

36. Consider a standard deck of 52 cards. The deck is well-shuffled, and 5 cards are drawn at random and without replacement. You may assume outcomes are unordered.
- (a) Describe the sample space. What is the cardinality $\mathcal{C}(\mathcal{S})$?
 - (b) A "full house" is getting three cards of the same kind (face) and two cards of the same kind; for example, getting three "8" and two "jacks." Let F represent the event of drawing a full house.
 - i. How many elements are in F ? Explain.
 - ii. What is the probability of F ? Explain.