

Step-1

Suppose column 4 of a 3 b 5 matrixes is all zeros. Then x_4 is certainly a free variable

Step-2

In the solutions to $Rx = 0$, one group of unknowns contains the pivot variables, corresponding to columns with pivots. The other group is made up of the free variables, corresponding to columns without pivots. Reverse their signs to find the pivot variables (not free) in the special solutions.

Step-3

$$x = \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{bmatrix} = x_4 \begin{bmatrix} a_1 \\ a_2 \\ a_3 \\ 1 \\ a_5 \end{bmatrix} + x + \text{linear combination of } x_1, x_2, x_3, x_4$$

The special solution

and One special solution is $(-1, 0, 0, 1, 0)$

$$x = \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{bmatrix} = x_4 \begin{bmatrix} a_1 \\ a_2 \\ a_3 \\ 1 \\ a_5 \end{bmatrix} + x + \text{linear combination of } x_1, x_2, x_3, x_4$$

Therefore, the special solution for this variable is the vector

and its special solution is $(-1, 0, 0, 1, 0)$.