Suaray **DUE TUES 10.6.15**

MATH 410/510: REGRESSION ANALYSIS- HW3

1a.**(You cannot use SAS for this problem)** Suppose we have data for which we can be confident that the y-intercept is zero. Under the standard assumptions, derive the *least squares* estimate of the slope β_1.

b. Derive a formula for the variance of your estimate in a.

c. Suppose that we observe the data (1,1), (2,4) and (3,3) for this model. What is the estimate of β_1? What is the standard error your estimate? Find a 95% confidence interval for β_1.

2. From Textbook: 5.3,14,17 (for part c., do **not** multiply matrices), 28, 31
6.5b, 15c