

$$\begin{cases} x_1 + 2x_3 + x_5 = 2 \\ -x_1 + x_2 - x_3 + x_4 = -1 \\ x_1 - x_2 + x_3 + 2x_5 = 2 \\ -x_1 + 2x_2 + x_4 - x_5 = -1 \end{cases}$$

Total matrix

$$\begin{matrix} \textcircled{-1} & \textcircled{1} \\ \downarrow & \downarrow \\ \downarrow & \downarrow \\ \downarrow & \downarrow \end{matrix} \left[\begin{array}{cccccc} \textcircled{1} & 0 & 2 & 0 & 1 & 2 \\ \textcircled{-1} & 1 & -1 & 1 & 0 & -1 \\ \textcircled{1} & -1 & 1 & 0 & 2 & 2 \\ \textcircled{-1} & 2 & 0 & 1 & -1 & -1 \end{array} \right]$$

$$\begin{matrix} \textcircled{-2} & \textcircled{1} \\ \downarrow & \downarrow \\ \downarrow & \downarrow \\ \downarrow & \downarrow \end{matrix} \left[\begin{array}{cccccc} \textcircled{1} & 0 & 2 & 0 & 1 & 2 \\ 0 & \textcircled{1} & 1 & 1 & 1 & 1 \\ 0 & \textcircled{-1} & -1 & 0 & 1 & 0 \\ 0 & \textcircled{2} & 2 & 1 & 0 & 1 \end{array} \right]$$

$$\begin{matrix} \textcircled{1} \\ \downarrow \\ \downarrow \end{matrix} \left[\begin{array}{cccccc} \textcircled{1} & 0 & 2 & 0 & 1 & 2 \\ 0 & \textcircled{1} & 1 & 1 & 1 & 1 \\ 0 & 0 & 0 & \textcircled{1} & 2 & 1 \\ 0 & 0 & 0 & \textcircled{-1} & -2 & -1 \end{array} \right]$$

$$\begin{matrix} \textcircled{-1} \\ \downarrow \\ \downarrow \end{matrix} \left[\begin{array}{cccccc} \textcircled{1} & 0 & 2 & 0 & 1 & 2 \\ 0 & \textcircled{1} & 1 & 1 & 1 & 1 \\ 0 & 0 & 0 & \textcircled{1} & 2 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{array} \right]$$

$$\left[\begin{array}{cccccc} \textcircled{1} & 0 & 2 & 0 & 1 & 2 \\ 0 & \textcircled{1} & 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & \textcircled{1} & 2 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{array} \right]$$