

## CSE 142 Section Handout #2 Style Sheet

Consider the following program:

```
public static void method() {
    for (int a = 1; a <= SIZEOFFIGURE; a++) {
        for (int b = 1; b <= -1 * a + SIZEOFFIGURE; b++) {
            System.out.print("+");
        }
        for (int c = 1; c <= 1; c++) {
            System.out.print("/");
        }
        for (int d = 1; d <= a - 1; d++) {
            System.out.print("+");
        }
        System.out.println("");
    }
}
```

SIZEOFFIGURE is a class constant declared earlier in the program. When SIZEOFFIGURE holds the value 4, this method produces the following output:

```
+++/  
++/+  
+/  
/+++
```

While this method would receive full external correctness, by producing the desired output, it would not receive full internal correctness. List all style issues that you can find.

## CSE 142 Section Handout #2 Style Sheet Solutions

Corrected:

```
public static void printFigure() {
    for (int i = 1; i <= SIZE_OF_FIGURE; i++) {
        for (int j = 1; j <= -1 * i + SIZE_OF_FIGURE; j++) {
            System.out.print("+");
        }
        System.out.print("/");
        for (int j = 1; j <= i - 1; j++) {
            System.out.print("+");
        }
        System.out.println();
    }
}
```

- **Indentation** – “The indentation of a program should increase by one tab every time a curly brace ( { ) is opened and decrease by one tab every time a curly brace ( } ) is closed. The number of spaces per tab doesn’t matter too much (usually 3 or 4 is good).” -CSE142 Style and Commenting Guide
  - Indentation issues of this nature may result in the loss of a style point on Homework 2.
- **For loop with one iteration** – “Remember that loops should only be used for repeated tasks; if you only need to do a task once, then there’s no need to introduce a loop in the first place.” - CSE142 Style and Commenting Guide
  - Loops that always execute their body only one time will lose one style point on Homework 2.
- **Naming Conventions** – names of class constants should be in all caps with underscores to separate words (e.g., SIZE\_OF\_FIGURE); method names should describe what that method does, so a more appropriate name for this method would be printFigure rather than the non-specific method.
  - Non-descriptive method names are potentially worth one style point on Homework 2.
  - You can look at the code style guide on the homework tab on the course website for more info on naming conventions
- **Loop variable names** – the loop variable names a, b, c, and d are non-descriptive (as are most single-letter variable names). “If you want to use one letter loop variable names, you should use this [i, j, k convention] (as opposed to using other arbitrary one letter loop variable names such as a, b, c, etc.). This convention says that all outer loops should use i, all once-nested loops should use j, and all twice-nested loops should use k (any further nesting beyond this point is highly unlikely)...If you don’t want to use one letter loop variable names, you can instead name your loop variables descriptively (i.e., just treat them like regular variables and try to give them fitting names based on how they are being used).”
- **Blank println** – “When printing a blank line, remember that a System.out.println() with blank parentheses is preferred over a System.out.println(“”) with useless quotation marks.” - CSE142 Style and Commenting Guide