Benha University
Faculty of Engineering
Electrical Engineering Department

Semester ❷ (1ˢᵗ year)
Computer Programming (a) - E1123
Fall Semester 2022- 2023

Lab. (3)
C++ Fundamental Operations

Answer the following questions

1) Write a program in C++ to print a welcome text in a separate line.

2) Write a program in C++ to print the sum of two numbers.

3) Write a program in C++ to find Size of fundamental data types.

   <u>Using function sizeof(used data types)</u>

4) Write a program in C++ to print the sum of two numbers using variables.

5) Write a program in C++ to display various type or arithmetic operation using mixed data type. Such as:

   <u>5 + 7 = 12.</u>   <u>3.7 + 8.0 = 11.7</u>

   <u>5 + 8.0 = 13.0.</u>   <u>5 - 7 = -2</u>
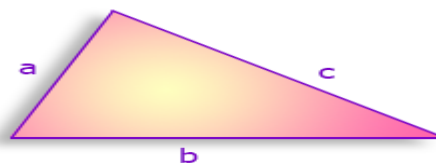
6) Write a program in C++ to display the operation of pre and post increment and decrement.

7) Write a program in C++ to print the result of the specified operations.

   <u>(-1+4*6)</u> - <u>((35+5) %7)</u> - <u>(14+-4*6/11)</u> - <u>(2+15/6*1-7%2)</u>

8) Write a program in C++ to add two numbers accept through keyboard.

9) Write a program in C++ to swap two numbers.

10) Write a program in C++ to calculate the volume of a sphere.

11) Write a program in C++ to calculate the volume of a cube.

12) Write a program in C++ to find the Area and Perimeter of a Rectangle.

13) Write a program in C++ to find the area and circumference of a circle

14) Write a program in C++ to convert temperature in Celsius to Fahrenheit.

15) Write a program in C++ that converts kilometers per hour to miles per hour.

16) Write a program in C++ to compute quotient and remainder.

17) Write a program in C++ to compute the total and average of four numbers.

18) Write a program in C++ to check whether a number is positive, negative or zero.

19) Write a program in C++ to divide two numbers and print on the screen.

20) Write a program in C++ to compute the specified expressions and print the output.

   the expression (25.5 * 3.5 - 3.5 * 3.5) / (40.5 - 4.5) is: 2.13889

21) Write a language program in C++ which accepts the user's first and last name and print them in reverse order with a space between them.

22) Write a program in C++ to find the area of any triangle using Heron's Formula.

Heron's Formula :- Area $= \sqrt{s(s-a)(s-b)(s-c)}$

$s = \dfrac{a+b+c}{2}$

23) Write a program in C++ which swap the values of two variables not using third variable.