Lab Session 14

**As usual, if you have not finished a previous lab, make sure to complete those before getting to these questions.**

**Part 1: Theory**

1. Write an algorithm to print the first 1000, negative numbers (i.e. -1,-2,-3,-4,-5,…)
2. Write an algorithm to print all the *even* (meaning divisible by 2) numbers from 10 to 100, including 100.
3. Write an algorithm to ask the user to enter 100 numbers and take the *sum* of those numbers.  
   Hint: In class, we did an example with a 2nd counter that kept track of how many positive numbers the user had entered. We added 1 to this variable every time the user entered a positive number. You should do something similar with a second counter. However, instead of adding 1 to it, you should add the number the user typed.
4. Write an algorithm that lets the user enter numbers until they enter an *odd* number (i.e. a number that is not evenly divisible by 2). After they type an odd number, your program should display the total number of even numbers they’d typed before.

Part 2: Application

The following questions exercises on if block, use as practice for the quiz.

1. Write a method in Java called *getDay*. This method must take an integer as input, and return a String, representing the day of the week in words. In the main method, get the int from the user, check if it is valid (i.e. in the range of 1 to 7), if it is call the getDay method and print the day. If the input integer is invalid, then print “Invalid value” and the program must end.
2. To the previous question, add another method called *isWeekend*, which should take a String, representing the day as input and return true if it is a weekend. Modify the main method to also print if it is the weekend or not.
3. A student will not be allowed to sit in exam if his/her attendence is less than 75%

Write a method called *checkAttendance* that takes as input 2 int values representing the the number of classes held and the number of classes attended and calculate the percentage of attendance. Then the method should print the percentage and return a boolean which should be true if the student can write the exam and false otherwise. In the main method, ask the user to enter number of classes held and attended and print if the student can write the exam or not.