

Console

n	xn Xn+1	f(xn) Error	f1(xn)
0	2.0000000000 4.0000000000	0.2706705665 2.0000000000	-0.1353352832
1	4.0000000000 5.3333333333	0.0732625556 1.3333333333	-0.0549469167
2	5.3333333333 6.5641025641	0.0257490666 1.2307692308	-0.0209211166
3	6.5641025641 7.7438260664	0.0092559678 1.1797235023	-0.0078458790
4	7.7438260664 8.8921098433	0.0033562528 1.1482837769	-0.0029228426
5	8.8921098433 10.0188186728	0.0012223922 1.1267088294	-0.0010849229
6	10.0188186728 11.1296979394	0.0004463740 1.1108792666	-0.0004018204
7	11.1296979394 12.2284175661	0.0001632740 1.0987196268	-0.0001486039
8	12.2284175661 13.3174773107	0.0000597910 1.0890597445	-0.0000549015
9	13.3174773107 14.3986627657	0.0000219137 1.0811854550	-0.0000202682
10	14.3986627657 15.4732970794	0.0000080364 1.0746343137	-0.0000074783

Therefore, this is not convergent (i.e.) divergent