

$$(1A) \quad n_1 = 1, \quad n_2 = 2, \quad k_0 = -2$$

$$(1B) \quad \begin{pmatrix} 1 \\ -4 \\ -1 \\ 2 \end{pmatrix}; \quad \left(\begin{pmatrix} 0 \\ 1 \\ 1 \\ 0 \end{pmatrix}, \begin{pmatrix} -2 \\ 1 \\ 0 \\ 1 \end{pmatrix} \right)$$

$$(1C) \quad h = 1$$

$$(1D) \quad \begin{pmatrix} 4 & -5 \\ -3 & 2 \end{pmatrix}$$

$$(2A) \quad n_1 = 1, \quad n_2 = 2, \quad k_0 = 5$$

$$(2B) \quad \begin{pmatrix} 1 \\ 0 \\ 1 \end{pmatrix} + t \begin{pmatrix} -11 \\ 1 \\ 3 \end{pmatrix}; \quad \begin{pmatrix} 1 \\ 0 \\ 1 \end{pmatrix} + t_1 \begin{pmatrix} 2 \\ 1 \\ 0 \end{pmatrix} + t_2 \begin{pmatrix} 0 \\ 3 \\ 2 \end{pmatrix}$$

$$(2C) \quad \dim(E_h) = 1 \quad \forall h; \quad \begin{cases} y = 1 \\ 2x + 7z = 14 \end{cases} \quad \text{per } h = 1, \\ \begin{cases} (h-1)x - (1+6h)y = -7h^2 + h - 1 \\ (1-3h)y - (h-1)z = -4h^2 + h + 1 \end{cases} \quad \text{per } h \neq 1$$

$$(2D) \quad \frac{2}{11} \begin{pmatrix} 8 \\ 1 \\ -2 \end{pmatrix}$$

$$(2E) \quad k = 5, \quad h = \frac{6}{5}; \quad k = 6, \quad h = 2$$