

Math 474 - Homework # 2 - Extra problems  
More combinatorial counting

1. Suppose you are dealt two cards from a standard 52 card deck.
  - (a) What is the probability that they are both aces?
  - (b) What is the probability that they both have the same face value?  
(That is, they are both 3's or both *J*'s.)
2. If a six-sided die is rolled four times, what is the probability that a 3 occurs at least once in the four rolls?