Homework 2.
Due: Thursday, February 6, 2020 before lecture via Gradescope.

Problem 1 [DPV] Problem 6.1 – Maximum sum

(a) Define the entries of your table in words. E.g., $T(i)$ or $T(i, j)$ is ....

(b) State recurrence for entries of table in terms of smaller subproblems.

(c) Write pseudocode for your algorithm to solve this problem.

(d) Analyze the running time of your algorithm.

Problem 2 [DPV] Problem 6.8 – Longest common substring

(a) Define the entries of your table in words. E.g., $T(i)$ or $T(i, j)$ is ....

(b) State recurrence for entries of table in terms of smaller subproblems.

(c) Write pseudocode for your algorithm to solve this problem.

(d) Analyze the running time of your algorithm.

Problem 3 [DPV] Problem 6.19 – Making change k

(a) Define the entries of your table in words. E.g., $T(i)$ or $T(i, j)$ is ....

(b) State recurrence for entries of table in terms of smaller subproblems.

(c) Write pseudocode for your algorithm to solve this problem.

(d) Analyze the running time of your algorithm.

Problem 4 (The thief's plan)

(a) Define the entries of your table in words. E.g., $T(i)$ or $T(i, j)$ is ....

(b) State recurrence for entries of table in terms of smaller subproblems.

(c) Write pseudocode for your algorithm to solve this problem.

(d) Analyze the running time of your algorithm.