MOMENTUM = 0.5 & LEARNING = 0.3 \* 1/(1 + 0.01 \* epoch);

COMPLETE NETWORK

Random number generator seed: 102194

277 images in training set

139 images in test1 set

208 images in test2 set

creating net

Training underway (going to 100 epochs)

Will save network every 100 epochs

0 0.0

epoch: 0% | learning rate: 0.300000

result on trainlist:

4.69314% 264

result on testlist:

1.43885% 137

epoch: 1% | learning rate: 0.297030

result on trainlist:

8.66426% 253

result on testlist:

5.7554% 131

epoch: 2% | learning rate: 0.294118

result on trainlist:

10.1083% 249

result on testlist:

6.47482% 130

epoch: 3% | learning rate: 0.291262

result on trainlist:

12.6354% 242

result on testlist:

9.35252% 126

epoch: 4% | learning rate: 0.288462

result on trainlist:

20.9386% 219

result on testlist:

16.5468% 116

epoch: 5% | learning rate: 0.285714

result on trainlist:

25.2708% 207

result on testlist:

19.4245% 112

epoch: 6% | learning rate: 0.283019

result on trainlist:

27.7978% 200

result on testlist:

22.3022% 108

epoch: 7% | learning rate: 0.280374

result on trainlist:

29.9639% 194

result on testlist:

26.6187% 102

epoch: 8% | learning rate: 0.277778

result on trainlist:

41.5162% 162

result on testlist:

36.6906% 88

epoch: 9% | learning rate: 0.275229

result on trainlist:

48.3755% 143

result on testlist:

46.7626% 74

epoch: 10% | learning rate: 0.272727

result on trainlist:

35.0181% 180

result on testlist:

38.8489% 85

epoch: 11% | learning rate: 0.270270

result on trainlist:

50.1805% 138

result on testlist:

51.7986% 67

epoch: 12% | learning rate: 0.267857

result on trainlist:

59.2058% 113

result on testlist:

56.1151% 61

epoch: 13% | learning rate: 0.265487

result on trainlist:

59.5668% 112

result on testlist:

55.3957% 62

epoch: 14% | learning rate: 0.263158

result on trainlist:

63.5379% 101

result on testlist:

58.9928% 57

epoch: 15% | learning rate: 0.260870

result on trainlist:

49.8195% 139

result on testlist:

48.2014% 72

epoch: 16% | learning rate: 0.258621

result on trainlist:

63.1769% 102

result on testlist:

56.8345% 60

epoch: 17% | learning rate: 0.256410

result on trainlist:

55.5957% 123

result on testlist:

56.8345% 60

epoch: 18% | learning rate: 0.254237

result on trainlist:

49.8195% 139

result on testlist:

48.9209% 71

epoch: 19% | learning rate: 0.252101

result on trainlist:

71.1191% 80

result on testlist:

69.7842% 42

epoch: 20% | learning rate: 0.250000

result on trainlist:

72.5632% 76

result on testlist:

69.0647% 43

epoch: 21% | learning rate: 0.247934

result on trainlist:

76.5343% 65

result on testlist:

74.1007% 36

epoch: 22% | learning rate: 0.245902

result on trainlist:

73.6462% 73

result on testlist:

71.223% 40

epoch: 23% | learning rate: 0.243902

result on trainlist:

74.7292% 70

result on testlist:

71.9424% 39

epoch: 24% | learning rate: 0.241935

result on trainlist:

76.1733% 66

result on testlist:

72.6619% 38

epoch: 25% | learning rate: 0.240000

result on trainlist:

75.8123% 67

result on testlist:

76.259% 33

epoch: 26% | learning rate: 0.238095

result on trainlist:

76.5343% 65

result on testlist:

75.5396% 34

epoch: 27% | learning rate: 0.236220

result on trainlist:

83.3935% 46

result on testlist:

79.8561% 28

epoch: 28% | learning rate: 0.234375

result on trainlist:

83.7545% 45

result on testlist:

79.8561% 28

epoch: 29% | learning rate: 0.232558

result on trainlist:

83.0325% 47

result on testlist:

80.5755% 27

epoch: 30% | learning rate: 0.230769

result on trainlist:

82.3105% 49

result on testlist:

78.4173% 30

epoch: 31% | learning rate: 0.229008

result on trainlist:

82.6715% 48

result on testlist:

79.8561% 28

epoch: 32% | learning rate: 0.227273

result on trainlist:

