Lab Assignment 23/08/18

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1.

	Newton Method			Modified Newton Method	
	p	alpha		p	alpha
0	-1	0.836497		-1	1.966042
1	-0.418023	0.927523		-0.119955	inf
2	-0.194492	0.965516		-0.002304	-nan
3	-0.094095	0.983437		-5.3E-05	-nan
4	-0.04631	0.989483			
5	-0.022977	0.993656			
6	-0.011446	1.004216			
7	-0.005707	1.071132			
8	-0.002837	0.974954			
9	-0.001406	0.127252			

2.

Fixed point Iteration Method

	p	alpha			p	alpha
0	0.785398	1.03519		15	0.73896	0.999731
1	0.707107	0.975777		16	0.739169	0.998434
2	0.760245	1.016063		17	0.739028	0.998356
3	0.724667	0.989075		18	0.739123	0.999758
4	0.74872	1.007304		19	0.739059	0.99863
5	0.732561	0.995048		20	0.739103	0.99657
6	0.743464	1.003316		21	0.739073	1.011777
7	0.736128	0.997719		22	0.739093	0.997423
8	0.741074	1.001554		23	0.73908	1.000248
9	0.737744	0.999104		24	0.739089	1.043559
10	0.739988	1.000715		25	0.739083	0.982124
11	0.738477	0.999535		26	0.739087	1
12	0.739495	1.000108		27	0.739084	1.062441
13	0.738809	0.999628		28	0.739086	1.127036
14	0.739271	1.00075		29	0.739085	0.968066

3.

	Newton Method			Secant Method	
	p	alpha		p	alpha
0	-2.5	1.675153		-2	0.542987
1	-3.066667	2.013558		-3	2.945325
2	-2.900876	1.748317		-2.75	1.060439
3	-2.87972	inf		-2.867769	2.023722
4	-2.879385	-nan		-2.880597	0.79535
5	-2.879385	-nan		-2.879375	inf
6				-2.879385	nan
7				-2.879385	nan