

Epoch: 100, LR = 0.2

1/100, error=0.1687439915036304  
2/100, error=0.0981747272624023  
3/100, error=0.07612899934209005  
4/100, error=0.06778066946347765  
5/100, error=0.06382279282147282  
6/100, error=0.0612514885073436  
7/100, error=0.058868883043864596  
8/100, error=0.05727016425712763  
9/100, error=0.05626049920915078  
10/100, error=0.05497639966050881  
11/100, error=0.05410850917229855  
12/100, error=0.053224531530398314  
13/100, error=0.052415515745220534  
14/100, error=0.05192097911126593  
15/100, error=0.051201977398592835  
16/100, error=0.05066832952094079  
17/100, error=0.04994524724732169  
18/100, error=0.049446981023900605  
19/100, error=0.049005365794150435  
20/100, error=0.048502457088317553  
21/100, error=0.04814045233306703  
22/100, error=0.047786672108952384  
23/100, error=0.0474933122648902  
24/100, error=0.047272204241007885  
25/100, error=0.04697245473567724  
26/100, error=0.046737039061983385  
27/100, error=0.04641414896019329  
28/100, error=0.04618211169775169  
29/100, error=0.04595569572987339  
30/100, error=0.04575365912700157  
31/100, error=0.045550501185987524

32/100, error=0.04534533204296453  
33/100, error=0.045201853281230484  
34/100, error=0.04500997975389889  
35/100, error=0.04483265376807576  
36/100, error=0.04467405953458944  
37/100, error=0.04451797257041932  
38/100, error=0.04440939020396255  
39/100, error=0.044217578644479304  
40/100, error=0.044077686548823304  
41/100, error=0.043977041060047226  
42/100, error=0.04386008287530711  
43/100, error=0.043670274465870185  
44/100, error=0.04355447233864686  
45/100, error=0.04343359312721448  
46/100, error=0.043276315121759716  
47/100, error=0.04314136055895047  
48/100, error=0.04303208915477313  
49/100, error=0.0429222762803551  
50/100, error=0.042849730605221924  
51/100, error=0.042740819870898  
52/100, error=0.04260412828900302  
53/100, error=0.04252361810222598  
54/100, error=0.042404641338748966  
55/100, error=0.04228313319456048  
56/100, error=0.042186836775609714  
57/100, error=0.0420933419618039  
58/100, error=0.041904453323770456  
59/100, error=0.041826575290186185  
60/100, error=0.041680162920292065  
61/100, error=0.04157229374697515  
62/100, error=0.041431318652253774  
63/100, error=0.04135489070295827

64/100, error=0.04122231705146334  
65/100, error=0.04111952505997664  
66/100, error=0.04106572621831889  
67/100, error=0.040902916337299554  
68/100, error=0.04081538977293352  
69/100, error=0.04077047716785492  
70/100, error=0.04064883441161648  
71/100, error=0.04054632982136342  
72/100, error=0.040464576475600575  
73/100, error=0.040341574721708684  
74/100, error=0.0401872355022697  
75/100, error=0.040100468870120407  
76/100, error=0.03997227305221186  
77/100, error=0.03987821517847821  
78/100, error=0.03981259292736375  
79/100, error=0.0397094622055518  
80/100, error=0.03961520362061195  
81/100, error=0.03956896250873848  
82/100, error=0.03949696240005261  
83/100, error=0.0393941078856643  
84/100, error=0.03933389471127791  
85/100, error=0.03928990227277161  
86/100, error=0.03920529589978884  
87/100, error=0.03916539596004634  
88/100, error=0.039101391200400376  
89/100, error=0.03904179338116934  
90/100, error=0.03898753747509524  
91/100, error=0.038965711852648896  
92/100, error=0.03894134914254288  
93/100, error=0.03883326369164301  
94/100, error=0.03883154625634785  
95/100, error=0.03875149142648015

96/100, error=0.038712586820975455

97/100, error=0.03867399406170556

98/100, error=0.03860440657216668

99/100, error=0.038555890652516

100/100, error=0.03850887133251513

0.8938

Epoch: 100, LR = 0.1

1/100, error=0.1741681916668327  
2/100, error=0.07166572624039112  
3/100, error=0.06244313591285799  
4/100, error=0.057481684901101684  
5/100, error=0.05388506672774677  
6/100, error=0.04925342825870636  
7/100, error=0.043589524144848846  
8/100, error=0.03952358595991194  
9/100, error=0.03741663530691402  
10/100, error=0.03575267748615347  
11/100, error=0.034443460572713615  
12/100, error=0.033470016628419  
13/100, error=0.03262345510516338  
14/100, error=0.03187307563559611  
15/100, error=0.03125143430990928  
16/100, error=0.030727255220316413  
17/100, error=0.030275338053470373  
18/100, error=0.02984754822638652  
19/100, error=0.029455486996838646  
20/100, error=0.029045961001404098  
21/100, error=0.02866001069758781  
22/100, error=0.0282333251675119  
23/100, error=0.02767688763126987  
24/100, error=0.027139013199816212  
25/100, error=0.026735660719982013  
26/100, error=0.026408363068854752  
27/100, error=0.026107505129060418  
28/100, error=0.025835545222201522  
29/100, error=0.02559385338037143  
30/100, error=0.025379109794670764

