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17/ENG04/057

ELECTRICAL ELECTRONICS ENGINEERING

ENGINEERING MATHEMATICS ASS

LMS 2

CODE:

1. Commandwindow
2. clear
3. clc
4. x(1)=0.5
5. K=1
6. tol=1E-21
7. max1=10
8. err(1)=0
9. syms x
10. g=(1/-0.5)\*log(2/4-x)
11. gprime= diff(g)
12. for k=2:max1;
13. x(k)=(x(k-1)-((subs(g,x(k-1)))/subs(gprime,x(k-1))))
14. K=[K k]
15. err(k)=abs(x(k)-x(k-1))\*100
16. if err(k)<=tol,break,end;
17. end
18. tablo=[K' x' err']

OUTPUT:

|  |  |  |
| --- | --- | --- |
| 1 | 0.5 | 0 |
| 2 | 0.83889 | 33.889 |
| 3 | 0.88496 | 4.6065 |
| 4 | 0.88571 | 0.07526 |
| 5 | 0.88571 | 1.8704E-0.5 |
| 6 | 0.88571 | 1.354E-12 |