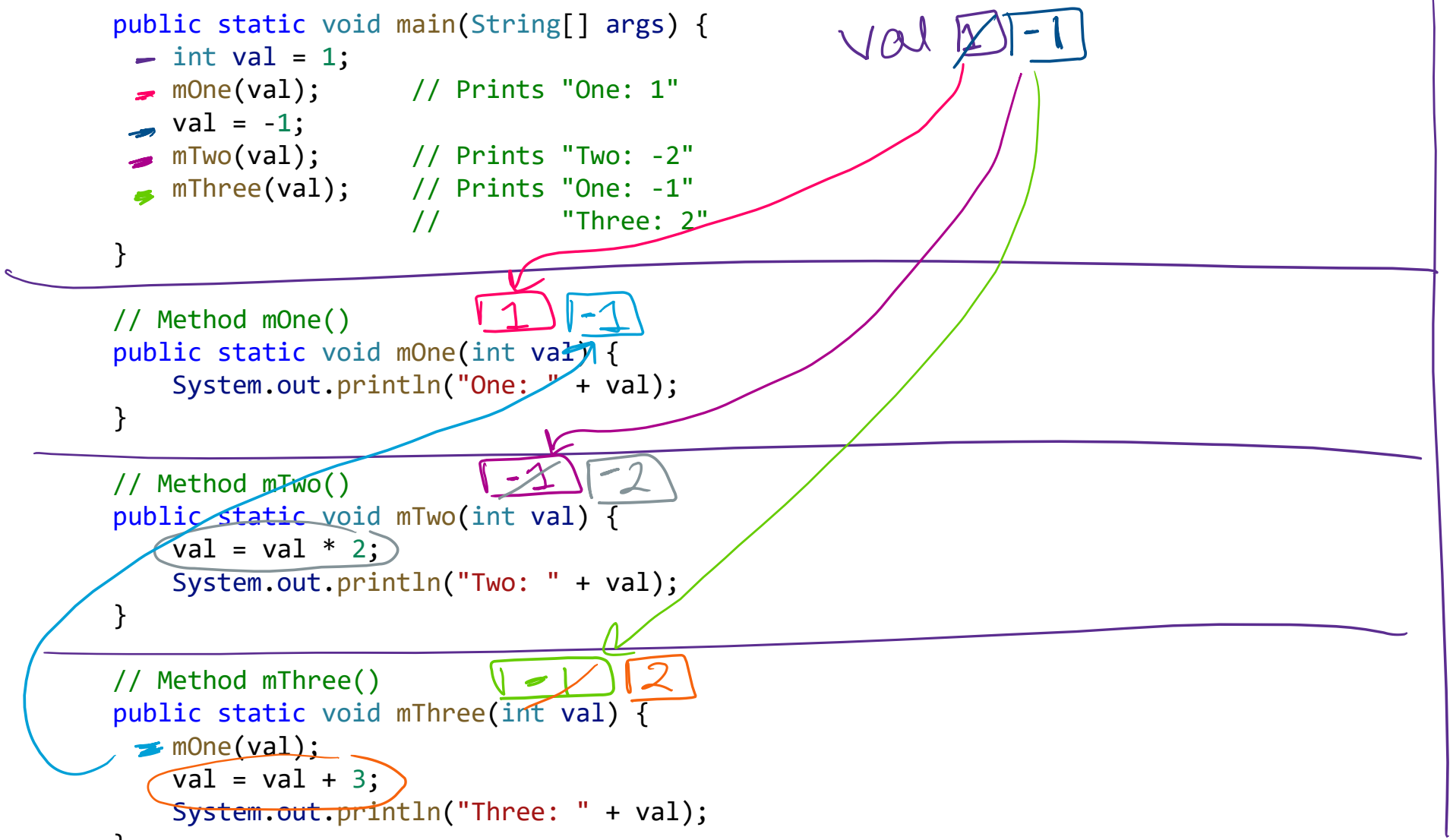
```java
public class Scope {

    public static void main(String[] args) {
        int val = 1;
        mOne(val);       // Prints "One: 1"
        val = -1;
        mTwo(val);       // Prints "Two: -2"
        mThree(val);     // Prints "One: -1"
                         //        "Three: 2"
    }

    // Method mOne()
    public static void mOne(int val) {
        System.out.println("One: " + val);
    }

    // Method mTwo()
    public static void mTwo(int val) {
        val = val * 2;
        System.out.println("Two: " + val);
    }

    // Method mThree()
    public static void mThree(int val) {
        mOne(val);
        val = val + 3;
        System.out.println("Three: " + val);
    }
}
```



Output:

One: 1

Two: -2

One: -1

Three: 2

Poll in with your answer!

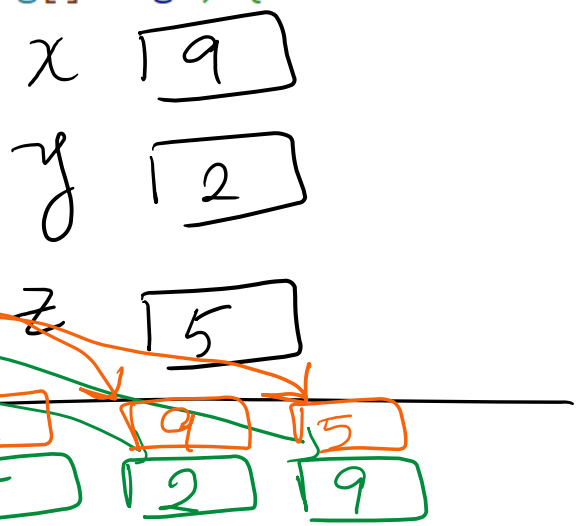
What is the output of this program?

```
public class ParameterMystery {
    public static void main(String[] args) {
        int x = 9;
        int y = 2;
        int z = 5;

        mystery(z, y, x);

        mystery(y, x, z);
    }

    public static void mystery(int x, int z, int y) {
        System.out.println(z + " and " + (y - x));
    }
}
```



A. 2 and 4
9 and 3

B. 5 and -7
5 and -7

C. 9 and -3
5 and -7

D. I'm lost

Output:

2 and 4

9 and 3