Homework 1, Stat 100a, due Tue Jun 30, 10am in class.

1) List the names and email addresses of two other students in this course.

2) From the gambling addiction handout, according to the Journal of Gambling Studies, in 2005 what percentage of college students reported pathological gambling?

From the textbook, problems 2.2, 2.6, 2.14, 2.18, 3.1, and 3.6.

2.2. An online strategy posted at www.freepokerstrategy.com in 2008 advised going all-in with AK, AQ, AJ, A10, or any pair, and folding all other hands. (The site called this an "Unbeatable Texas Holdem Strategy".) What is the probability of being dealt one of these hands (AK, AQ, AJ, A10, or any pair)?

2.6. What is the probability that you will flop a flush (or straight flush) on your next hand? (Assume you never fold.)

2.14. What is the probability that on your next hand you will be dealt two face cards but not a pocket pair? (A face card is any king, queen, or jack.)

2.18. What is the worst hand you can have, according to the usual ranking of poker hands, and yet have the nuts on the river? Indicate both the board and your two cards.

3.1. Suppose some event A has probability p.

a) Let  $O_A$  = the odds of A. Find a general equation for p in terms of  $O_A$ .

b) Suppose the odds of *A* are 1/10. What is *p*?

c) Suppose the odds against *A* are 5:1. What is *p*?

3.6. Let A be the event that both of your two hole cards are face cards and let B be the event that both your hole cards form a pair. Are A and B independent?