Homework 4

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1 Problem 1

Let $f(x) = x^2 - 2x + 2$

(a) Find the Newton-Raphson formula $p_k = g(p_k - 1)$

(b) Start with $p_0 = -1.5$ and find p_1, p_2, and p_3.

2 Problem 2

Let $f(x) = x^2 - x - 3$

(a) Find the Newton-Raphson formula $p_k = g(p_k - 1)$.

(b) Start with $p_0 = 1.6$ and find p_1, p_2, and p_3.

(c) Start with $p_0 = 0.0$ and find p_1, p_2, p_3, and p_4. What do you conjecture about this sequence?