

Console

n	x_n $f(x_{n+1})$	$f(x_n)$ x_{n+2}	x_{n+1} Error
0	0.0000000000 -2.1779795226	1.0000000000 0.3146653378	1.0000000000 0.3146653378
1	1.0000000000 0.5198711738	-2.1779795226 0.4467281446	0.3146653378 0.5532718554
2	0.3146653378 0.2035447778	0.5198711738 0.5317058606	0.4467281446 0.2170405228
3	0.4467281446 -0.0429310932	0.2035447778 0.5169044676	0.5317058606 0.0701763230
4	0.5317058606 0.0025927631	-0.0429310932 0.5177474653	0.5169044676 0.0139583954
5	0.5169044676 0.0000301119	0.0025927631 0.5177573708	0.5177474653 0.0008529032

Therefore, the root is 0.5178 correct upto 4 decimal places