

CS 334 – Fall 2004: Assignment 5

1. page 129: 4.1.1b
2. page 129: 4.1.1c
3. page 130: 4.1.2a
4. page 130: 4.1.2f
5. Can the pumping lemma prove that a given language L is regular? If so, how? If not, why not?
6. page 145: 4.2.1a
7. page 146: 4.2.1c
8. page 156: 4.2.2
9. page 148: 4.2.13a
10. page 164: 4.4.1b
11. Can you tell if two regular languages are the same? If so, tell how. If not, tell why not?
12. What is the cardinality of a regular language? Explain.
13. Is the set of integers a regular language? Explain.
14. Can you tell if a regular language is empty? Explain.

We will do 1 – 5 on September 24 and the rest on September 27 or 29 depending on how much we cover in class.

A test on Chapters 1 – 4 will be given on September 30. The problems will be similar to those you did as homework.

Hint: Some of the answers are in the textbook.