

## CSI 35, Homework 10 on sections 10.6, 10.8

Due by Mon, Nov 21.

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Here are seven questions for you to try from the book. Write all your working out and answers on your own notepaper. Please use lots of space. It is very important that you show clearly any work you had to do to get your answers.

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- (1) Page 716, Question 3. Find the shortest path from  $a$  to  $z$  by just playing around with the possibilities. Give the shortest path you find as a sequence of vertices, and give its length.
  - (2) Page 716, Question 2, but do this question using Dijkstra's algorithm. Show the steps of the algorithm by making a table, as in the notes, that gives the set  $S$  and the values of the labels  $L$  at each iteration.
  - (3) Page 717, Question 25
  - (4) Page 725, Question 6
  - (5) Page 733, Question 4
  - (6) Page 733, Question 8
  - (7) Page 733, Question 15
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If you understand the homework questions then you will be able to do the exam questions. You can also try the other questions listed on the syllabus to get extra practice. For any difficulties with the homework, please email me, come to my office hours or try the Math Tutoring Lab.