Statistical Machine Learning Homework 4

June 26, 2017

Problem 1

The following figures show the corresponding partition and the tree in part a and b.
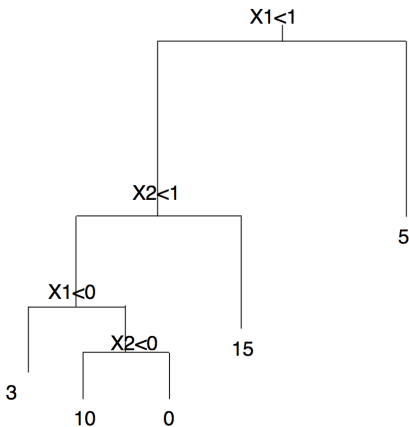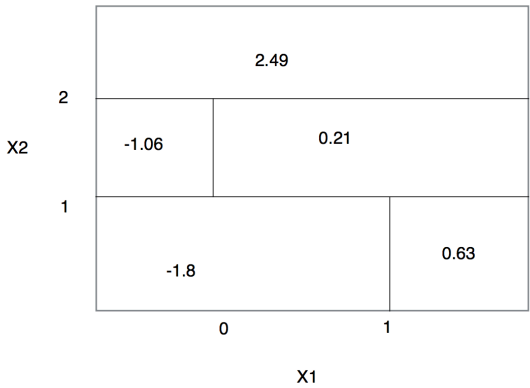

Figure 1: A Tree corresponding to part a

Figure 2: A partition of the predictor space corresponding to part b

Problem 2

We implement the AdaBoost algorithm as described in the question. The code can be found in the attachment. The following figure shows the training error and the testing error in 100 interartion. As expected, when there are more and more iterations, the training error eventually goes to 0, while testing error won't.
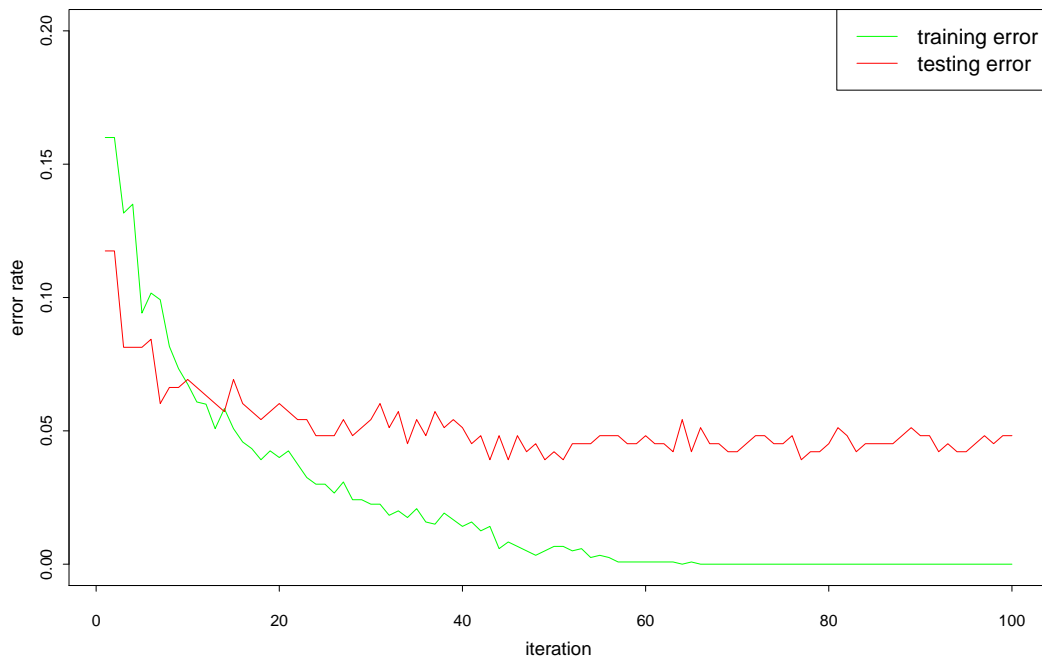

Figure 3: Training and Testing error of the AdaBoost algorithm on the ZIP code data.