

$$1. \begin{aligned} 2x_1 - 4x_2 + 5x_3 + 3x_4 &= 0, \\ 3x_1 - 6x_2 + 4x_3 + 2x_4 &= 0, \\ 4x_1 - 8x_2 + 17x_3 + 11x_4 &= 0. \end{aligned}$$

$$2. \begin{aligned} 3x_1 + 2x_2 + x_3 + 3x_4 + 5x_5 &= 0, \\ 6x_1 + 4x_2 + 3x_3 + 5x_4 + 7x_5 &= 0, \\ 9x_1 + 6x_2 + 5x_3 + 7x_4 + 9x_5 &= 0, \\ 3x_1 + 2x_2 + 4x_4 + 8x_5 &= 0. \end{aligned}$$

$$3. \begin{aligned} 3x_1 + 5x_2 + 2x_3 &= 0, \\ 4x_1 + 7x_2 + 5x_3 &= 0, \\ x_1 + x_2 - 4x_3 &= 0, \\ 2x_1 + 9x_2 + 6x_3 &= 0. \end{aligned}$$

$$4. \begin{aligned} 6x_1 - 2x_2 + 2x_3 + 5x_4 + 7x_5 &= 0, \\ 9x_1 - 3x_2 + 4x_3 + 8x_4 + 9x_5 &= 0, \\ 6x_1 - 2x_2 + 6x_3 + 7x_4 + x_5 &= 0, \\ 3x_1 - x_2 + 4x_3 + 4x_4 - x_5 &= 0. \end{aligned}$$

$$5. \begin{aligned} x_1 - x_3 &= 0, \\ x_2 - x_4 &= 0, \\ -x_1 + x_3 - x_5 &= 0, \\ -x_2 + x_4 - x_6 &= 0, \\ -x_3 + x_5 &= 0, \\ -x_4 + x_6 &= 0. \end{aligned}$$

$$6. \begin{aligned} x_1 - x_3 + x_5 &= 0, \\ x_2 - x_4 + x_6 &= 0, \\ x_1 - x_2 + x_5 - x_6 &= 0, \\ x_2 - x_3 + x_6 &= 0, \\ x_1 - x_4 + x_5 &= 0. \end{aligned}$$

$$7. \begin{aligned} 5x_1 + 6x_2 - 2x_3 + 7x_4 + 4x_5 &= 0, \\ 2x_1 + 3x_2 - x_3 + 4x_4 + 2x_5 &= 0, \\ 7x_1 + 9x_2 - 3x_3 + 5x_4 + 6x_5 &= 0, \\ 5x_1 + 9x_2 - 3x_3 + x_4 + 6x_5 &= 0. \end{aligned}$$

$$8. \begin{aligned} 3x_1 + 4x_2 + x_3 + 2x_4 + 3x_5 &= 0, \\ 5x_1 + 7x_2 + x_3 + 3x_4 + 4x_5 &= 0, \\ 4x_1 + 5x_2 + 2x_3 + x_4 + 5x_5 &= 0, \\ 7x_1 + 10x_2 + x_3 + 6x_4 + 5x_5 &= 0. \end{aligned}$$