

Assignment 4 is due at the start of class on **Wednesday, February 28**.

## Instructions

Write the answers to the following exercises, in order. If you create a file containing your answers, print the file. Staple pages together, and include your name. Turn in your work in paper form at the start of class.

## Exercises

1. Do exercise 3.1.2 on pages 91–92.
2. Do exercise 3.2.4 on page 108. *You do not need to use the procedure from the text, although you may, if you wish. You **do** need to find an  $\epsilon$ -NFA that accepts the language that each regular expression represents.*
3. Do exercise 4.1.1, parts d and e, on page 131.
4. Do exercise 4.3.2 on page 155.
5. Do exercise 4.4.2 on page 167.
6. Do exercise 5.1.1, part c, on pages 181–182.
7. Do exercise 5.2.1, on page 193.
8. Suppose we wish to store customer billing data in an XML file. There may be any number of customers. Each customer has a name, ID number, address, and any number of debits and credits to their account. Write a reasonable XML DTD for such a file format.