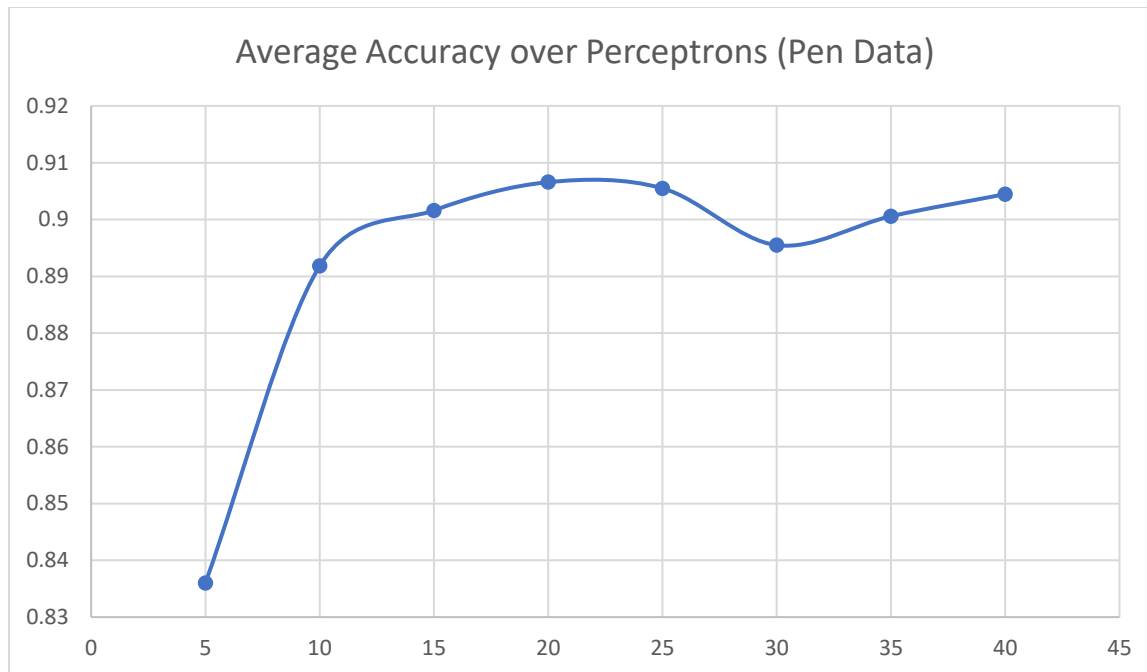


Question 5

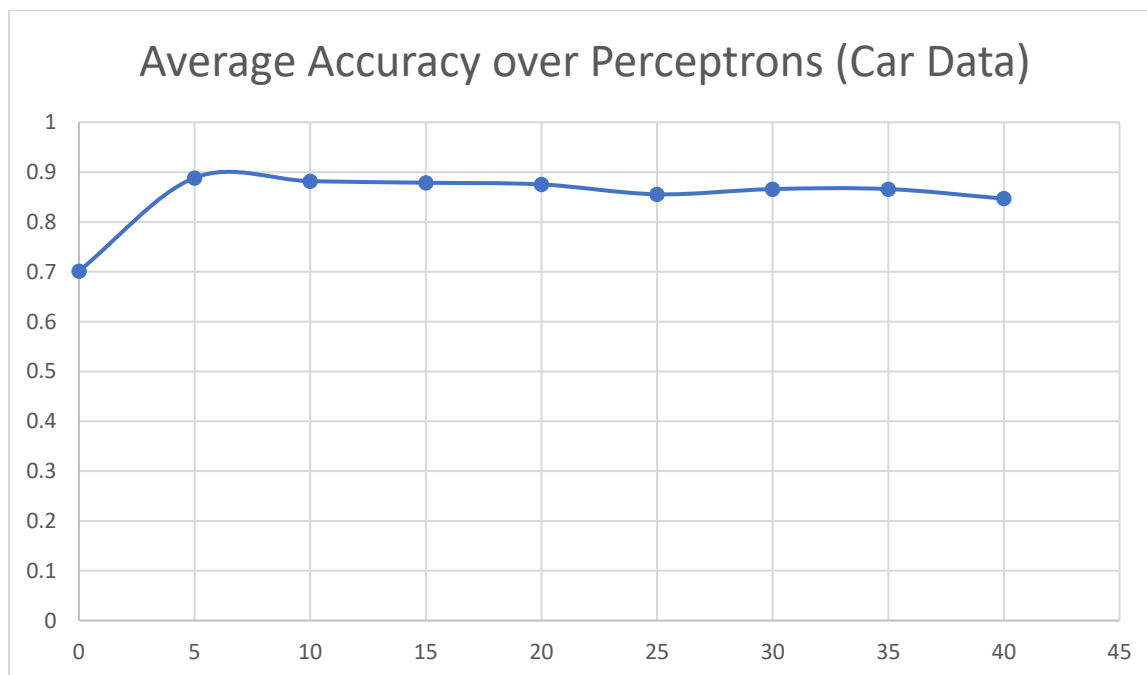
Data Set	Max Accuracy	Average Accuracy	Standard Deviation
Pen Data	0.908805	0.902516	0.00793
Car Data	0.893325	0.881807	0.007485

Question 6

Data Set	Hidden Layers	Max Accuracy	Average Accuracy	Standard Deviation
Pen Data	0	0	0	0
Pen Data	5	0.845911	0.836020	0.007048
Pen Data	10	0.899942	0.891823	0.004751
Pen Data	15	0.908805	0.901601	0.005269
Pen Data	20	0.909663	0.906575	0.002967
Pen Data	25	0.910806	0.905489	0.003044
Pen Data	30	0.904802	0.895483	0.007165
Pen Data	35	0.905660	0.900572	0.005204
Pen Data	40	0.907090	0.904460	0.001570
Car Data	0	0.701571	0.701571	0.000000
Car Data	5	0.891361	0.888613	0.002598
Car Data	10	0.893979	0.881937	0.009298
Car Data	15	0.893325	0.878796	0.012204
Car Data	20	0.893979	0.875393	0.013662
Car Data	25	0.875000	0.855628	0.018679
Car Data	30	0.889398	0.866100	0.016591
Car Data	35	0.875000	0.866099	0.010638
Car Data	40	0.863874	0.846989	0.015040



In general, as the number of perceptrons increase the accuracy increases. There is a notable dip after 20 perceptrons, but the upward trend continues after 30 perceptrons. The max average occurs at 20 perceptrons.



With the exception of going from 0 to 5, as the number of perceptrons increase, accuracy generally decreases. This suggests that the variables in the car data set are not heavily dependent on one another.