

$$\begin{cases} -7 + 2r - 4s = x_1 \\ 1 + r + s = x_2 \\ 5 + r - s = x_3 \end{cases}$$

$\Leftrightarrow$

$$\begin{cases} 2r - 4s - x_1 = 7 \\ 1 + r + s = x_2 \\ -4 + 2s = x_2 - x_3 \end{cases}$$

$\Leftrightarrow$

$$\begin{cases} 2r - 4s - x_1 = 7 \\ r = x_2 - \left(\frac{x_2}{2} - \frac{x_3}{2} + 2\right) - 1 \\ s = \frac{x_2}{2} - \frac{x_3}{2} + 2 \end{cases}$$

$$2 \cdot \left(\frac{x_2}{2} + \frac{x_3}{2} - 3\right) - 4 \cdot \left(\frac{x_2}{2} - \frac{x_3}{2} + 2\right) - x_1 = 7$$

$$-x_1 - x_2 + 3x_3 - 12 = 7$$

$$E: x_1 + x_2 - 3x_3 = 19$$