Command window

```
Clear
clc
syms x
format short g
f = exp(-0.5*x)*(4-x)-2;
fprime = diff(f)
x = 0.5
for i = 1:10
iter(i+1) = i;
ex(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
Tboy = table('iter', 'x', 'ea')
```

Tboy properties: variable names = {iteration number, values of x, errors

Output Tboy:

iter	Values of x	Error
0	0.5	0
1	0.85889	40.597
2	0.88496	6.2057
3	0.88871	0.084972
4	0.88871	2.2247e-06
5	0.88871	1.6298e-12
6	0.88871	0