Textbook problems

- §1.1: 12, 14, 16, 43

- §1.2: 36, 38, 40, 48, 49

- *Suggestion (not to hand in):* Also try the odd-numbered problems from 9-19 and 21-27 in §1.2, and check your answers in the back of the book. These are fairly short, and will help you check your understanding of reduced echelon form.

- §1.8: 4

Supplemental problem (also to hand in)

1. (a) Give three examples of linear systems of 2 equations in 4 variables, as follows: one that is inconsistent, one where the general solution with two free variables, and one where the general solution has three free variables.
   (b) Explain why it is impossible for a linear system of 2 equations in 4 variables to have a *unique* solution. (*Hint:* think about where the pivots can occur after reducing to echelon form.)

Important notes:

- Gradescope will stop accepting submissions promptly at midnight on the due date. *Try to submit this assignment at least several hours early* to allow yourself time to work out any technical difficulties.
- Please ask me for help if you you find that it is taking you more than a couple minutes to scan and submit your work.
- After the assignment is graded, you will be able to view comments on your work on Gradescope. If you believe that there may have been an error in the grading, please use the "request regrade" button on Gradescope, which will automatically email both me and the grader. Regrade requests must be submitted within *one week of the due date* of the assignment.
- For full credit, you must show or explain your reasoning.
- You are encouraged to work in groups while solving the problems, but all submitted work must be your own work in your own words. Use of solution manuals or online solution databases is plagiarism, and will result in a 0 on the assignment in addition to being reported to Community Standards.

Submission instructions:
Before submitting each assignment, you should scan it to a pdf file (unless you type your work). The easiest method to do this is to use a smartphone app, but you can also use a scanner or any other method you choose, as long as it creates an easily readable pdf. There are several smartphone apps that can quickly and easily create a high-quality scan; see the following document for suggestions.

http://npflueger.people.amherst.edu/GS_guide.pdf

View your pdf to make sure that it is clearly legible. Then submit it as follows.

1. Go to http://www.gradescope.com, click "Sign up for free," and select "I am a student." You may leave "student ID" blank.
2. Use the course code MERDPW, your name, and your amherst email address to sign up.
3. Select "Math 272" and the appropriate homework assignment, then select "submit pdf."
4. For each written question, select the pages of your submission where your solution appears.
5. Click submit.