# Math 488P/588 Homework #7

## Due: Monday, 3/2/2015,

NAME: \_\_\_\_\_

**Reading Assignment:** Read Bluman Chapters 6.1-6.2: Normal Distribution, Part 1

Read Hossain/Makhnin Chapters 4.1-4.3. and 4.6. The next quiz or exam (I'll decide on a date for the first exam before Monday, March 2) will contain some of the fully worked examples in those chapters either literally or with insignificant modifications. Be sure to be able to solve those problems on your own!

Some chapters I have skipped and will be assigned at a later date: H/M 3.7: Poisson Distribution H/M 4.4: Exponential distribution H/M 4.5.1: Poisson process, disregarding the link with the Gamma function

#### Assignment 1:

Bluman Problems p.280/281 ch.5.2; #3: Number of credit cards #8: Cell phone sales #14: Dice game #17: Winning the lottery

### **Assignment 2:**

Bluman Problems p.291/292, ch.5.3:
#20:Tossing coins
#8: Multiple choice exam
#17c,d: mean, variance, std distr for binomially distr r.v.
#18 a: mean, variance, std distr for binomially distr r.v.
#20: mean, variance, std distr for 20 coin tosses

### Assignment 3:

Bluman Problems p.298/299: Review, ch.5: #13: Card game #18: Flu shots #21: Pizza for breakfast

### **Assignment 4:**

Two ball are selected from two separate urns #1 and #2 with the following properties: Urn #1 contains 3 black balls and one white ball. Urn #2 contains 3 white balls and one black ball. Suppose that one of these urns is randomly chosen. Then ball #1 is picked from that urn, its color is noted, it then is returned to its urn. Afterwards ball #2 is picked from that same urn and its color is noted. If both balls are white, what is the probability that the balls were drawn from Urn #2?