

AGWANI RU ROSEMARY
17ENG01/003
CHEMICAL ENGINEERING
MATLAB CODE

→ Command window

→ clear

→ clc

→ format short g

→ x(i) = 0.5;

→ k = 1

→ tol = 1E-21;

→ max i = 50;

→ err(i) = 0;

→ Syms x

→ g = (exp(-0.5 * x) + (4 - x)) - 2;

→ g_prime = diff(g)

→ for k = 2:max i;

→ x(k) = (x(k-1)) - ((subsg, x(k-1)) / subs(g_prime,
x(k-1)));

→ k = x[k - k];

→ err(k) = abs(x(k) - x(k-1))

→ if err(k) <= fil, break, end;

→ end

SOLUTION TO MATLAB

1	0.5	0
2	0.83889	38.889
3	8.88571	4.6065
4	0.98571	0.07526
5	0.88571	1.904e ^{-0.5}
6	0.8857	1.3545e ⁻¹²
7	0.8857	0