

Console

n	x	f(x)
1	0.0000000000	1.0000000000
2	1.0000000000	1.0841470985
3	1.0841470985	1.0883904862
4	1.0883904862	1.0885881390
5	1.0885881390	1.0885973066
6	1.0885973066	1.0885977317
7	1.0885977317	1.0885977514

The solution of this equation after 7 iterations is 1.0885977514