Assignment 2

Due on 2020-09-08, 22:00 IST

Unit 5 - Week 2: One dimensional Finite Element Analysis

The date for submitting this assignment has passed. Do not hesitate to ask for any clarifications or feedback on your submission.

1. Answer the question from "H" to "K" in 1.1-1.3 with the help of below statement.
   The integrator \( f = \int_a^b f(x) \, dx \) is a useful numerical integration.
   \( I \) is a numerical integral of \( f \) on the interval \( [a, b] \).
   \( x \) is a given point in \( (a, b) \).
   \( f(x) \) is a continuous function.
   \( x_1 \) is a given point in \( (a, b) \).
   \( x_2 \) is a given point in \( (a, b) \).
   \( f(x_1), f(x_2) \) are the values of the integrand at \( x_1 \) and \( x_2 \).
   \( \Delta x = x_2 - x_1 \) is the width of the interval.
   \( f(x) \) is a continuous function.

2. What is the value of integration within the interval \( (a, b) \) of the given data from point A to point C?

3. What is the value of the integral within the interval \( (a, b) \) of the given data from point A to point D?

4. What is the value of the integral within the interval \( (a, b) \) of the given data from point A to point D?

5. What is the value of the integral within the interval \( (a, b) \) of the given data from point A to point D?

6. What is the value of the integral within the interval \( (a, b) \) of the given data from point A to point D?

7. What is the value of the integral within the interval \( (a, b) \) of the given data from point A to point D?

8. What is the value of the integral within the interval \( (a, b) \) of the given data from point A to point D?

9. What is the value of the integral within the interval \( (a, b) \) of the given data from point A to point D?

10. What is the value of the integral within the interval \( (a, b) \) of the given data from point A to point D?