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Solution

```
Command window
Clear
clc
Syms x
format short
f= exp(0.5*x)*(4-x)-2;
fPrime=diff(f);
x=0.5;
for i = 1:10;
iter(i+1)=i;
x(i)=x;
x=double(subs(x-(f/fPrime)))
x(i+1)=x;
ea(i+1)=abs((x(i+1)-x(i))/x(i+1))*100;
if ea(i+1)<=1e-2;
break
end
end
Abdul=table(iter, x, ea')
Abdul.properties.VariableNames={'iteration number' 'values of x' 'error'}
```

Output

Andy

Iter	values of x	Error
0	0.5	0
1	0.83889	40.397
2	0.88496	5.2054
3	0.88571	0.084972
4	0.88571	2.2207e-05
5	0.88571	1.5293e-12
6	0.88571	0