

Programming – TU857/1

Lab 2 – Monday, October 2nd, 2023

Note: You are expected to finish all programmes in your own time if you do not get these done during the lab session. This is your own responsibility.

1. Write a program to do the following:
 - Calculate and display the sum of the integers 1 to 5
 - Calculate and display the average of the following floating-point numbers: 1.0, 1.1, 1.2, 2.0

2. **Mandatory Exercise Question – You must complete and Demo to your Lab TA**

Write a program to do the following:

- (i) Calculate and display on separate lines:

- the volume
- the surface area

of a box with height 10cm, length 11.5cm, width 2.5cm

- (ii) Calculate the area of a circle with a radius of 4.8 cm. You can assume the value of Π (pi) is 3.14

3. Write a program that uses the modulus operator, i.e., %, to calculate and display the remainder for the following arithmetic operations: (display the remainder beneath each operation)

- $2 \% 2$
- $3 \% 2$
- $5 \% 2$
- $7 \% 3$
- $100 \% 33$
- $100 \% 7$

4. Write a program to calculate and display the volume of a cube. The length of all sides of the cube is 2.8 m. Display the volume.

5. Write a program to perform the following operations and display the result:

- $15 + 10$
- $15 - 10$
- $15 * 10$
- $15 / 10$
- $15 \% 3$

(don't forget to use a variable to store the result of the operation you perform). The type of variable you use is important, depending on the operation you perform, so be careful!!!