Table 1: Function Comparison for Various Degrees of Polynomial

Degree of Polynomial (n)	x_0	$f_1(x_0)$	Time for f_1 (seconds)	$f_2(x_0)$	Time for f_2 (seconds)
100	0.0	0.7922700322199837	1.834e-6	0.7922700322199837	55.009438375
100	0.5	1.5744398592242828	1.083e-6	1.5744398592242836	54.784277083
100	1.0	48.71863182558908	1.833e-6	4.9999774433345485e8	54.441289459
1000	0.0	0.7922700322199837	3.542e-6	0.7922700322199837	54.400694541
1000	0.5	1.5744398592242828	3.917e-6	1.5744398592242836	54.610537083
1000	1.0	498.5254246318188	3.333e-6	4.9999774433345485e8	55.795436917
10000	0.0	0.7922700322199837	2.7916e-5	0.7922700322199837	54.979837625
10000	0.5	1.5744398592242828	2.2542e-5	1.5744398592242836	55.29100875
10000	1.0	5020.255168470453	2.275e-5	4.9999774433345485e8	55.444835792
100000	0.0	0.7922700322199837	0.000218458	0.7922700322199837	55.163876417
100000	0.5	1.5744398592242828	0.000242917	1.5744398592242836	54.503699458
100000	1.0	50073.37837880378	0.000242791	4.9999774433345485e8	55.70697275
1000000	0.0	0.7922700322199837	0.002024833	0.7922700322199837	55.72016025
1000000	0.5	1.5744398592242828	0.002081333	1.5744398592242836	55.194789708
1000000	1.0	500667.09477746306	0.002032	4.9999774433345485e8	54.893628958
10000000	0.0	0.7922700322199837	0.019907375	0.7922700322199837	54.87693175
10000000	0.5	1.5744398592242828	0.019515541	1.5744398592242836	55.331322708
10000000	1.0	5.000183799199668e6	0.019550459	4.9999774433345485e8	54.750354375
100000000	0.0	0.7922700322199837	0.195646833	0.7922700322199837	54.770078375
100000000	0.5	1.5744398592242828	0.195308208	1.5744398592242836	54.911006333
100000000	1.0	4.999786557413649e7	0.203876542	4.9999774433345485e8	55.120290542
1000000000	0.0	0.7922700322199837	1.947029	0.7922700322199837	54.955800959
1000000000	0.5	1.5744398592242828	1.962979875	1.5744398592242836	55.072285083
1000000000	1.0	4.9999774433409894e8	2.111018459	4.9999774433345485e8	55.204755667