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CS 171
PS1

Problem 3:

I picked attribute 3 and 4 after looking at all the combinations. 3 and 4 appeared to have the least bleed between their separate area. I drew the line marking the two separate area to have the least amount of points crossing the line into the other attributes zone.

Problem 4:

Using Bayes rule the probability I have the disease given the test is positive is:

$$\frac{(\text{the probability the test is positive given I have the disease}) (\text{the probability I have the disease})}{(\text{probability the test is positive})}$$

simplifying we have

$$\frac{(.98)(.0003)}{(.98)(.0003) + (.02)(.9996)}$$

solving the equation, the chance I have the disease given the positive test is .01449 or 1.49%