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.

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

单纯形法:

1. Xi, Z, Si >= 0

---

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