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.