

## Q6

### Data

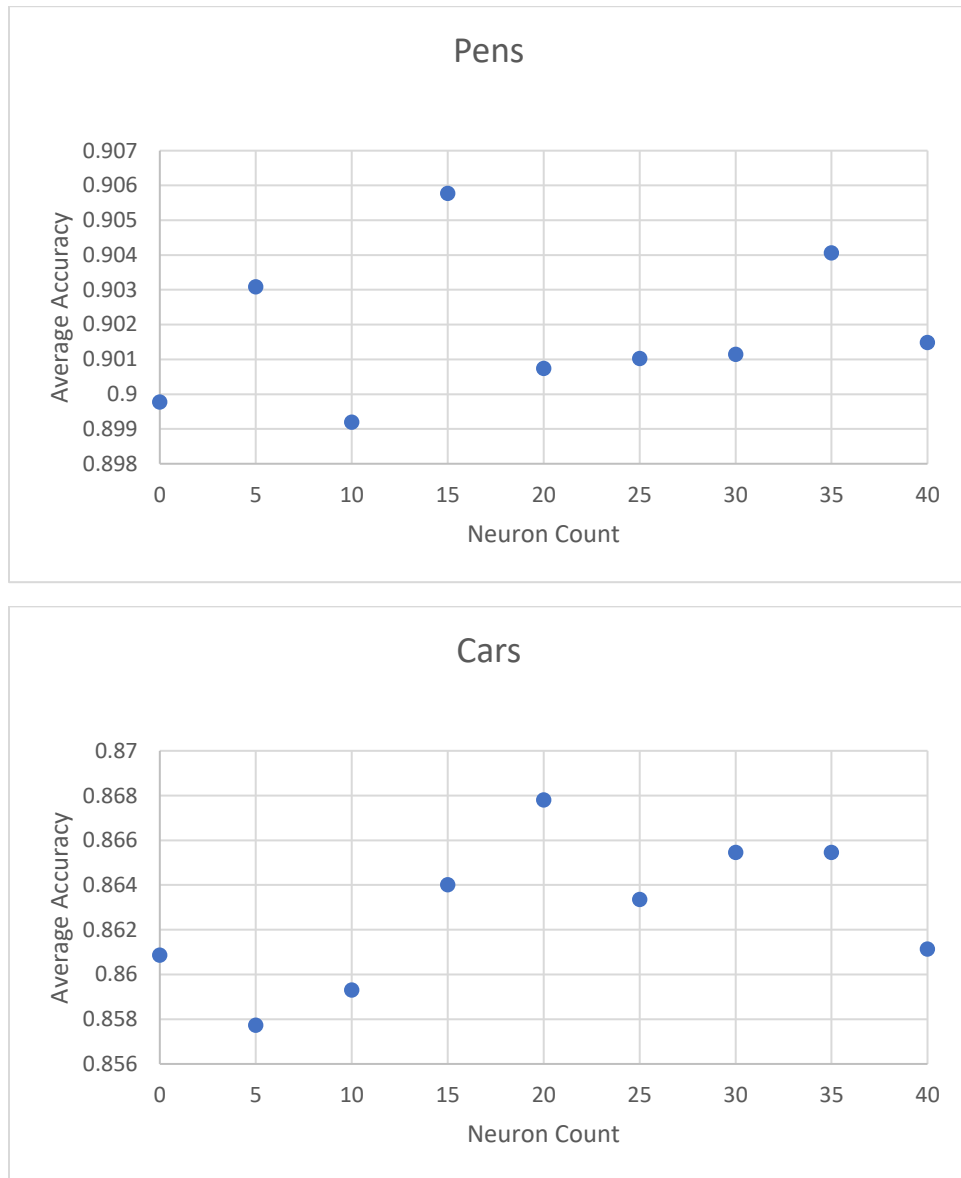
#### -----Data for Pens-----

Neuron Count: 0	Average Accuracy: 0.899771297885
Neuron Count: 5	Average Accuracy: 0.903087478559
Neuron Count: 10	Average Accuracy: 0.899199542596
Neuron Count: 15	Average Accuracy: 0.905774728416
Neuron Count: 20	Average Accuracy: 0.900743281875
Neuron Count: 25	Average Accuracy: 0.90102915952
Neuron Count: 30	Average Accuracy: 0.901143510577
Neuron Count: 35	Average Accuracy: 0.90405946255
Neuron Count: 40	Average Accuracy: 0.901486563751

#### -----Data for Cars-----

Neuron Count: 0	Average Accuracy: 0.860863874346
Neuron Count: 5	Average Accuracy: 0.857722513089
Neuron Count: 10	Average Accuracy: 0.859293193717
Neuron Count: 15	Average Accuracy: 0.864005235602
Neuron Count: 20	Average Accuracy: 0.86780104712
Neuron Count: 25	Average Accuracy: 0.86335078534
Neuron Count: 30	Average Accuracy: 0.865445026178
Neuron Count: 35	Average Accuracy: 0.865445026178
Neuron Count: 40	Average Accuracy: 0.86112565445

## Learning Curves



## Analysis

In both the pens example and the cars example, accuracy has a tendency to increase as the neuron count increases. However, the relationship does not appear linear. In the case of both the pens and the cars, a neuron count past that of twenty seems to grant diminishing returns.