

$$\begin{array}{l} x + y = 1 \\ z - y = 0 \\ x + z = 1 \end{array} \Leftrightarrow \begin{array}{l} x + y - 1 = 0 \\ z - y = 0 \\ x + z - 1 = 0 \end{array} \Leftrightarrow \begin{pmatrix} 1 & 1 & 0 & -1 \\ 0 & -1 & 1 & 0 \\ 1 & 0 & 1 & -1 \end{pmatrix} \cdot \begin{pmatrix} x \\ y \\ z \\ 1 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}$$