

QUESTION 5

ACCURACY	Maximum	Average	Standard Deviation
Pen Data	0.905660377358	0.901715265866	0.00311803275116
Car Data	0.99	0.986	0.00374165738677

QUESTION 6

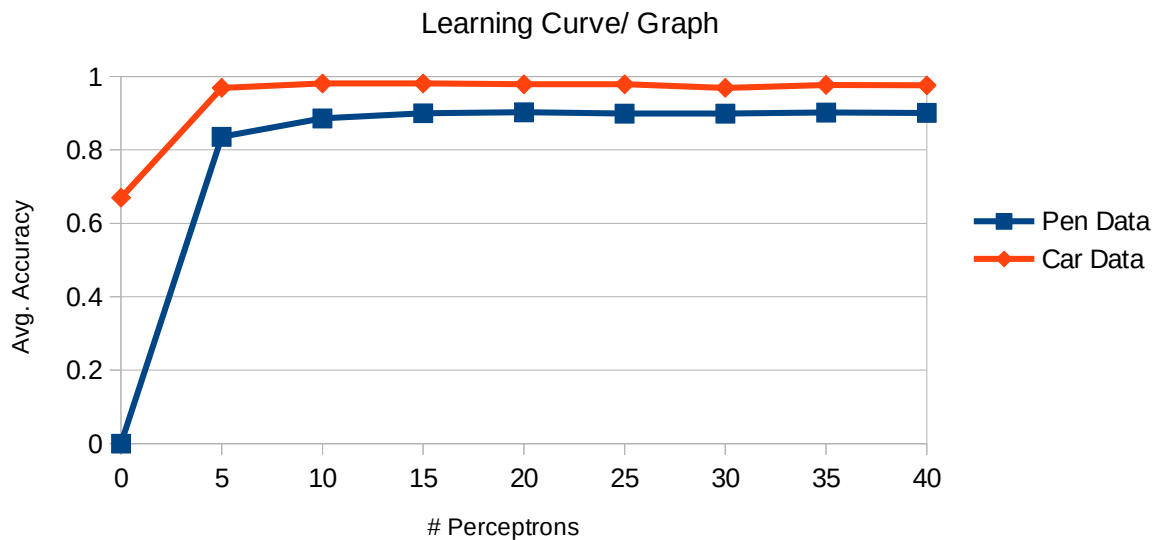
PEN DATA

Perceptrons	Maximum	Average	Standard Deviation
0	0.0	0.0	0.0
5	0.8530588907947398	0.835620354488279	0.011963219443139626
10	0.8987993138936535	0.8857632933104631	0.010782704476755584
15	0.9073756432246999	0.8997712978845055	0.006180777808475744
20	0.9068038879359634	0.9027444253859349	0.003075809641237925
25	0.9059462550028587	0.8988564894225272	0.007235359300485267
30	0.9093767867352773	0.8990851915380217	0.006990862927751579
35	0.9070897655803316	0.9020011435105776	0.007367439070483535
40	0.9082332761578045	0.9008576329331046	0.005076723357443839

CAR DATA

Perceptrons	Maximum	Average	Standard Deviation
0	0.67	0.67	0.0
5	0.98	0.969	0.014966629547095779
10	0.995	0.9810000000000001	0.008602325267042634
15	0.985	0.9810000000000001	0.002000000000000018
20	0.99	0.9789999999999999	0.006633249580710806
25	0.985	0.9789999999999999	0.00489897948556636
30	0.975	0.969	0.00489897948556636
35	0.985	0.977	0.006000000000000005
40	0.98	0.976	0.002000000000000018

Question 6



Analysis:

From the result, we can conclude that the neural network for pen data cannot work with 0 perceptron in use; the neural network will work with 0 perceptron for car data. Moreover, both pen data and car data have a big increases in accuracy in between 0 perceptron usage and 5 perceptrons usage. From 5 perceptrons to 10 perceptrons usage in pen data, we can see a noticeable increase in terms of accuracy. It then starts to stabilize in between 10 – 40 perceptrons usage. For car data, we can see that it stabilizes in between 5 – 40 perceptrons usage. However, we do notice that there are some very little fluctuation in terms of accuracy in between those stable period (10 to 40 in pen data and 5 to 40 in car data).