Homework 12

You have to submit your solutions as announced in the lecture.
Unless mentioned otherwise, all problems are due 2017-05-18, 11:00.
There will be no deadline extensions unless mentioned otherwise in the lecture.

Problem 12.1 *Greedy Algorithms*   Points: 12

Using the structure of the generic greedy algorithm, implement the greedy algorithm for problem from Ex. 21.4.

Problem 12.2 *Matroids*   Points: 6

Prove that the structure used in the scheduling algorithm (21.4.3) is indeed a matroid.

Problem 12.3 *Dynamic Programming*   Points:

TBD

Problem 12.4 *Parallelization*   Points: 6

Consider the parallel associative folding algorithm from the notes.

Determine the time complexity $C^k(n)$ for runing it on a list of length n using k machines.