MATH 350 Linear Algebra
Homework 5

Instructor: Will Chen

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Problems

Book Problems 2 points each, 26 points total

- §2.5, Problems 2(b), 2(c), 3(c), 5, 6(b), 6(c), 7(a)

- §3.2, Problems 5(e), 6(a), 7

- §3.3, Problems 2(b), 3(b)

- §3.4, Problem 6

Additional Problems (4 points total)

- A 3×3 magic square is a 3×3 matrix with entries in $\mathbb{R}$ where every column, row, and diagonal sums to 0 (there are 2 diagonals).

    - (2 points) Show that the set of 3×3 magic squares is a subspace of $M_{3\times3}(\mathbb{R})$.
    - (2 points) Compute the dimension of the space of 3×3 magic squares.