After discarding zero rows, if the remaining is consistent, the given system is consistent. In the consistency case starting from the bottom and going upward considering the equation corresponding to each row one can find the unknowns successively $(x_n, x_{n-1}, ...)$, some of which are taken as parameter when possible.

When the echelon form of the system is, for instance

$$\begin{bmatrix} 2 & 0 & -3 & 4 & \vdots & 1 \\ 0 & 0 & 0 & 0 & \vdots & 6 \\ 0 & 0 & 0 & 0 & \vdots & 0 \end{bmatrix}$$

the system is inconsistent (no solution).

If the echelon XX, for instance,

$$\begin{bmatrix} XX & XX & -3 & 4 & \vdots & 1 \\ 0 & 0 & 0 & 2 & \vdots & 6 \end{bmatrix}$$

we have consistency. Then

$$\begin{aligned} &2x_4 = 6 \Rightarrow x_4 = 3 \\ &2x_1 + x_2 - 3x_3 + 4.3 = 1 \\ &\Rightarrow 2x_1 + x_2 - 3x_3 = -11 \\ &\quad x_1 = s, x_3 = t \Rightarrow x_2 = -11 - 2s + 3t \\ &\quad S = [s, -11 - 2s + 3t, t, 3] \end{aligned}$$

When the echelon form is

$$\begin{bmatrix} 1 & -3 & \vdots & 4 \\ 0 & 2 & \vdots & 3 \\ 0 & 0 & \vdots & -1 \\ 0 & 0 & \vdots & 0 \\ 0 & 0 & \vdots & 0 \end{bmatrix}$$