

Assignment 6. Bisection & Regula Falsi

Marks 10

Posted on 03.09.2025 @ 2:30 pm and due on 03.09.2025 @ 6:00 pm

1. Find the root of the following function in the interval $[1.5, 3.0]$ to an accuracy of 10^{-6} using both Bisection and Regula Falsi method. **[3+3]**

$$f(x) = \log(x/2) - \sin(5x/2)$$

2. Consider the following non-linear equation

$$f(x) = -x - \cos(x)$$

Find an appropriate interval bracket in which the root possible is, starting with the interval $[2, 4]$. **[5]**