Programming Exercise 3A

NOTE: All programs that you write must have comments at the top with 1) the program name, 2) your name, and 3) a sentence describing what the program does.

1. Create a program called **Program3A1** that will calculate an employee's pay for the week. Ask the user for the employee's pay rate and the total hours that the employee worked during the week. (Both float variables.)

   - If totalHours is greater than 40 then
     - regularHours = 40
     - calculate how many overtime hours they worked (hours over 40),
     - calculate regular pay as 40 * pay rate
     - calculate overtime pay as overtime hours * pay rate * 1.5
     - totalPay is overtime pay + regular pay
     - print the output as follows:
       regHours regular and **overtimeHours** overtime at **payRate** = **totalPay**

   - else do the following
     - regularHours = totalHours
     - Calculate total pay as total hours * pay rate
     - print the output as follows:
       regHours regular at **payRate** = **totalPay**

2. Create a new program called **Program3A2** that will ask the user to enter an integer
   - The program should use a for loop to:
     - Add all the numbers between 1 and the input number.
     - Count all the numbers between 1 and the input number.
   - After the loop has completed, calculate the average of all the numbers between 1 and the input number (using the count and the total you just computed).
   - Print the total and average with labels.

3. Write a program called **Program3A3** that loops 5 times. Inside the loop it should:
   a. Ask the user for an integer
   b. Determine whether the integer is even or odd.
   c. Print a statement to say if the number is even or odd.