

## Homework 10 : Due Friday, May 1

**Extra Problem:** Suppose that you are playing poker with a friend. Each of you is dealt five cards at random from one deck (so you can not both have the same card). You happen to get dealt a flush, and you want to know whether your friend is more or less likely to have a flush based on this information. Thus, we let  $E$  be the event “You have a flush” and let  $F$  be the event “Your friend has a flush”. Calculate  $P(F|E)$ . How does this value compare to  $P(F)$ ? Are  $E$  and  $F$  independent events?