

**Psychology 613: Multivariate Statistics (Data Analysis III)**  
**Problem Set 1**

The following problem set is due at **5pm** on **Thursday, April 8<sup>th</sup>**, via direct deposit on Canvas. For the “by hand” problems, you can write them out and scan them to PDF or type them out in Word. For the “computer” problem, submit the code and output as a PDF.

**Please try to complete at least Problems 1 and 3; Problem 2 is optional!**

*Please complete the following problems BY HAND and on your own:*

1. Complete exercises: A.2.2, A.2.5, and A.2.9 in the Woodward Appendix.
2. Determine the reduced row echelon form of the matrix:

$$\begin{bmatrix} 2 & 1 & 2 \\ 1 & -1 & 2 \\ -1 & -5 & 2 \\ -1 & -5 & 2 \\ -1 & 10 & -8 \end{bmatrix}$$

*Please use a computer (and the internet) to complete the following problems.*

3. Check your work for problems 1 and 2 using R (which you’ll know how to do by Tuesday).