31/100, error=0.025170140652961484  
32/100, error=0.024973538413372725  
33/100, error=0.024798607187905122  
34/100, error=0.024638576878653933  
35/100, error=0.024484306353876408  
36/100, error=0.024338094516616143  
37/100, error=0.02420442994723252  
38/100, error=0.024082728408236526  
39/100, error=0.02396802108625595  
40/100, error=0.02386057354165748  
41/100, error=0.02375549903052588  
42/100, error=0.0236526368114961  
43/100, error=0.023552484453262967  
44/100, error=0.023454444005295904  
45/100, error=0.02335846130849879  
46/100, error=0.0232648189134103  
47/100, error=0.023172821465819424  
48/100, error=0.0230842881636647  
49/100, error=0.022995352369973732  
50/100, error=0.022909832194749263  
51/100, error=0.022828735292959545  
52/100, error=0.022748876887992042  
53/100, error=0.022669270689311762  
54/100, error=0.02258889958496657  
55/100, error=0.022507745633267174  
56/100, error=0.02242947448828354  
57/100, error=0.022354887273547126  
58/100, error=0.0222820640393543  
59/100, error=0.022208540827032004  
60/100, error=0.022135152052443763  
61/100, error=0.02206333820050091  
62/100, error=0.02199172104228446

63/100, error=0.021919633067105124  
64/100, error=0.021845803670034265  
65/100, error=0.02177330658562531  
66/100, error=0.021703527304459944  
67/100, error=0.021634857339473425  
68/100, error=0.021557467903179223  
69/100, error=0.021472382385902756  
70/100, error=0.02140109777428312  
71/100, error=0.021332102844109652  
72/100, error=0.021266158764361418  
73/100, error=0.021205307482756064  
74/100, error=0.021147664842148268  
75/100, error=0.0210939278089765  
76/100, error=0.021039521132158526  
77/100, error=0.020985321067586226  
78/100, error=0.020928130532960783  
79/100, error=0.020869500171623125  
80/100, error=0.020808092387547956  
81/100, error=0.020744283679770513  
82/100, error=0.020689459028538398  
83/100, error=0.02063956363227565  
84/100, error=0.02059509575307158  
85/100, error=0.020551500027222436  
86/100, error=0.020506549551939094  
87/100, error=0.020459188363478355  
88/100, error=0.020410769698920805  
89/100, error=0.02036254782228254  
90/100, error=0.020316252970408195  
91/100, error=0.020269566547101013  
92/100, error=0.02022536504372192  
93/100, error=0.02018237614464298  
94/100, error=0.020141394115516752

95/100, error=0.020100999709158424

96/100, error=0.020061992144023363

97/100, error=0.020022013030075274

98/100, error=0.019982688649906

99/100, error=0.019942811948923892

100/100, error=0.01990484044043766

0.9066



Epoch: 100, LR = 0.05

1/100, error=0.21951291737433615  
2/100, error=0.06653282536353976  
3/100, error=0.05561010853435459  
4/100, error=0.04847031610779964  
5/100, error=0.043726846610066  
6/100, error=0.04041957183372343  
7/100, error=0.037935914616090756  
8/100, error=0.035991175275499436  
9/100, error=0.034422474665170816  
10/100, error=0.033144559150893926  
11/100, error=0.03207872561958357  
12/100, error=0.03118266996330883  
13/100, error=0.03039792536194592  
14/100, error=0.029715125771253986  
15/100, error=0.029083217126476157  
16/100, error=0.028477876326391306  
17/100, error=0.0279073617800752  
18/100, error=0.027377138257415844  
19/100, error=0.026893587332131853  
20/100, error=0.026440267865241222  
21/100, error=0.02601914636453656  
22/100, error=0.02564763027118084  
23/100, error=0.025316979984917498  
24/100, error=0.025015537572938056  
25/100, error=0.02473688023115865  
26/100, error=0.024472292631697416  
27/100, error=0.024209852607899655  
28/100, error=0.023959976285957703  
29/100, error=0.023728997530298397  
30/100, error=0.023512466419051584

