Math 215 HW #9

Due 5:00 PM Thursday, April 8

Reading: Sections 4.4, 5.1–5.2 from Strang's *Linear Algebra and its Applications*, 4th edition.

Problems: Please follow the guidelines for collaboration detailed in the course syllabus.

1. Problem 4.4.12.
2. Problem 4.4.18. Since the matrix in (b) is symmetric, you can use that symmetry to save yourself some calculation.
3. Problem 4.4.24. Suggestion: use the formula $A^{-1} = \frac{1}{\det A} C^T$.
4. Problem 4.4.28.
5. Problem 4.4.32.
6. Problem 5.1.8. Note: The numbers $\lambda_1, \ldots, \lambda_n$ are the eigenvalues of A.
7. Problem 5.1.14.
8. Problem 5.1.24.
9. Problem 5.1.26.
10. Problem 5.1.30.