CS388R: Randomized Algorithms

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Problem Set No. 6

due: Nov. 11, 2008

1. Complete the midterm. Your score for any exam problem will be at least that received on the exam; therefore, for example, don't redo problems for which you received full credit. Your score for this homework problem will be your revised exam score divided by 2. Please remember to hand in your exam along with your homework.

- 2. Show that the Shortest Path problem can be formulated as a linear programming problem. The input to Shortest Path is a weighted directed graph G = (V, E) with weight function $w: E \to (0, \infty)$, and two vertices $s, t \in V$. The output is a path from s to t of smallest weight, where the weight of a path is the sum of the weights of the edges in the path.
- 3. Problem 4.13.
- 4. Problem 9.8.