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Civil Engineering

17/ENG03/052

Engineering Mathematics II - ENG 382

~~Udobang~~

Assignment;

1) - Command window

- clear

- clc

- format

- v = 0.5;

- m = 3.5;

- g = 9.81;

- f = m * g

- v = sqrt(((3 * f + (0.02) * v)) * (log(v))^3 + (10 * v) + 17150) / 0.3);

- for i = 1:inf

- iter(i+1) = i;

- v(i+1) = sqrt(((3 * (f + (0.02) * v(i)))) * (log(v(i)))^3 + (10 * v(i)) + 17150) / 0.3);

- ea(i+1) = abs((v(i+1) - v(i)) * 100);

- If ea(i+1) <= 0.0000000001

- break

- end

- table = table(iter', v', ea')

Table (20x3)

Var 1	Var 2	Var 3
0	239.05	0
1	294.2	5514.9
2	302.65	844.85
3	303.89	124.7
4	304.08	18.312
5	304.1	2.6871
6	304.11	0.29425
7	304.11	0.057844
8	304.11	0.0084868
9	304.11	0.0012452
10	304.11	0.00018269
11	304.11	2.6804e-05
12	304.11	3.9326e-06
13	304.11	5.7699e-07
14	304.11	8.4651e-08
15	304.11	1.242e-08
16	304.11	1.8247e-09
17	304.11	2.6716e-10
18	304.11	3.979e-11
19	304.11	5.6843e-12