**Lab Exercise 1**

**This receipt program has redundancy -- fix it using variables**

**public class Receipt {**

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

**// Calculate total owed, assuming 8% tax / 15% tip**

**System.out.println("Subtotal:");**

**System.out.println(38 + 40 + 30);**

**System.out.println("Tax:");**

**System.out.println((38 + 40 + 30) \* .08);**

**System.out.println("Tip:");**

**System.out.println((38 + 40 + 30) \* .15);**

**System.out.println("Total:");**

**System.out.println(38 + 40 + 30 +**

**(38 + 40 + 30) \* .08 +**

**(38 + 40 + 30) \* .15);**

**}**

**}**

Lab Exercise 2

Write a Java program that prints the first 6 terms of each of the following sequences on one line:

1. 2, 4, 6, 8, 10, 12, . . .
2. 4, 19, 34, 49, 64, 79, . . .
3. 30, 20, 10, 0, -10, -20, . . .
4. -7, -3, 1, 5, 9, 13, . . .

Your program should be a class named **Sequences** with a main method and produce output as shown above. Use variables procedural decomposition so that the main has few statements. Can there be just one method call in main?

Note that successive terms in each sequence differ by a constant amount -- 2 in the first sequence and 15 in the second. If **i** is the loop index starting at **0**, the terms for (A) are generated by **2\*i + 2** and for (B) by **15\*i + 4** .