1 Homework 8

[1] Use the **Simplex Method** to find both the maximum solution and the minimum solution.

1.

$$\begin{aligned} \text{Optimize} \quad & z = 2x_1 + 3x_2 \\ \text{subject to} \quad & 2x_1 + 3x_2 \geq 6 \\ & 3x_1 - x_2 \leq 15 \\ & -x_1 + x_2 \leq 4 \\ & 2x_1 + 5x_2 \leq 27 \\ & x_i \geq 0, \quad i = 1, 2 \end{aligned}$$

2.

$$\begin{aligned} \text{Optimize} \quad & z = 6x_1 + 4x_2 \\ \text{subject to} \quad & -x_1 + x_2 \leq 12 \\ & x_1 + x_2 \leq 24 \\ & 2x_1 + 5x_2 \leq 80 \\ & x_i \geq 0, \quad i = 1, 2 \end{aligned}$$

[1] Due date: `April 23, 2019`.