Practice Midterm 1

Chapters 1 - 3

**You have 50 minutes to work on this exam. Answer each question to the best of your ability. If you are stumped, or don’t know how to write a specific piece of code, use comments, or sudo code, to describe the process or steps necessary to writing the program. As a suggestion, make tables to keep track of the variables in questions one and two if necessary.**

**Good Luck ☺**

**1. What is the output of the following program?**

**public class practiceMidtermProblem1 {**

**public static final int SIZE = 5;**

**public static void main(String[] args) {**

**for(int line = 1; line <= SIZE; line++) {**

**for(int i = 1; i <= SIZE - line; i++) {**

**System.out.print(i);**

**}**

**System.out.print("-");**

**for(int j = SIZE - line; j >= 1; j--) {**

**System.out.print(j);**

**}**

**System.out.println();**

**}**

**}**

**}**

**Output:**

**2. What is the output of the following program?**

**public class MixedNumberSalad {**

**public static void main(String[] args) {**

**int x = 4;**

**int eight = 2;**

**int one = 8;**

**String y = "three";**

**String z = "7";**

**String ten = "one";**

**addFour(x, one);**

**subtractFive(ten, y, z);**

**String four = getFive(z, x);**

**System.out.print(four);**

**}**

**public static void addFour(int eight, int x) {**

**System.out.println(x - eight + 10);**

**}**

**public static void subtractFive(String eight, String four, String one) {**

**System.out.print(four + " " + eight + " " + one + " ");**

**}**

**public static String getFive(String x, int z) {**

**z = z + 10;**

**return "x + z";**

**}**

**}**

**Output:**

**3. Write a program to produce the following pattern. Use a public final static int SIZE; to determine the size of the pattern that needs to be generated. Below are the outputs for sizes 4 and 5:**

**Size 4**

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**Size 5**

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**Write out the whole program code, including the class name and main method.**