

Console

n	xn f(Xn+1)	f(xn) Xn+2	Xn+1 Error
0	0.5671230080 -1.1231891563	-0.4753896281 0.2494549282	1.0000000000 0.3176680798
1	1.0000000000 0.2880851411	-1.1231891563 0.4026646078	0.2494549282 0.5973353922
2	0.2494549282 -0.1040599204	0.2880851411 0.3620087673	0.4026646078 0.1125538391
3	0.4026646078 -0.0039682885	-0.1040599204 0.3603969032	0.3620087673 0.0422677045
4	0.3620087673 0.0000620448	-0.0039682885 0.3604217170	0.3603969032 0.0015870503
5	0.3603969032 -0.0000000352	0.0000620448 0.3604217030	0.3604217170 0.0000247997
6	0.3604217170 -0.0000000000	-0.0000000352 0.3604217030	0.3604217030 0.0000000141
7	0.3604217030 -0.0000000000	-0.0000000000 0.3604217030	0.3604217030 0.0000000000
8	0.3604217030 -0.0000000000	-0.0000000000 0.3604217030	0.3604217030 0.0000000000

Therefore, the root is 0.3604217030