

Joshua Reno

Question 5:

	Max	Avg	Standard Deviation
Pen	0.903659233848	0.902115494568	0.00144191197403
Car	0.98	0.972	0.006

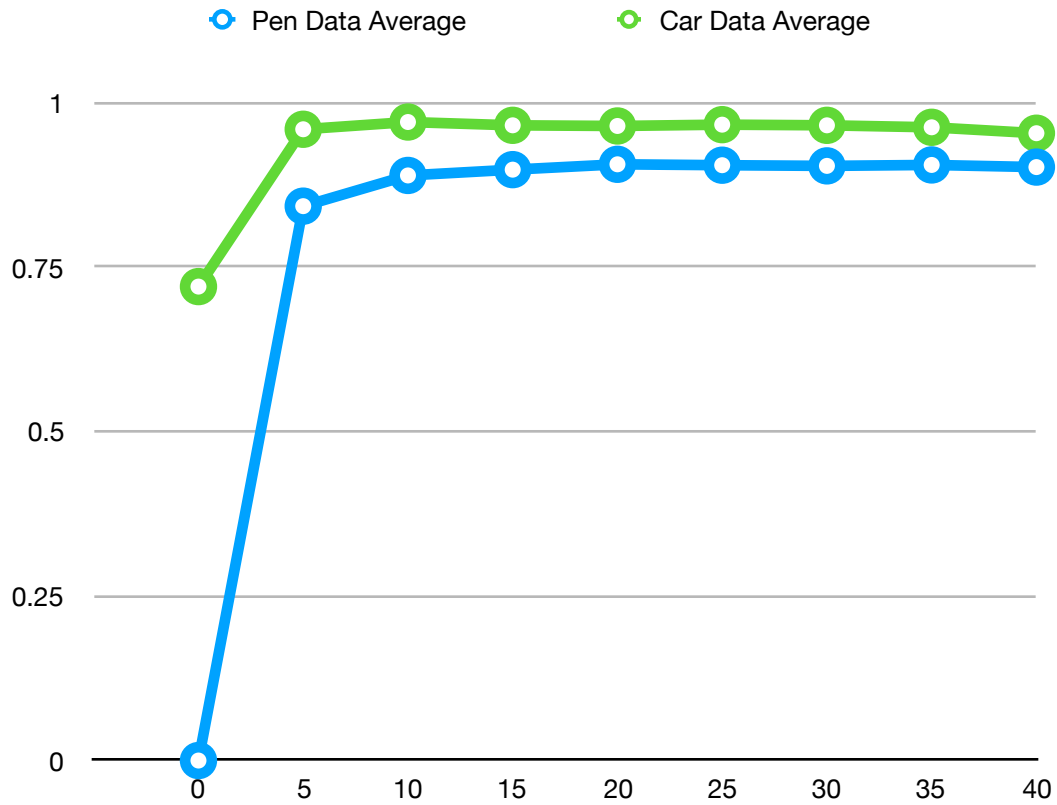
Question 6:

Pen:

Perceptrons	Avg	Max	Standard Deviation
0	0.0	0.0	0.0
5	0.842195540309	0.853916523728	0.00751374339668
10	0.88885077187	0.901658090337	0.0107322595099
15	0.897655803316	0.907661520869	0.00675058760121
20	0.905774728416	0.909090909091	0.00190146245264
25	0.904402515723	0.912807318468	0.00501256919252
30	0.903373356204	0.905374499714	0.00170570999316
35	0.904802744425	0.90708976558	0.00202146020922
40	0.90154373928	0.908233276158	0.00689101524069

Car:

Perceptrons	Avg	Max	Standard Deviation
0	0.72	0.72	0.0
5	0.959	0.97	0.00583095189485
10	0.97	0.975	0.00547722557505
15	0.965	0.97	0.004472135955
20	0.964	0.975	0.00583095189485
25	0.966	0.97	0.00374165738677
30	0.965	0.975	0.00707106781187
35	0.962	0.965	0.00244948974278
40	0.953	0.96	0.014



Analysis:

For both the car data and the pen data, the accuracy dramatically increases from 0 to 5 perceptrons and stabilizes immediately after that. The car average falls only slightly after 5 perceptrons are used and the pen average increases only slightly after 5 perceptrons are used.