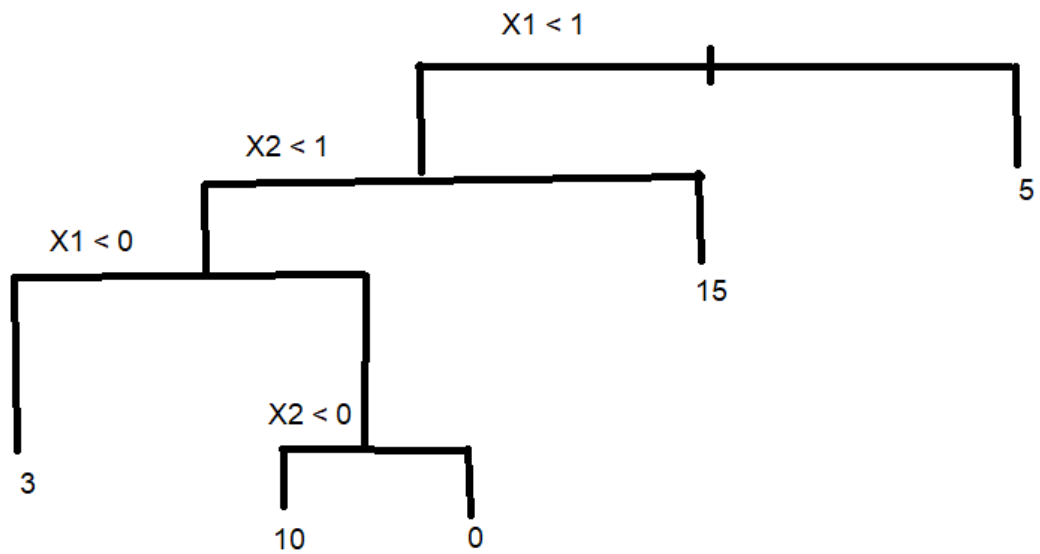
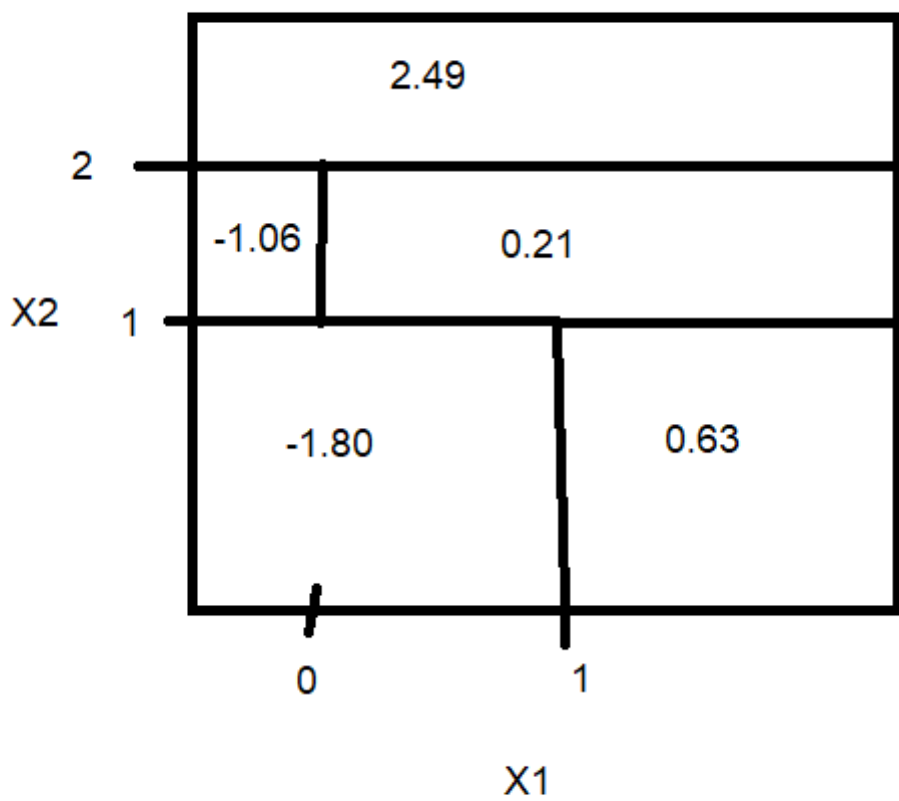


Q4

a)



b)



Q5

majority vote: no, no, no, no, yes, yes, yes, yes, yes, yes -> **final RED**

average probability : $(0.1+0.15+0.2+0.2+0.55+0.6+0.6+0.65+0.7+0.75)/10 = 0.45 \Rightarrow$ **final GREEN**

Q6

1. We divide the predictor space — that is, the set of possible values for X_1, X_2, \dots, X_p — into J distinct and non-overlapping regions, R_1, R_2, \dots, R_J
2. For every observation that falls into the region R_j , we make the same prediction, which is simply the mean of the response values for the training observations in R_j .