

Engineering Software Laboratory (ME69003)

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Problem Statement

Calculate the square root of the given equation using the Muller method in Excel

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

Initial guesses are

$$x_0 = -1, x_1 = 0, x_2 = 1$$

Consider maximum value out of $(|b + \sqrt{b^2 - 4ac}|, |b - \sqrt{b^2 - 4ac}|)$ to find x where value of x is given by

$$x = \frac{-2c}{b \pm \sqrt{b^2 - 4ac}}$$