

$$4. \quad \pi: \begin{cases} x = 1 - 2t \\ y = 5 + 4t \\ z = -2 + 6t \end{cases}$$

$$A = (1, 5, -2)$$

$$\sigma: \begin{cases} x = 5 + t \\ y = 1 - 2t \\ z = 3 - 3t \end{cases}$$

$$B = (5, 1, 3)$$

$$\vec{AB} = (-2, 4, 6)$$

$$\vec{AB} = (2, -4, 5)$$

$$\pi: \begin{cases} x = 1 - 2t + 4s \\ y = 5 + 4t - 4s \\ z = -2 + 6t + 5s \end{cases}$$