# Engineering Software Laboratory (ME69003)

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## Problem Statement

Calculate all roots of the given equation using the Durand-Kerner Method (Fixed-Point Iteration Method) or Weierstrass Method in Excel:

$$x^3 - 3x^2 + 3x - 5 = 0$$

Initial guesses for x are:
$$p_0 = 1, q_0 = 0.4 + 0.9i, r_0 = -0.65 + 0.72i$$

Repeat the same problem for the Durand-Kerner Method using Simultaneous Iterations, in which the most recently calculated value of assumed roots is substituted back to find the next root.