

UJUNWA FATIMA
16/ENG02/057
COMPUTER ENGINEERING

```
commandwindow
clear
clc
format short g
close all
v=0.5
for i=1:10;
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
F=[iter' v' Ea']
A=[iter; v; Ea]
RESULT
v =
0.5
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
F =
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
A =
Columns 1 through 9
0 1 2 3 4 5 6 7 8
0.5 239.4 294.6 303.05 304.29 304.48 304.5 304.51 304.51
0 99.791 18.737 2.7883 0.40956 0.060061 0.0088058 0.001291 0.00018927
Columns 10 through 11
9 10
304.51 304.51
2.7749e-05 4.0682e-06

```