

AKUMA SUNNY. U.

21st March, 20

17/ENGG04/009

ELECT/ELECT

ENGG 382 ASSIGNMENT II

Command window

clear

clc

Syms x

format short g

f = exp(-0.5 * x)^k * (4 - x) - 2

fprime = diff(f);

a = 0.5;

for i = 1:10

iter(i * 1) = i

x(i) = x_i

k = double(solve(x - (f / fprime)));

x(i+1) = x_i

ea(i+1) = abs((x(i+1) - x(i)) / x(i+1)) * 100

if ea(i) < 1E-21

break

end

end

Sunny = Table(iter, x, ea)

Sunny properties variable names - {iteration number, 'values of x', 'error'}

Iteration no	Values of x	errors
0	0.5	0
1	0.83889	40.391
2	0.88496	5.2054
3	0.88571	0.684972
4	0.88571	$2.2247e^{-0.5}$
5	0.88571	$1.5293e^{-12}$
6	0.88571	0