**Exercises**

**Create an algorithm (PSEUDOCODE and FLOWCHART) for the following problems.**

**LE 5.11 *Average of Even Numbers and Product of Odd Numbers***. Program that will ask 10 integers and display the average of all even numbers and the product of all odd numbers entered by the user

**LE 5.12 *Passcode Lock***. Program that will ask the correct numeric passcode before the user can continue his task. The user is given only three trials to enter the correct passcode. When the user hit the correct passcode the program will display “**ACCESS GRANTED**”, otherwise it will display “**ACCESS DENIED**” after three attempts.

**LE 5.13*Problem Solver Menu***. Create a program that lets the user choose an operation (power problem solver, factorial problem solver, or finding roots for quadratic equations using quadratic formula) from the menu. The program will always go back to the menu and lets the user choose again an operation until the user would like to quit using the app.

* + **Note:** For quadratic problems, it still follow the rules below:
    - If both a and b are zero, there is no solution
    - If a is zero, there is only one root (-c/b).
    - If the discriminate (b2-4ac) is negative, there are no real roots
    - For all other combinations, there are two roots.