The fourth week homework continues work from chapter 1. Optional section 1.10 on applications has no exercises assigned, due to lack of time. Section 1.9 is in the following week’s homework. Here’s the list of problems:

**Section 1.6.** Exercises 1, 7, 13.

**Section 1.7.** Exercises 7, 13, 17, 27, 37.

**Section 1.8.** Exercises 17, 20, 25, 31.

**Answers**

The odd problems have answers in the textbook.

Exercise 1.8-20: \( A = \begin{pmatrix} -2 & 7 \\ 5 & -3 \end{pmatrix}, \vec{x} = \begin{pmatrix} x_1 \\ x_2 \end{pmatrix}. \)