

Console

n	xn Xn+1	f(xn) Error	f1(xn)
0	1.5000000000 1.7861952862	-1.0625000000 0.2861952862	3.7125000000
1	1.7861952862 1.7107894233	0.7239329540 0.0754058629	9.6004862996
2	1.7107894233 1.7001874737	0.0800135696 0.0106019496	7.5470618805
3	1.7001874737 1.7000000574	0.0013663706 0.0001874162	7.2905675473

The solution of this equation by newton raphshon after 4 iterations is 1.7000000574

n	x1 f(x2)	x2 f(x3)	f(x1) x3	x2 f(x3)	x2 f(x3)	x2 f(x3)
0	1.000000	-2.100000	2.000000	3.600000	1.368421	-1.458356
1	1.368421	-1.458356	2.000000	3.600000	1.550509	-0.857895
2	1.550509	-0.857895	2.000000	3.600000	1.637011	-0.414391
3	1.637011	-0.414391	2.000000	3.600000	1.674481	-0.178359
4	1.674481	-0.178359	2.000000	3.600000	1.689847	-0.072757
5	1.689847	-0.072757	2.000000	3.600000	1.695991	-0.029016
6	1.695991	-0.029016	2.000000	3.600000	1.698422	-0.011467
7	1.698422	-0.011467	2.000000	3.600000	1.699380	-0.004515

Therefore the solution by regula falsi method after 7 iterations is 1.699379696

i	0	1
	2	3
	4	

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z0	1.0000000000	2.0000000000
	3.0000000000	1.8923871014
	1.7819709257	
z1	2.0000000000	3.0000000000
	1.8923871014	1.7819709257
	1.6357773012	
z2	3.0000000000	1.8923871014
	1.7819709257	1.6357773012
	1.7116940948	

f0	-2.1000000000 71.5000000000 0.2631537814	3.6000000000 1.9288129429
f1	3.6000000000 1.9288129429 -0.8234803946	71.5000000000 0.2631537814
f2	71.5000000000 0.2631537814 0.0868318462	1.9288129429 -0.8234803946
li	1.0000000000 0.0996884163 -0.8008961001	-1.1076128986 0.5385103021
di	2.0000000000 1.0996884163 0.1991038999	-0.1076128986 1.5385103021
gi	198.0000000000 -2.4578861956 2.0544384878	1.2445512333 -0.9247265103
li+1	-1.1076128986 0.5385103021 -0.0128389039	0.0996884163 -0.8008961001
hi	1.0000000000 -0.1104161757 0.0759167936	-1.1076128986 -0.1461936245
hi+1	-1.1076128986 -0.1461936245 -0.0110105673	-0.1104161757 0.0759167936
zi+1	1.8923871014 1.6357773012 1.7006835275	1.7819709257 1.7116940948
D+	258.2129554166 -0.8262059185 4.0509097381	1.2445512333 1.0673282131
D_	137.7870445834 -4.0895664727 0.0579672376	1.2445512333 -2.9167812337

At the end of the 4th iteration by mullers method, the root of the equation is 1.7006835275