

Additional Problem for Assignment 2

23rd January 2006

Find the probability that a random choice of 5 cards from a standard deck of 52 cards produces a hand with

- (a) A pair. That is, cards $\{a,a,b,b,c\}$ with the a's being two cards with the same values like $\{3D,3S\}$ and the b's being two cards with the same values like $\{JH,JC\}$. The card c should have a value distinct from the values of either a or b.
- (b) Three of a kind. A hand $\{a,a,a,b,c\}$ with b and c distinct in value from a.