

I have 5 first years, 4 sophomores, 6 juniors, and 3 seniors. In how many ways can I form an 8-person committee that has 2 representatives from each class year?

A standard deck of cards has 52 cards (4 suits and 13 ranks). How many different five card hands are possible?

What is the probability that I get exactly two kings in a five-card hand?

What is the probability that I get exactly one pair in a five-card hand?

There are 18 students in this class. Suppose there are only 18 seats in the room (no extras). Everyone leaves the room and then re-enters one at a time, choosing a seat at random. What is the probability that either James or Selwyn ends up in their original seat?