

Exercise 2

Consider the capacitated lot sizing problem with setup times (as in Jans and Degraeve 2004). Assume that the Wagner-Whithin Property is satisfied, and that each product can be produced within a time period. If we solve the subproblem (35)-(38) to integer optimality (i.e. solving the multiple-choice knapsack problem to integer optimality) do we get a meaningful lower bound?

- If yes, discuss why the bound is valid.
- If no, argue why the bound is not valid.

Exercise 3

Consider the example at page 324 in *Knapsack Problems*.

- Run the next iteration of the algorithm from where the example ends.