

XIV

$$l_1: \begin{cases} x=1+t \\ y=2+t \\ z=4+2t \end{cases} \quad t \in \mathbb{R}$$

$$A = (1, 2, 4)$$

$$l_2: \begin{cases} x=-1-2s \\ y=3+s \\ z=-4-8s \end{cases} \quad s \in \mathbb{R}$$

$$B = (-1, 3, -4)$$

$$l_2: \begin{cases} x=-1-2t \\ y=3+t \\ z=-4-8t \end{cases} \quad t \in \mathbb{R}$$

$$\begin{cases} 1+t = -1-2s \\ 2+t = 3+s \\ 4+2t = -4-8s \end{cases} \Rightarrow \begin{cases} t = -2-2s \\ 2-2-2s = 3+s \\ 4+2(-2-2s) = -4-8s \end{cases} \Rightarrow$$

$$\Rightarrow \begin{cases} t = -2-2s \\ s = -1 \\ 4+2t = -4-8s \end{cases} \Rightarrow \begin{cases} t = 0 \\ s = -1 \end{cases}$$

$$4+2 \cdot 0 = -4-8 \cdot (-1) \\ 4 = 4$$

$$P = (1, 2, 4) = A$$

