Show your work for all parts of all problems, using pencil (or pen) and paper. The first two problems were originally intended to be on assignment 2, but were delayed until this assignment. The remaining two problems are simply dynamic programming problems.

1. Problem 1 on page 141 of the text.

2. Problem 6 on page 142 of the text.

3. Problem 1 on page 225 of the text. State the shortest path length, and all paths that attain this length (there should be three of them).

4. Problem 2 on pages 225-226 of the text. State the optimal profit and which city the salesperson should be in on each of Monday, Tuesday, and Wednesday.