Discrete optimization | Thursday, March 21, 2019
Prof. F. Eisenbrand | EPFL

The problem can be submitted until March 29, 12 :00 noon, by sending the Python file to igor.malinovic@epfl.ch .

Student(s) [1] :

Question 1 : *The question is worth* 5 *points.*

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 *Reserved for the corrector*

1. Implement Phase I of the Simplex algorithm, i.e., compute an initial feasible basis. Use "Simplex_HW.py" file, which can be found on the course git server.
2. Compute an optimal solution to the dual of the LP specified by A, b, c (See the file).

Remark : Phase I creates the LP from Assignment 4, Problem 5.3.

The last three constraints of $Ax \leq b$ in "Simplex_HW.py" are representing $x \geq 0$. Observe that the "slack" variables, i.e. components of y, corresponding to those constraints can be omitted.

1. You are allowed to submit your solutions in groups of at most three students.