

### Gradient Descent (p=1.2)

Iteration Number	Gradient Norm	Function Value
0	11.208240058911064	64.33623036000427
1	13.182079027850897	43.995899972045315
2	8.7428775943619	24.213167492450392
3	4.711456849447196	18.52993256004202
4	4.50179751034553	17.06558173092728
5	2.5650851025558086	16.095120784853307
6	1.7726236658517505	15.705392792341254
7	1.4612495085854595	15.541628072603716
8	1.2806281993912456	15.443102071290458
9	0.8563120002638069	15.375630909555412
10	0.807298473001589	15.340781907647184
11	0.5751415069468772	15.315218069594073
12	0.42012016684216935	15.299512674327445
13	0.4102699212255736	15.290538414085974
14	0.30393274291576805	15.283666255369674
15	0.2309364596744388	15.279441758963323
16	0.2328516744293254	15.276930528235978
17	0.17609184538669978	15.274945882011071
18	0.13407651398366224	15.273661927030979
19	0.10338480597230898	15.272837578073007
20	0.10551312676402584	15.272346615060405
21	0.0804789296706539	15.271949006464752
22	0.06171090323098455	15.271690890033863
23	0.04771733455335079	15.271523330230679
24	0.049347768720995944	15.271426875413926
25	0.03768733579981557	15.271344396788372
26	0.02891910547773627	15.271291025074976
27	0.02233652331056084	15.271256336787902
28	0.01735102220332262	15.271233491779805
29	0.01784134634708597	15.27121995327948
30	0.013670093353557348	15.271208750926727
31	0.01053266864436091	15.271201489757317
32	0.008159302777574503	15.271196728603071
33	0.006359083728560445	15.271193584844589
34	0.00650297488285792	15.271191672088777
35	0.004995860124131566	15.271190137491155
36	0.0038577959384004335	15.271189136541906
37	0.0029960033857848946	15.271188478326478
38	0.0031063591369356307	15.271188097574644
39	0.002379398142151332	15.271187770522298

40	0.0018314456755543266	15.271187558437415
41	0.0014173100563097114	15.27118741964422
42	0.0011030813379144695	15.271187328012378
43	0.0011369068238284074	15.271187273615729
44	0.00087238775721952	15.27118722834051
45	0.0006728423907852711	15.271187198869063
46	0.0005218038395608405	15.271187179503926
47	0.0004070503481822989	15.271187166675075
48	0.0004167928955001624	15.271187158858082
49	0.00032044075134533254	15.27118715255593
50	0.00024766770395969736	15.27118714843588
51	0.00019251623420110992	15.27118714571822
52	0.000199642825824025	15.27118714413839
53	0.0001530414484370621	15.271187142781294
54	0.00011791038760146187	15.271187141898825
55	9.134538776732743e-05	15.27118714131942