31/100, error=0.023302725873352418  
32/100, error=0.023106464791672946  
33/100, error=0.02292544354363087  
34/100, error=0.022757980869157333  
35/100, error=0.022599091847425035  
36/100, error=0.022444614438761175  
37/100, error=0.022296297628513508  
38/100, error=0.02215447213716665  
39/100, error=0.022019010392166007  
40/100, error=0.02188776193931899  
41/100, error=0.021758772434343838  
42/100, error=0.02163331115457467  
43/100, error=0.02151345164539008  
44/100, error=0.021397292243473563  
45/100, error=0.021285262681789385  
46/100, error=0.021179592161095856  
47/100, error=0.02107851784581122  
48/100, error=0.020979775534337185  
49/100, error=0.020883309047154883  
50/100, error=0.02079017339263543  
51/100, error=0.020700435241285797  
52/100, error=0.020614043204697046  
53/100, error=0.020530743555583063  
54/100, error=0.020450155951488157  
55/100, error=0.02037181278437179  
56/100, error=0.02029497299934073  
57/100, error=0.02021918788082  
58/100, error=0.020144414527698915  
59/100, error=0.02007073771513229  
60/100, error=0.019998346776018507  
61/100, error=0.01992757038371935  
62/100, error=0.019858553224237217

63/100, error=0.019790988478473173  
64/100, error=0.019724607072834664  
65/100, error=0.019659324805691214  
66/100, error=0.01959527790402762  
67/100, error=0.019532732314749904  
68/100, error=0.019471527584979543  
69/100, error=0.019411533480259018  
70/100, error=0.019352942524985848  
71/100, error=0.019295656101865975  
72/100, error=0.01923942483155397  
73/100, error=0.019184288615344974  
74/100, error=0.019130663845793885  
75/100, error=0.019078862392817225  
76/100, error=0.019028813468353063  
77/100, error=0.01898024168451372  
78/100, error=0.018932811534205663  
79/100, error=0.01888621810672413  
80/100, error=0.018840246686738865  
81/100, error=0.01879495318572254  
82/100, error=0.01875045680645656  
83/100, error=0.01870681223281686  
84/100, error=0.01866409812924915  
85/100, error=0.01862222725053265  
86/100, error=0.01858099204155838  
87/100, error=0.018540277608910766  
88/100, error=0.01850010947972218  
89/100, error=0.018460463844355134  
90/100, error=0.018421286339193675  
91/100, error=0.018382664782896976  
92/100, error=0.018344824707134645  
93/100, error=0.018307940242733238  
94/100, error=0.018272038594973904

95/100, error=0.01823700143161376  
96/100, error=0.01820252911877087  
97/100, error=0.01816816694179144  
98/100, error=0.018134238373020178  
99/100, error=0.01810170875511011  
100/100, error=0.01807048547227575  
0.9038

Epoch: 20, LR = 0.05

1/20, error=0.1499204273216639  
2/20, error=0.06880422282375744  
3/20, error=0.05520789124490969  
4/20, error=0.04883334505386429  
5/20, error=0.04357132334897893  
6/20, error=0.03788735423762563  
7/20, error=0.03477691630001237  
8/20, error=0.032824799871339606  
9/20, error=0.03151466995490315  
10/20, error=0.030524242981506102  
11/20, error=0.02972744517624246  
12/20, error=0.02900609882391069  
13/20, error=0.028414054562742194  
14/20, error=0.027904009267618466  
15/20, error=0.02744274559093028  
16/20, error=0.02705772294926452  
17/20, error=0.026677604620254664  
18/20, error=0.02632370435889696  
19/20, error=0.026004366638366645  
20/20, error=0.02570754753936498  
0.8919

Epoch: 20, LR = 0.1

1/20, error=0.17023080423736878  
2/20, error=0.09314574574667496  
3/20, error=0.0806119866285109  
4/20, error=0.0734490927235931  
5/20, error=0.06596849522488862  
6/20, error=0.060159469923195034  
7/20, error=0.05661050897645079  
8/20, error=0.0542186621370032  
9/20, error=0.05117264822088357  
10/20, error=0.04974481184910943  
11/20, error=0.04860039480834134  
12/20, error=0.047660450210067755  
13/20, error=0.04693570715906016  
14/20, error=0.046286176323457696  
15/20, error=0.04561408893148628  
16/20, error=0.04501397080620548  
17/20, error=0.044433184984667126  
18/20, error=0.04400254458849107  
19/20, error=0.04360232460189172  
20/20, error=0.0432622258296217  
0.8992

Epoch: 20, LR = 0.2

1/20, error=0.20733904783965754  
2/20, error=0.06743001249369315  
3/20, error=0.0585097730165663  
4/20, error=0.05243724694590398  
5/20, error=0.047271139866970895  
6/20, error=0.04264956317476717  
7/20, error=0.0393173404908158  
8/20, error=0.03665804509327732  
9/20, error=0.034406100481411614  
10/20, error=0.03240829994819114  
11/20, error=0.03079464897564659  
12/20, error=0.029528250804046058  
13/20, error=0.028512583351824813  
14/20, error=0.027720689160667916  
15/20, error=0.02706915584079306  
16/20, error=0.02650437949723786  
17/20, error=0.02598812046969705  
18/20, error=0.02552586107949128  
19/20, error=0.025102147542136792  
20/20, error=0.02471913469301402  
0.8701