

Assignment 8. Laguerre's method

Marks 10

Posted on 10.09.2025 @ 2:30 pm and due on 10.09.2025 @ 6:00 pm

1. Use Laguerre's method and deflation to find the roots (all real) of the following three polynomials.

$$P_1(x) = x^4 - x^3 - 7x^2 + x + 6$$

$$P_2(x) = x^4 - 5x^2 + 4 = 0$$

$$P_3(x) = 2x^5 - 19.5x^3 + 0.5x^2 + 13.5x - 4.5$$