$\min c^\top x$ subject to $Ax = b$, $x \ge 0$ where

$$A = \begin{bmatrix} \qquad\qquad\qquad\qquad \\ \\ \\ \end{bmatrix}, \quad b = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}, \quad c = \begin{bmatrix} \qquad \\ \\ \\ \\ \\ \end{bmatrix}$$

$$\mathcal{B} = \left\{ \qquad\qquad \right\}, \quad B = \begin{bmatrix} \qquad\qquad\qquad \\ \\ \\ \end{bmatrix}, \quad c_B = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}, \quad \underline{Bx_B = b} \implies x_B = \hat{b} = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}$$

$$\mathcal{N} = \left\{ \qquad\qquad \right\}, \quad N = \begin{bmatrix} \qquad\qquad\qquad \\ \\ \\ \end{bmatrix}, \quad c_N = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}$$

$$\underline{B^\top y = c_B} \implies y = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix} \qquad \implies \qquad \underline{\hat{c}_N = c_N - N^\top y} = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}$$

$\boxed{\hat{c}_N \ge 0 \text{ ?: stop, optimum}}$ $\quad \hat{c}_N \xrightarrow[\text{of min}]{\text{index from } \mathcal{N}} t = \overset{\text{entering}}{\boxed{\quad}} \to \underline{B\hat{A}_t = A_t} \implies \hat{A}_t = \begin{bmatrix} \hat{a}_{1,t} \\ \vdots \\ \hat{a}_{m,t} \end{bmatrix} = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}$

$\boxed{\hat{A}_t \le 0 \text{ ?: stop, unbounded}}$ $\quad \left\{ \frac{\hat{b}_i}{\hat{a}_{i,t}} \right\} = \left\{ \qquad\qquad\qquad\qquad \right\} \xrightarrow[\text{min over } \hat{a}_{i,t} > 0]{\text{index from } \mathcal{B} \text{ of}} s = \overset{\text{leaving}}{\boxed{\quad}}$

$$\mathcal{B} = \left\{ \qquad\qquad \right\}, \quad B = \begin{bmatrix} \qquad\qquad\qquad \\ \\ \\ \end{bmatrix}, \quad c_B = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}, \quad \underline{Bx_B = b} \implies x_B = \hat{b} = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}$$

$$\mathcal{N} = \left\{ \qquad\qquad \right\}, \quad N = \begin{bmatrix} \qquad\qquad\qquad \\ \\ \\ \end{bmatrix}, \quad c_N = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}$$

$$\underline{B^\top y = c_B} \implies y = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix} \qquad \implies \qquad \underline{\hat{c}_N = c_N - N^\top y} = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}$$

$\boxed{\hat{c}_N \ge 0 \text{ ?: stop, optimum}}$ $\quad \hat{c}_N \xrightarrow[\text{of min}]{\text{index from } \mathcal{N}} t = \overset{\text{entering}}{\boxed{\quad}} \to \underline{B\hat{A}_t = A_t} \implies \hat{A}_t = \begin{bmatrix} \hat{a}_{1,t} \\ \vdots \\ \hat{a}_{m,t} \end{bmatrix} = \begin{bmatrix} \qquad \\ \\ \\ \end{bmatrix}$

$\boxed{\hat{A}_t \le 0 \text{ ?: stop, unbounded}}$ $\quad \left\{ \frac{\hat{b}_i}{\hat{a}_{i,t}} \right\} = \left\{ \qquad\qquad\qquad\qquad \right\} \xrightarrow[\text{min over } \hat{a}_{i,t} > 0]{\text{index from } \mathcal{B} \text{ of}} s = \overset{\text{leaving}}{\boxed{\quad}}$

$$\mathcal{B} = \left\{ \qquad \right\}, \quad B = \begin{bmatrix} \qquad \end{bmatrix}, \quad c_B = \begin{bmatrix} \quad \end{bmatrix}, \quad \underline{Bx_B = b} \implies x_B = \hat{b} = \begin{bmatrix} \quad \end{bmatrix}$$

$$\mathcal{N} = \left\{ \qquad \right\}, \quad N = \begin{bmatrix} \qquad \end{bmatrix}, \quad c_N = \begin{bmatrix} \quad \end{bmatrix}$$

$$\underline{B^\top y = c_B} \implies y = \begin{bmatrix} \quad \end{bmatrix} \qquad \implies \qquad \underline{\hat{c}_N = c_N - N^\top y} = \begin{bmatrix} \quad \end{bmatrix}$$

$\boxed{\hat{c}_N \geq 0 \text{ ?: stop, optimum}}$ $\quad \hat{c}_N \xrightarrow[\text{of min}]{\text{index from } \mathcal{N}} \quad t = \overset{\text{entering}}{\boxed{\quad}} \to \underline{B\hat{A}_t = A_t} \implies \hat{A}_t = \begin{bmatrix} \hat{a}_{1,t} \\ \vdots \\ \hat{a}_{m,t} \end{bmatrix} = \begin{bmatrix} \quad \end{bmatrix}$

$\boxed{\hat{A}_t \leq 0 \text{ ?: stop, unbounded}}$ $\quad \left\{ \frac{\hat{b}_i}{\hat{a}_{i,t}} \right\} = \left\{ \qquad \right\} \xrightarrow[\text{min over } \hat{a}_{i,t} > 0]{\text{index from } \mathcal{B} \text{ of}} \quad s = \overset{\text{leaving}}{\boxed{\quad}}$

$$\mathcal{B} = \left\{ \qquad \right\}, \quad B = \begin{bmatrix} \qquad \end{bmatrix}, \quad c_B = \begin{bmatrix} \quad \end{bmatrix}, \quad \underline{Bx_B = b} \implies x_B = \hat{b} = \begin{bmatrix} \quad \end{bmatrix}$$

$$\mathcal{N} = \left\{ \qquad \right\}, \quad N = \begin{bmatrix} \qquad \end{bmatrix}, \quad c_N = \begin{bmatrix} \quad \end{bmatrix}$$

$$\underline{B^\top y = c_B} \implies y = \begin{bmatrix} \quad \end{bmatrix} \qquad \implies \qquad \underline{\hat{c}_N = c_N - N^\top y} = \begin{bmatrix} \quad \end{bmatrix}$$

$\boxed{\hat{c}_N \geq 0 \text{ ?: stop, optimum}}$ $\quad \hat{c}_N \xrightarrow[\text{of min}]{\text{index from } \mathcal{N}} \quad t = \overset{\text{entering}}{\boxed{\quad}} \to \underline{B\hat{A}_t = A_t} \implies \hat{A}_t = \begin{bmatrix} \hat{a}_{1,t} \\ \vdots \\ \hat{a}_{m,t} \end{bmatrix} = \begin{bmatrix} \quad \end{bmatrix}$

$\boxed{\hat{A}_t \leq 0 \text{ ?: stop, unbounded}}$ $\quad \left\{ \frac{\hat{b}_i}{\hat{a}_{i,t}} \right\} = \left\{ \qquad \right\} \xrightarrow[\text{min over } \hat{a}_{i,t} > 0]{\text{index from } \mathcal{B} \text{ of}} \quad s = \overset{\text{leaving}}{\boxed{\quad}}$