

### Tutorial 3

#### Conditional statements (if..else, switch)

##### Exercise 1:

1. Write the algorithm that reads a number and displays either it is an odd or even one.
2. Write the C program that reads three numbers, then it displays their maximum.
3. Write an algorithm/C program that calculates the ideal weight based on the height of the person entered in centimeters using the following formula:

Ideal Weight (IW) = (height in cm - 100) - (height cm - 150)/f,  
where f = 4 for males, f = 2.5 for females.

##### Exercise 2:

- a. Draw the flowchart that solves the second order equation,  $aX^2+bX+c = 0$ ; where a, b, and c are numbers given by the user.
- b. Write the algorithm that solves the second order equation,  $aX^2+bX+c = 0$ ; where a, b, and c are numbers given by the user.
- c. Write the corresponding C program.

##### Exercise 3:

Write the C program that (use switch):

- a. Asks the user if he wants to calculate the area of a circle, a square, or a rectangle
- b. Allows the user to provide the corresponding data
- c. Displays the result.