MATH 521 HOMEWORK K
DUE 12/3/18

(1) Complete the transportation problem from class (if you did not do so already)

(2) Attempt to solve the following LP using the two-phase simplex method. What do you discover?

$$\begin{aligned} \text{Maximize} \quad & z = 3x + 4y \\ \text{subject to} \quad & x + y \leq 10 \\ & 2x - y \leq -1 \\ & -3x + y \leq -4 \\ & x, y \geq 0 \end{aligned}$$

(3) Find the optimal objective value to the following LP by solving the dual LP.

$$\begin{aligned} \text{Minimize} \quad & C = 60y_1 + 100y_2 + 300y_3 \\ \text{subject to} \quad & y_1 + 2y_2 + 3y_3 \geq 180 \\ & 4y_1 + 5y_2 + 6y_3 \geq 120 \\ & y_1, y_2, y_3 \geq 0 \end{aligned}$$

Date: November 26, 2018.