## **Exercises for Week 3**

The work handed in should be entirely your own. You can consult the textbook and/or the class notes but nothing else. To receive full credit, justify your answer in a clear and logical way. Due Sept. 23.

**Reading.** Read Sections 1.6–1.7 of the textbook carefully. The proof of maximal chains of linearly independent subsets is the subject of Section 1.7. This last section is optional material, but it is recommended you read it through.

1. Section 1.6 Exercise 2 (a) (b) 3 (b) (c), 5, 11, 12, 20 (Hint: Mimic the method about maximal chains of linearly independent subsets of *S*)