## Homework 15: Determinants, Eigenvalues, and Eigenvectors

Assignments should be **stapled** and written clearly and legibly. Problems 5 and 6 are optional.

- 1. §2.1, #22, 28, 30.
- $2. \S 2.2, \# 12, 23, 29.$
- 3. §2.3, #8.
- 4. §5.1, #3, 4, 28, 33.

For Problem 28, use the definition of trace given on page 36 of the textbook. For Problem 33, you should not use any determinants in your proof.

- 5. (Bonus) §2.1, #41.
- 6. (Challenge) §5.1, #32.