83.3935% 46

result on testlist:

79.1367% 29

epoch: 33% | learning rate: 0.225564

result on trainlist:

83.3935% 46

result on testlist:

79.8561% 28

epoch: 34% | learning rate: 0.223881

result on trainlist:

83.7545% 45

result on testlist:

78.4173% 30

epoch: 35% | learning rate: 0.222222

result on trainlist:

83.3935% 46

result on testlist:

79.1367% 29

epoch: 36% | learning rate: 0.220588

result on trainlist:

83.0325% 47

result on testlist:

79.1367% 29

epoch: 37% | learning rate: 0.218978

result on trainlist:

83.0325% 47

result on testlist:

79.8561% 28

epoch: 38% | learning rate: 0.217391

result on trainlist:

84.1155% 44

result on testlist:

80.5755% 27

epoch: 39% | learning rate: 0.215827

result on trainlist:

84.1155% 44

result on testlist:

81.295% 26

epoch: 40% | learning rate: 0.214286

result on trainlist:

84.1155% 44

result on testlist:

78.4173% 30

epoch: 41% | learning rate: 0.212766

result on trainlist:

84.1155% 44

result on testlist:

79.1367% 29

epoch: 42% | learning rate: 0.211268

result on trainlist:

84.1155% 44

result on testlist:

79.1367% 29

epoch: 43% | learning rate: 0.209790

result on trainlist:

84.1155% 44

result on testlist:

78.4173% 30

epoch: 44% | learning rate: 0.208333

result on trainlist:

81.9495% 50

result on testlist:

76.259% 33

epoch: 45% | learning rate: 0.206897

result on trainlist:

83.3935% 46

result on testlist:

79.1367% 29

epoch: 46% | learning rate: 0.205479

result on trainlist:

74.0072% 72

result on testlist:

72.6619% 38

epoch: 47% | learning rate: 0.204082

result on trainlist:

84.1155% 44

result on testlist:

81.295% 26

epoch: 48% | learning rate: 0.202703

result on trainlist:

83.3935% 46

result on testlist:

81.295% 26

epoch: 49% | learning rate: 0.201342

result on trainlist:

83.7545% 45

result on testlist:

81.295% 26

epoch: 50% | learning rate: 0.200000

result on trainlist:

84.4765% 43

result on testlist:

81.295% 26

epoch: 51% | learning rate: 0.198675

result on trainlist:

84.4765% 43

result on testlist:

82.0144% 25

epoch: 52% | learning rate: 0.197368

result on trainlist:

84.8375% 42

result on testlist:

82.0144% 25

epoch: 53% | learning rate: 0.196078

result on trainlist:

84.8375% 42

result on testlist:

82.0144% 25

epoch: 54% | learning rate: 0.194805

result on trainlist:

84.8375% 42

result on testlist:

82.0144% 25

epoch: 55% | learning rate: 0.193548

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 56% | learning rate: 0.192308

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 57% | learning rate: 0.191083

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 58% | learning rate: 0.189873

result on trainlist:

84.8375% 42

result on testlist:

82.7338% 24

epoch: 59% | learning rate: 0.188679

result on trainlist:

85.1986% 41

result on testlist:

82.7338% 24

epoch: 60% | learning rate: 0.187500

result on trainlist:

85.5596% 40

result on testlist:

84.1727% 22

epoch: 61% | learning rate: 0.186335

result on trainlist:

85.5596% 40

result on testlist:

82.7338% 24

epoch: 62% | learning rate: 0.185185

result on trainlist:

85.5596% 40

result on testlist:

82.7338% 24

epoch: 63% | learning rate: 0.184049

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 64% | learning rate: 0.182927

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 65% | learning rate: 0.181818

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 66% | learning rate: 0.180723

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 67% | learning rate: 0.179641

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 68% | learning rate: 0.178571

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 69% | learning rate: 0.177515

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 70% | learning rate: 0.176471

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 71% | learning rate: 0.175439

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 72% | learning rate: 0.174419

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 73% | learning rate: 0.173410

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 74% | learning rate: 0.172414

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 75% | learning rate: 0.171429

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 76% | learning rate: 0.170455

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 77% | learning rate: 0.169492

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 78% | learning rate: 0.168539

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 79% | learning rate: 0.167598

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 80% | learning rate: 0.166667

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 81% | learning rate: 0.165746

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 82% | learning rate: 0.164835

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 83% | learning rate: 0.163934

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 84% | learning rate: 0.163043

