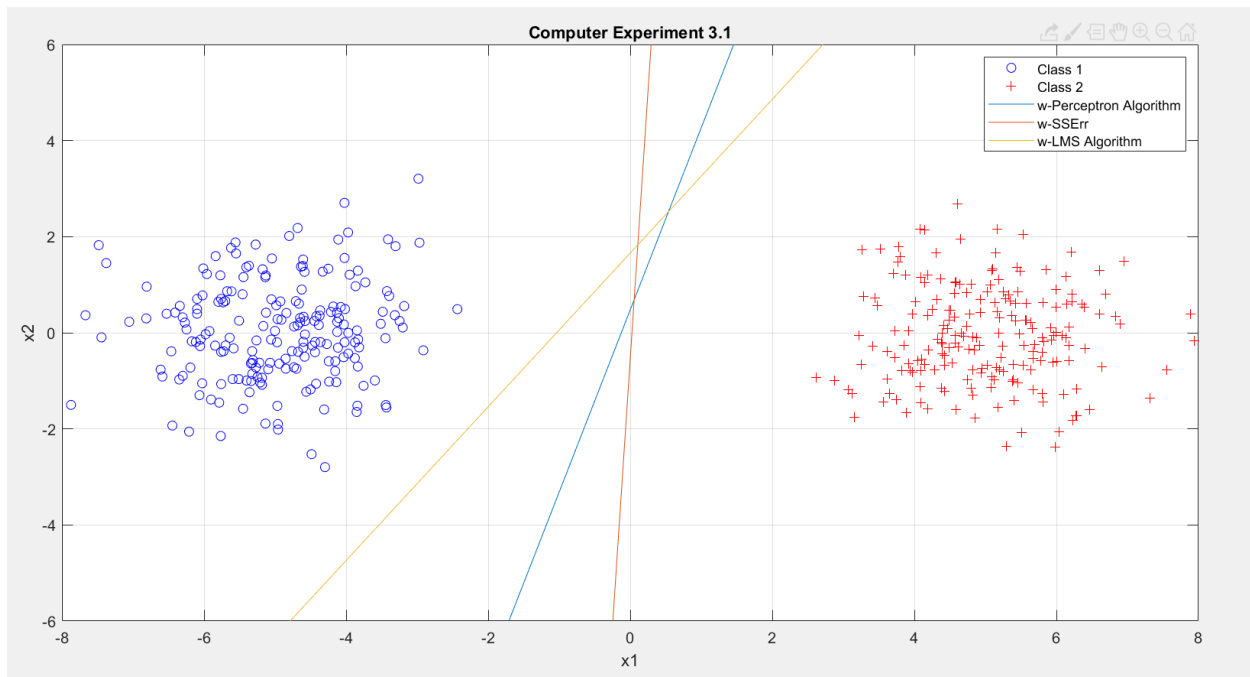


Problem 3.1

Because the perceptron cost function is based on the weight vector which if it changes smoothly, the function will continue changing until the misclassified vectors are corrected linearly. That's why the perceptron cost function is a continuous piecewise linear function.

Computer Experiments 3.1

The performances for all the classifiers are perfect. There are pretty much no misclassified vectors on the graph.



Computer Experiments 3.2

The performance of the Perceptron Algorithm and Sum of errors squares classifiers are almost perfect and close to each other. On the other hand, LMS algorithm doesn't perform as well as the other two classifiers. The LMS algorithm is off by a lot and I suspect that my code cause errors when computing the weight vector.

