University of Echahid Hamma Lakhdar Faculty of Exact Sciences Department of Computer Science Module: Algo & Data Structure I University Year: 2025/2026 01 November 2025

# **Supplementary Series of Exercises No : 01**

# **Basic instructions**

# Exercise N°: 01

Write an algorithm that asks the user to enter two integers, then calculates and displays their sum and product.

### Exercise N°: 02

Write an algorithm that asks the user to enter three integers, then calculates and displays their average.

#### Exercise N°: 03

Write an algorithm that asks the user to enter a length in centimeters, then converts it to inches and displays the conversion. (1 inch = 2.54 cm).

#### Exercise No: 04

Write an algorithm that calculates and displays the total price of an order by asking the user to enter the unit price of a product and the quantity ordered. The total price can be calculated by multiplying the unit price by the quantity.

# Exercise N°: 05

Write an algorithm that asks the user to enter a temperature in Celsius and then converts it to Fahrenheit. Use the formula Fahrenheit = (Celsius \* 9/5) + 32 to perform the conversion.

#### Exercise N°: 06

Write an algorithm that asks the user to enter an integer, then displays the square of that number.

#### Exercise N°: 07

Write an algorithm that calculates and displays the perimeter and area of a circle. The user must enter the radius of the circle.

### Exercise N°: 08

Write an algorithm that asks the user to enter two integers, then calculates the sum of their squares and displays the result.

# Exercise N°: 09

Write an algorithm that asks the user to enter the departure time and arrival time (in hours and minutes, for example, 2 hours and 10 minutes) of a trip in the same day, then calculates and displays the trip duration without converting times to minutes.

### Exercise No: 10

Write an algorithm that asks the user to enter a positive real number, then calculates and displays its square and square root.