

## Programming – TU856/1 & TU858/1

### Lab 2 – Tuesday, October 20<sup>th</sup>, 2020

**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. Write a program to compute and display on separate lines:
  - the volume
  - the surface area

of a box with height 10cm, length 11.5cm, width 2.5cm
3. Write a program to calculate and display the area of a circle with a radius of 4.8 cm. You can assume the value of  $\Pi$  (pi) is 3.14
4. Write a program that uses the modulus operator, i.e. % to calculate and display the remainder for the following arithmetic operations:
  - $2 \% 2$
  - $3 \% 2$
  - $5 \% 2$
  - $7 \% 3$
  - $100 \% 33$
  - $100 \% 7$
5. 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.
6. 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!!!

**Note:** Close each file (program) before starting a new file (program) for the next question.