

## Discrete Probability Worksheet 1

If you are dealt a hand of five cards from a deck of 52, calculate the probability of each of the following events. For each one, about how many hands do you need to be dealt to expect to see it (your answer for this part does not need to be precise and you can use a calculator)?

1. One pair (and not two pairs or a full house).
2. Two pairs.
3. Three of a kind (and not a full house).
4. Straight—i.e. five cards of sequential value like 8,9,10,J,Q. But don't include straight flushes (where all five cards are also the same suit).
5. Flush—i.e. all cards have the same suit. But don't include straight flushes.
6. Full house—i.e. three of one value and two of another value.
7. Four of a kind.
8. Straight flush that is not a royal flush.
9. Royal flush—i.e. 10,J,Q,K,A all of one suit.
10. None of the above.