MIT 15.S50 Homework 1

Please print out the homework and hand in a physical copy to Leigh Marie by the start of class on Friday, January 15th.

1. In Jennifer Tilly's hand, she has Jd Jc, and the board is Ts Jh 7c Ks Kc. List all hands that actually beat her (you don't have to list suits, just cards).

2. In Texas Hold'em, getting dealt two Aces ("pocket Aces") is the best possible starting hand you can hope for. What is the probability of getting dealt this hand?

3. You are in the Button position (ie. you are the dealer) and it's folded to you. You are trying to exploit the two players in the Small Blind and Big Blind positions, who are way too tight. You know their strategy is to only call any raise with AA (pocket Aces), and fold everything else. The effective stack size is 20BB. Roughly speaking, what should your strategy be in this situation? By strategy, I mean a description of what to do with each potential hand you could have, eg. "raise with QQ,KK,AA and fold everything else".

4. After the flop, assuming you will see the turn and river, what is the probability of being dealt at least one of 6 cards, without any of 9 other cards appearing? Construct a situation in which two players go all-in on the flop, and the probability of one player winning is approximately this calculation.

Question 4 is taken from Eric Beren's poker homework at Jane Street Capital.