CMSE 381: HW11

1 (10 pts) Exercise 9.7.1

2 (20 pts) Exercise 9.7.2

3 (20 pts) Download HW11.csv from D2L and do the following (you can use existing package):

    a. Run hard margin SVM and plot the data together with the estimated hyperplane. Inidicate the support vectors.

    b. Change the label "Y" in the second row ($X_1 = 2.376567682$ and $X_2 = 0.11673195$) to "-1" and re-run the hard-margin SVM. Report your results.

    c. Using the setting in (2), run a soft margin SVM with $C = 1$ and plot the data together with the estimated hyperplane. Inidicate the support vectors.

4 (20 pts) Exercise 9.7.5

5 (20 pts) Exercise 9.7.7

6 (10 pts) Exercise 9.7.8