	α	start	convergence time	final guess
0	0.01	1.0	100	0.3323366923926806
1	0.02	1.0	100	0.24119415115009837
2	0.03	1.0	97	0.20146846304616808
3	0.04	1.0	89	0.18252923619780276
4	0.05	1.0	83	0.1691984331910481
5	0.1	1.0	66	0.13379629115760108
6	0.499999999999999	1.0	55	-0.07827643923095963
7	0.5	1.0	100	-1.0
8	0.78125000000000009	0.8	29	$\inf$
9	0.781249999999999999	0.8	24	0.02474194758833489
10	0.8	0.7	33	-0.06609857197723801