

CS 3133 Foundations of Computer Science
C term 2012

Homework 3, due Monday, February 6

READING: Chapters 4, 5, 6.

1. Exercise 1 on page 184. (20 points)
2. Exercise 12 on page 185. (20 points)
3. Design a DFA that accepts the language consisting of the set of those strings over $\{a, b, c\}$ in which the number of a 's plus the number of b 's plus twice the number of c 's is divisible by six. (20 points)
4. Design an NFA that accepts the following language over the alphabet $\{a, b, c\}$:

$$(abc)^*(ab)^*$$

(20 points)

5. Exercise 36 on page 187. (20 points)