

CISC320 Algorithms, Homework set 4
Due 4:30pm¹, Thursday , April 29, 2010.

Minimal Spanning Trees in undirected graphs
Huffman codes
Dynamic programming

1. Exercise 5.2.
2. Exercise 5.3.
3. Exercise 5.14.
4. Exercise 5.15.
5. Do one of Exercises 6.1, 6.2, 6.3.
6. Do another of Exercises 6.1, 6.2, 6.3 (sorry, no extra credit for doing the third).
- 7a. Exercise 6.4.
- 7b. Suppose the dictionary of exercise 6.4 is prefix free (like Huffman codes): no word in the dictionary is a prefix of any other word in the dictionary. Design a faster algorithm to solve 6.4 in this case. How fast (big-O) is your algorithm?

¹This extended deadline (end of TA office hour in 101 Smith Hall) comes with a caution: It is a hard deadline. What Michael takes with him at that time is what gets graded as on time.