Primale	Duale
$min\ c^T x$	$max\ p^T b$
$Ax = b$	$p^T A \leq c^T$
$x \geq 0$	

Primale	Duale
$min\ c^T x$	$max\ p^T b$
$Ax \geq b$	$p^T A = c^T$
	$p \geq 0$

Primale	Duale
$min\ c^T x$	$max\ p^T b$
$x_j \geq 0, \quad j \in N_1$	$p^T A_j \leq c_j, \quad j \in N_1$
$x_j \leq 0, \quad j \in N_2$	$p^T A_j \geq c_j, \quad j \in N_2$
x_j free, $\quad j \in N_3$	$p^T A_j = c_j, \quad j \in N_3$
$a_i^T x \geq b_i, \quad i \in M_1$	$p_i \geq 0, \quad i \in M_1$
$a_i^T x \leq b_i, \quad i \in M_2$	$p_i \leq 0, \quad i \in M_2$
$a_i^T x = b_i, \quad i \in M_3$	p_i free, $\quad i \in M_3$

$$min\ x_1 + 2x_2 + 3x_3$$

$$\begin{cases} -x_1 + 3x_2 = 5 \\ 2x_1 - x_2 + 3x_3 \geq 6 \\ x_3 \leq 4 \\ x_1 \geq 0, \quad x_2 \leq 0 \end{cases};$$

$$max\ 5p_1 + 6p_2 + 4p_3$$

$$\begin{cases} -p_1 + 2p_2 \leq 1 \\ 3p_1 - p_2 \geq 2 \\ 3p_2 + p_3 = 3 \\ p_1 \text{ free}, \quad p_2 \geq 0, \quad p_3 \leq 0 \end{cases};$$