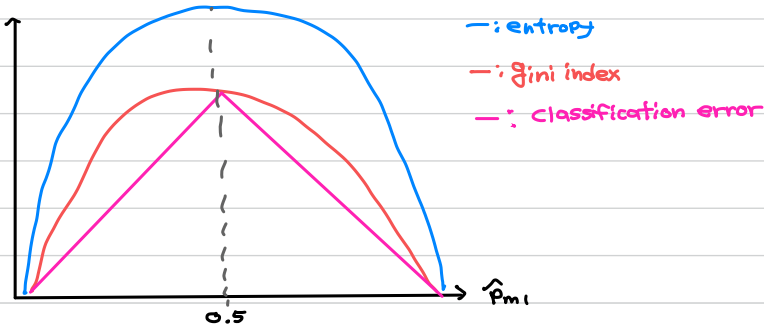


Ch.8 Q.3 Gini index : $G = \sum_{k=1}^K \hat{p}_k (1 - \hat{p}_k)$

classification error : $E = 1 - \max \hat{p}_k$

Cross-Entropy : $D = -\sum_{k=1}^K \hat{p}_k \log(\hat{p}_k)$



4.

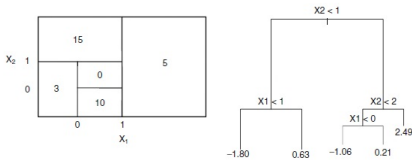
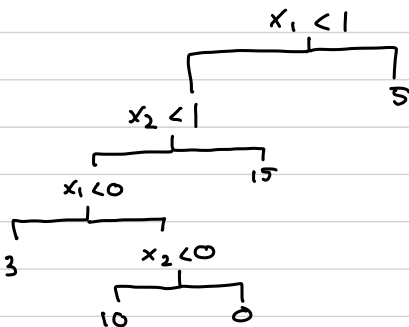


FIGURE 8.12. Left: A partition of the predictor space corresponding to Exercise 4a. Right: A tree corresponding to Exercise 4b.

a)



b)

