

(1A) Entrambe 2

(1B) 3 poiché l'intersezione è generata da $-2e_1 - 9e_2 + 7e_3 + 9e_4$

$$(1C) \quad v_1 = \begin{pmatrix} 1 \\ 1 \\ 0 \\ 6 \end{pmatrix}, \quad v_2 = \begin{pmatrix} 0 \\ -1 \\ 1 \\ 3 \end{pmatrix}$$

$$(1D) \quad \begin{pmatrix} 2 \\ 1 \\ 1 \\ 15 \end{pmatrix}$$

$$(1E) \quad \begin{pmatrix} 8 \\ 1 \\ 7 \\ -1 \end{pmatrix}$$

$$(1F) \quad \begin{pmatrix} 4 \\ -7 \\ 11 \\ 7 \end{pmatrix}$$

(1G) No

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

(2B) $m_1 = 2, m_2 = 1, h_0 = -3$

$$(2C) \quad E_1 = \begin{pmatrix} -2 \\ 0 \\ 0 \end{pmatrix} + \text{Span} \left(\begin{pmatrix} 5 \\ -3 \\ 2 \end{pmatrix} \right); \quad E_{-2} = \begin{pmatrix} 1 \\ -1 \\ 0 \end{pmatrix} + \text{Span} \left(\begin{pmatrix} 3 \\ 2 \\ 0 \end{pmatrix}, \begin{pmatrix} 0 \\ 4 \\ 3 \end{pmatrix} \right)$$

$$(2D) \quad F_2 : 2x - 8y - 5z = -4; \quad F_{-3} : \begin{cases} x - 4y = 13 \\ 3y - 4z = -1 \end{cases}$$

(2E) Retta e piano incidenti in un punto per $h \notin \{-3, 4\}$, rette sghembe per $h = -3$, retta e piano paralleli per $h = 4$