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Code

```
commandwindow
clear
clc
format short g
syms v
v = 0.5
for f = 1:20
    iter(f+1) = f;
    v(f+1) = sqrt(10/3*(34.3+0.02*v(f))*(500+log(v(f))^3));
    Ea(f+1)=(abs(v(f+1)-v(f))/v(f+1))*100;
    if Ea(f+1)<=1E-11
        break
    end
end
table(iter',v',Ea')
```

Answer

v =

0.5

ans =

18×3 table

Var1	Var2	Var3
0	0.5	0
1	239.05	99.791

2	294.17	18.736
3	302.61	2.7894
4	303.85	0.40992
5	304.04	0.060144
6	304.06	0.0088222
7	304.07	0.0012941
8	304.07	0.00018981
9	304.07	2.7842e-05
10	304.07	4.0838e-06
11	304.07	5.9902e-07
12	304.07	8.7865e-08
13	304.07	1.2888e-08
14	304.07	1.8904e-09
15	304.07	2.7729e-10
16	304.07	4.0679e-11
17	304.07	5.9635e-12