

ESSANG ROSEMARY AJIT

17/ENG07/028

ELECT/ELECT ENGINEERING

ENG 382 [ASSIGNMENT 2]

Command window

clear

clc

close all

format short g

x(1) = 0.5; c = 1; sol = 1E-21; maxl = 50; err(1) = 0

syms x

g = (exp(-0.5 \* x) + (4 - x) - 2);

gprime = diff(g);

for i = 2:maxl

x(c) = (x(c-1) - (subs(g, x(c-1)) / subs(gprime, x(c-1))))

c = [c]

err(c) = abs(x(c) - x(c-1)) \* 100

if err(c) <= sol, break, end;

end

table > [c' x' err']

table =

1	0.5	0
2	0.73889	53.859
3	0.88496	4.6065
4	0.88571	0.07526
5	0.88571	1.9704e-0.5
6	0.88571	1.3645e-12
7	0.88571	0