

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

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

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

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

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

$\hat{c}_N \geq 0 ?:$ stop with optimum	\hat{c}_N	index of min	$t = \boxed{\quad}$	\rightarrow	$\underline{B\hat{A}_t = A_t} \implies \hat{A}_t = \begin{bmatrix} \hat{a}_{1,t} \\ \vdots \\ \hat{a}_{m,t} \end{bmatrix} = \begin{bmatrix} & \\ & \\ & \end{bmatrix}$
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$\hat{A}_t \leq 0 ?:$ stop, unbounded	$\left\{ \frac{\hat{b}_i}{\hat{a}_{i,t}} \right\} = \left\{ \quad \right\}$	index of min over $\hat{a}_{i,t} > 0$	$s = \boxed{\quad}$
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$\hat{c}_N \geq 0$?: stop with optimum

 $\hat{c}_N \xrightarrow[\min]{\text{index of}} t = \boxed{\quad} \rightarrow \underline{B\hat{A}_t = A_t} \implies \hat{A}_t = \begin{bmatrix} \hat{a}_{1,t} \\ \vdots \\ \hat{a}_{m,t} \end{bmatrix} = \begin{bmatrix} & \\ & \end{bmatrix}$

$\hat{A}_t \leq 0$?: stop, unbounded

 $\left\{ \frac{\hat{b}_i}{\hat{a}_{i,t}} \right\} = \left\{ \quad \right\} \xrightarrow[\min \text{ over } \hat{a}_{i,t} > 0]{\text{index of}} s = \boxed{\quad}$

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