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 IT/EN404/001
 Engineering Maths; 382.

Command window

clear

clc

syms x

format shortg

$$F = \exp(0.5 * x) * (4 - x) - 2$$

$$F_{prime} = \text{diff}(F)$$

$$x = 0.5$$

$$\text{iter}(i+1) = i$$

$$x(i) = x;$$

$$x = \text{double}(\text{subs}(x - F / F_{prime}));$$

$$x(i+1) = x;$$

$$\text{error}(i) = (x(i+1) - x(i)) * 100;$$

$$\text{if } \text{error}(i) < 10 -$$

break

end

$$\text{funny} = \text{table}(\text{iter}, x, \text{error})$$

funny properties variable named @ character number, values or x

funny

iter	value of x	error
0	0.5	0
1	0.83889	40.39
2	0.88996	0.003492
3	0.88571	2.2210
4	0.88571	1.5610
5	0.88571	0
6	0.88571	0