

Lab 6 Daily Evaluation (4 Marks)

1.

$$f(x) = \frac{-1}{13}x^3 + 2x^2 - 9.5x - 10$$

Use interval bisection method to find the root, x of $f(x)$, on the interval $[-10,0]$, where the error bound, $\delta = 10^{-2}$

2.

Let $f(x)$ be a function of x .

$$f(x) = x^5 + 2.5x^4 - 2x^3 - 6x^2 + \frac{x}{2} + 2$$

a. Find the actual roots of $f(x)$ and print them.

b. Given,

$$g_1(x) = \sqrt[4]{\frac{1}{2.5}(-x^5 + 2x^3 + 6x^2 - \frac{1}{2}x - 2)}$$

c. Plot the function in $[0,2]$ and plot the root you found from b and verify by looking at the graph.

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