

7 Homework

You should write a C program which calculates the integrals of the functions given below by using the method mentioned in your text book (Trapezoidal Rule).

$$1. y = \cos(x^2) + 2x^3 \quad (a : 0, b : 2, n : 10) \quad (1)$$

$$2. y = \frac{2}{1+x^2} \quad (a : 0, b : 2, n : 10) \quad (2)$$

$$3. y = x - 3 \quad (a : 0, b : 2, n : 10) \quad (3)$$

- The user should select the function to be calculated from the menu. The menu should look like:

Enter the function number you want to calculate (1, 2 or 3)?
ENTER YOUR CHOICE

- Then the parameters written in the parenthesis should be read.

Program should write the output values to output.txt file as a table as follows (written results are just for illustration, not real results):

<u>a</u>	<u>b</u>	<u>Trapezoidal</u>
0	2	1.1122