

1. (a) A card is drawn from a deck. The card is replaced, and a second card is drawn. What is the probability that both cards are aces?  
(b) Two cards are drawn from a deck. What is the probability that both are aces?
2. A draw poker hand consists of 5 cards (order doesn't matter). Find the probability of drawing a flush (all 5 cards the same suit).
3. What is the probability of getting the ace of spades in a draw poker hand?
4. A bridge hand consists of 13 cards (order doesn't matter). Find the probability of drawing a bridge hand in which every card is a 9 or lower (aces are high in bridge).
5. A pair of fair dice is tossed. What is the probability that the sum is 10 or 11?
6. A pointer is fixed so that it stops on red 70% of the time and green 30% of the time. What is the probability that it comes up red at least once in the next four spins?