

OJI Udochukwa Ebenezer

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ELECT - Elect

Eng 382 Assignment

- Command window

- clear

- clc

- format short g

- x(1) = 0.5;

- K = 1

- tol = 1e-21;

- max_1 = 50;

- ~~err~~ - err(x) = 0

- sym s

- g = (exp(-0.5 * x) * (4 - x)) - 2

- sym g = diff(g);

- for k = 2 : max

$x(k) = (x(k-1)) - (sym g, x(k-1)) / subs(sym g, x(k-1))$

K = [K K];

err(k) = abs(sym g, x(k)) / x(k)

for k < tol, break, end

- end

Table = [K; x; err]

1	0.5	0
2	0.83889	33.889
3	0.88571	4.6065
4	0.88571	0.07526
5	0.88571	1.9724e ^{-0.5}
6	0.88571	1.3545e ⁻⁰
7	0.88571	0