

## Math 488P/588 Homework #5

**Due: Some already on Monday, 2/16/2015, some on Thursday, 2/19/2015**

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

**Assignment 1:** Due MONDAY: Read Bluman Section 4.4 and 4.5

**Assignment 2:** Due MONDAY: Bluman Problems pp. 243: #8, #8, #22, #24, #39, #46, p.253 #6, #11, #13, p.258 #44

All else is due on Thursday

**Assignment 3:**

A student is taking a one-hour exam. Suppose the probability to finish the exam at time  $t$  ( $0 \leq t \leq 1$  (hours)) is  $t/2$ . Note that this implies that the probability that the student finishes in time is only 50%.

Given that the student is still working after 45 minutes, how likely is it that she will not finish in time?

**Assignment 4:**

Mom gives her two kids one candy each from a box which contains 40 red ones and 20 orange ones. She does not look into the box when she picks them. What is the probability that both her children get a red candy?