

## Linear Algebra 2270-2

Due in Week 4

The fourth week continues the work from chapter 2. Here's the list of problems, followed by problem notes and a few answers.

**Section 2.4.** Exercises 2, 5, 22, 24

**Section 2.5.** Exercises 1, 7, 8, 14, 15, 22, 24, 40

**Section 2.6.** Exercises 6, 12, 15, 23

### Problem Notes

Resolution of issues for Strang's problems will appear here in response to communications. If there is a difficulty, like a missing definition, incomplete information, or just no way to get started, then please write email, call 581-6879, or visit JWB 113.

### Some Answers

**2.4.** All exercises 2, 5, 22, 24 have a textbook answer.

**2.5.** Exercises 1, 7, 8, 14, 15, 22, 24 have a textbook answer.

**2.5-40.** The inverse of  $A = \begin{pmatrix} 1 & -a & 0 & 0 \\ 0 & 1 & -b & 0 \\ 0 & 0 & 1 & -c \\ 0 & 0 & 0 & 1 \end{pmatrix}$  is  $A^{-1} = \begin{pmatrix} 1 & a & ab & abc \\ 0 & 1 & b & bc \\ 0 & 0 & 1 & c \\ 0 & 0 & 0 & 1 \end{pmatrix}$ . See also the cofactor formula

for the inverse in 5.3.

**2.6.** All exercises 6, 12, 15, 23 have a textbook answer.