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 85% | learning rate: 0.162162

result on trainlist:

85.5596% 40

result on testlist:

82.0144% 25

epoch: 86% | learning rate: 0.161290

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 87% | learning rate: 0.160428

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 88% | learning rate: 0.159574

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 89% | learning rate: 0.158730

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 90% | learning rate: 0.157895

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 91% | learning rate: 0.157068

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 92% | learning rate: 0.156250

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 93% | learning rate: 0.155440

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 94% | learning rate: 0.154639

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 95% | learning rate: 0.153846

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 96% | learning rate: 0.153061

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 97% | learning rate: 0.152284

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 98% | learning rate: 0.151515

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 99% | learning rate: 0.150754

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

Saving 15360x20x20 network to 'network.net'

epoch: 100% | learning rate: 0.150000

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 101% | learning rate: 0.149254

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 102% | learning rate: 0.148515

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 103% | learning rate: 0.147783

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 104% | learning rate: 0.147059

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 105% | learning rate: 0.146341

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 106% | learning rate: 0.145631

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 107% | learning rate: 0.144928

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 108% | learning rate: 0.144231

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 109% | learning rate: 0.143541

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 110% | learning rate: 0.142857

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 111% | learning rate: 0.142180

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 112% | learning rate: 0.141509

result on trainlist:

85.5596% 40

result on testlist:

81.295% 26

epoch: 113% | learning rate: 0.140845

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 114% | learning rate: 0.140187

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 115% | learning rate: 0.139535

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 116% | learning rate: 0.138889

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 117% | learning rate: 0.138249

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 118% | learning rate: 0.137615

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 119% | learning rate: 0.136986

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 120% | learning rate: 0.136364

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 121% | learning rate: 0.135747

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 122% | learning rate: 0.135135

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 123% | learning rate: 0.134529

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 124% | learning rate: 0.133929

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 125% | learning rate: 0.133333

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 126% | learning rate: 0.132743

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 127% | learning rate: 0.132159

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 128% | learning rate: 0.131579

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 129% | learning rate: 0.131004

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 130% | learning rate: 0.130435

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 131% | learning rate: 0.129870

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 132% | learning rate: 0.129310

result on trainlist:

85.5596% 40

result on testlist:

78.4173% 30

epoch: 133% | learning rate: 0.128755

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 134% | learning rate: 0.128205

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 135% | learning rate: 0.127660

result on trainlist:

85.5596% 40

result on testlist:

78.4173% 30

epoch: 136% | learning rate: 0.127119

result on trainlist:

85.5596% 40

result on testlist:

77.6978% 31

epoch: 137% | learning rate: 0.126582

result on trainlist:

85.5596% 40

result on testlist:

77.6978% 31

epoch: 138% | learning rate: 0.126050

result on trainlist:

85.5596% 40

result on testlist:

76.9784% 32

epoch: 139% | learning rate: 0.125523

result on trainlist:

85.5596% 40

result on testlist:

78.4173% 30

epoch: 140% | learning rate: 0.125000

result on trainlist:

85.5596% 40

result on testlist:

77.6978% 31

epoch: 141% | learning rate: 0.124481

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 142% | learning rate: 0.123967

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 143% | learning rate: 0.123457

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 144% | learning rate: 0.122951

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 145% | learning rate: 0.122449

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 146% | learning rate: 0.121951

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 147% | learning rate: 0.121457

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 148% | learning rate: 0.120968

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 149% | learning rate: 0.120482

result on trainlist:

85.5596% 40

result on testlist:

78.4173% 30

epoch: 150% | learning rate: 0.120000

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 151% | learning rate: 0.119522

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 152% | learning rate: 0.119048

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 153% | learning rate: 0.118577

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 154% | learning rate: 0.118110

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 155% | learning rate: 0.117647

result on trainlist:

85.5596% 40

result on testlist:

80.5755% 27

epoch: 156% | learning rate: 0.117188

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 157% | learning rate: 0.116732

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 158% | learning rate: 0.116279

result on trainlist:

85.5596% 40

result on testlist:

79.8561% 28

epoch: 159% | learning rate: 0.115830

result on trainlist:

85.5596% 40

result on testlist:

79.1367% 29

epoch: 160% | learning rate: 0.115385

result on trainlist:

85.5596% 40

result on testlist:

77.6978% 31

epoch: 161% | learning rate: 0.114943

çresult on trainlist:

85.5596% 40

result on testlist:

79.8561% 28