Methodology, Modelling and Consulting Skills Homework 1

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October 6, 2021

Exercise 1

Max. $0.8 * x_1 + 0.8 * x_2 + 0.9 * x_3 + 1.1 * x_4$

s.t.

$0.3 * x_1 + 0 * x_2 + 0.2 * x_3 + 0.1 * x_4 \leq 500$

$0 * x_1 + 0.2 * x_2 + 0.2 * x_3 + 0.1 * x_4 \leq 400$

$0.2 * x_1 + 0.3 * x_2 + 0.2 * x_3 + 0.3 * x_4 \leq 800$

$1 * x_1 + 1.2 * x_2 + 1.2 * x_3 + 1.5 * x_4 \leq 2000$

$0.1 * x_1 + 0 * x_2 + 0.1 * x_3 + 0.3 * x_4 \leq 300$

$x_1 \geq 140 + 175$

$x_2 \geq 210 + 105$

$x_3 \geq 350 + 280$

$x_4 \geq 105 + 140$