

CS 170: Problem Set 7

Due: October 14, 2011, 4:00 p.m.

Instructions: Turn this in to the class homework boxes in 283 Soda by 4:00 p.m. on Friday, October 14, 2011. Please begin your answer to each question on a new sheet of paper and make sure each sheet is labeled with your name, SID, section number, GSI name, the assignment number, the question number, and “CS 170 – Fall 2011.”

Because each problem will be graded by a different reader, please **turn in each question in a different box in 283 Soda**. Question i goes in the box labeled “CS 170 — i .”

Please read the class webpage for rules regarding collaboration (encouraged!) and cheating (forbidden!) on homework.

DPV = Dasgupta, Papadimitriou, and Vazirani.

Huffman Encoding

1. DPV 5.14
2. DPV 5.16

Designing Greedy Algorithms

3. DPV 5.28 (You should assume that person u knows person v iff person v knows person u .)

Minimum Spanning Trees

4. DPV 5.2
5. DPV 5.7
6. DPV 5.9a-g