5.8 We are drawing from 5 items A, B, C, D, E (exactly one of which is defective). Draws are to be made without replacement and with equal probability on items then remaining (sound familiar?). Let D denote selection of a defective item and G denote selection of a non-defective item. We are asked for P(D1 or D2). Use the addition rule and “order of the deal does not matter” to intuit P(D2).

5.12 The problem is about conditional probability (not independence as I indicated). If E goes out of business they want you to think of the probabilities of suppliers A, B, C, D being the conditional probabilities conditional on E going out of business. These would be (for A, B, C, D respectively) 0.2/9, 0.25/9, 0.15/9, 0.3/9.

Actually, I dispute the assumption that the conditional probabilities would apply in this case but we’ll go ahead and use them anyway.

Why might the conditional probabilities NOT apply? Perhaps supplier E is “in the family” as is supplier C. With E out of business perhaps C would be more likely than 0.15/9 to get the bid since some or all of the support for E could shift to C.

5.14 I will go over this in class tomorrow, 9-14-07. Here is the relevant tree