Instructions:  See previous homeworks for instructions.

For all of these problems, please state explicitly each of the following: (1) What your subproblems are, and what they mean (for example, “L[i]” is the length of the shortest path ending at i” is fine, while “L[i] is optimum at i” does not mean anything). (2) Your recurrence and algorithm (a few lines of pseudocode should suffice here). (3) One or two sentences explaining why your recurrence is correct (no need to give a formal proof here).

(1) DPV Problem 6.3. Your algorithm should run in time at most $O(n^2)$ (although a better running time is also possible).

(2) DPV Problem 6.4.

(3) DPV Problem 6.11.

(4) DPV Problem 6.17.

(5) DPV Problem 6.22.