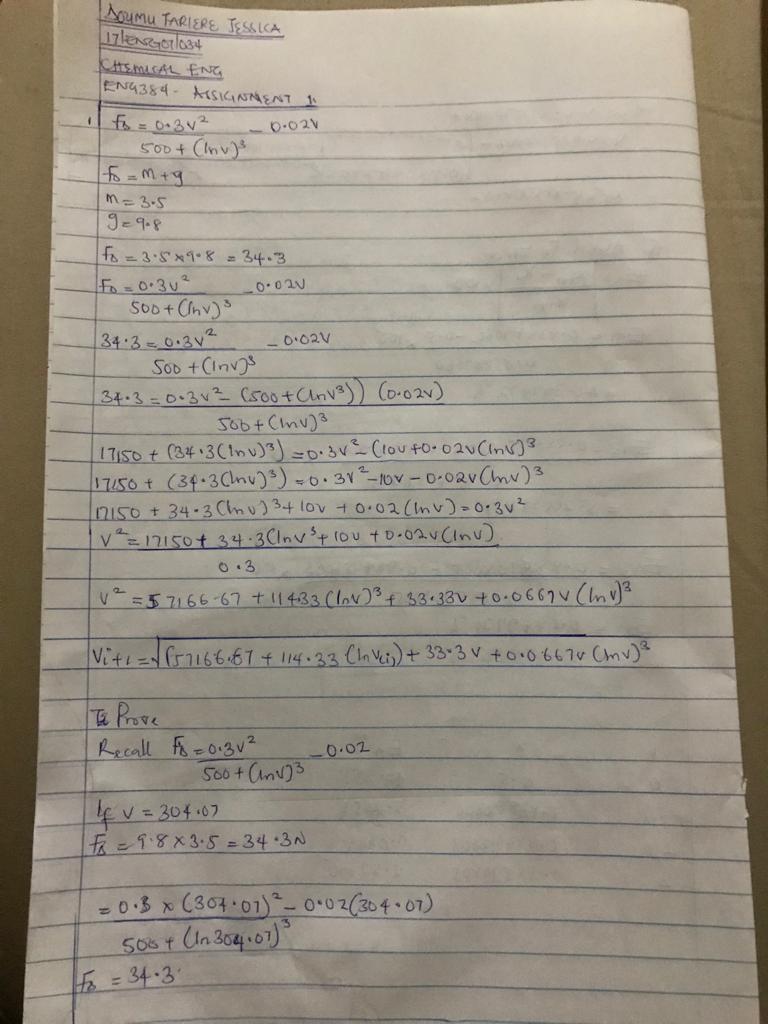
DOUMU TARIERE JESSICA

CHEMICAL ENGINEERING

17/ENG01/029



Code on matlab:

commandwindow

clear

clc

format short g

syms v

v=0.5

for i=1:inf

iter(i+1)=i

v(i+1)=sqrt((34.4+0.02\*v(i))\*(500+(log(v(i))^3))/0.3);

Ea(i+1)=abs((v(i+1)-v(i))/v(i+1))\*100;

if Ea(i+1)<=1E-11

break

end

end

iter'

v'

Ea'

table(iter',v',Ea')

Output:

v =

0.5

Warning: Too many FOR loop iterations. Stopping after 9223372036854775806 iterations.

> In Untitled22 (line 7)

iter =

0 1

iter =

0 1 2

iter =

0 1 2 3

iter =

0 1 2 3 4

iter =

0 1 2 3 4 5

iter =

0 1 2 3 4 5 6

iter =

0 1 2 3 4 5 6 7

iter =

0 1 2 3 4 5 6 7 8

iter =

0 1 2 3 4 5 6 7 8 9

iter =

0 1 2 3 4 5 6 7 8 9 10

iter =

0 1 2 3 4 5 6 7 8 9 10 11

iter =

0 1 2 3 4 5 6 7 8 9 10 11 12

iter =

0 1 2 3 4 5 6 7 8 9 10 11 12 13

iter =

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

iter =

Columns 1 through 15

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Column 16

15

iter =

Columns 1 through 15

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Columns 16 through 17

15 16

iter =

Columns 1 through 15

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Columns 16 through 18

15 16 17

ans =

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

ans =

0.5

239.4

294.6

303.05

304.29

304.48

304.5

304.51

304.51

304.51

304.51

304.51

304.51

304.51

304.51

304.51

304.51

304.51

ans =

0

99.791

18.737

2.7883

0.40956

0.060061

0.0088058

0.001291

0.00018927

2.7749e-05

4.0682e-06

5.9644e-07

8.7442e-08

1.282e-08

1.8795e-09

2.7555e-10

4.0396e-11

5.9362e-12

ans =

18×3 table

Var1 Var2 Var3

\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

0 0.5 0

1 239.4 99.791

2 294.6 18.737

3 303.05 2.7883

4 304.29 0.40956

5 304.48 0.060061

6 304.5 0.0088058

7 304.51 0.001291

8 304.51 0.00018927

9 304.51 2.7749e-05

10 304.51 4.0682e-06

11 304.51 5.9644e-07

12 304.51 8.7442e-08

13 304.51 1.282e-08

14 304.51 1.8795e-09

15 304.51 2.7555e-10

16 304.51 4.0396e-11

17 304.51 5.9362e-12