Linear Algebra
MATH 224W – Spring 2016

Week 3: more matrix arithmetic and matrix transformations

Writing Assignment #2 **due Monday, February 1**

§1.3 #28(b), 43(a), 45
For #28(b), suppose that the r^{th} column of A consists entirely of zeros. Which column of BA consists entirely of zeros? Prove it. There is a solution to #43(c) on ShareLaTeX to use as a model for 43(a); here is the link: https://www.sharelatex.com/project/55e734359d3c7ac43e72f275. On #45, it may be helpful (and very efficient) to use #43. (You can use all of the parts of #43, even though you didn't prove them.)

AP #1 *(this stands for Additional Problem #1 - this is part of your assignment)*
Let A and B be $m \times n$ matrices. Show that $(A+B)^T = A^T + B^T$.

Remember what you read in the Assignment Template And Learning LaTeX document. For this assignment, you may want to use the following project as a template.

https://www.sharelatex.com/project/55e6f9b09d3c7ac43e72e7a8

Homework #2 **due Thursday, February 4**

§1.3 #22, 23, 30, 38(a), 40, 44(a)(b)

§1.4 #10, 11, 12, 23, 32

§1.5 #31, 32, 33(a), 36, 38