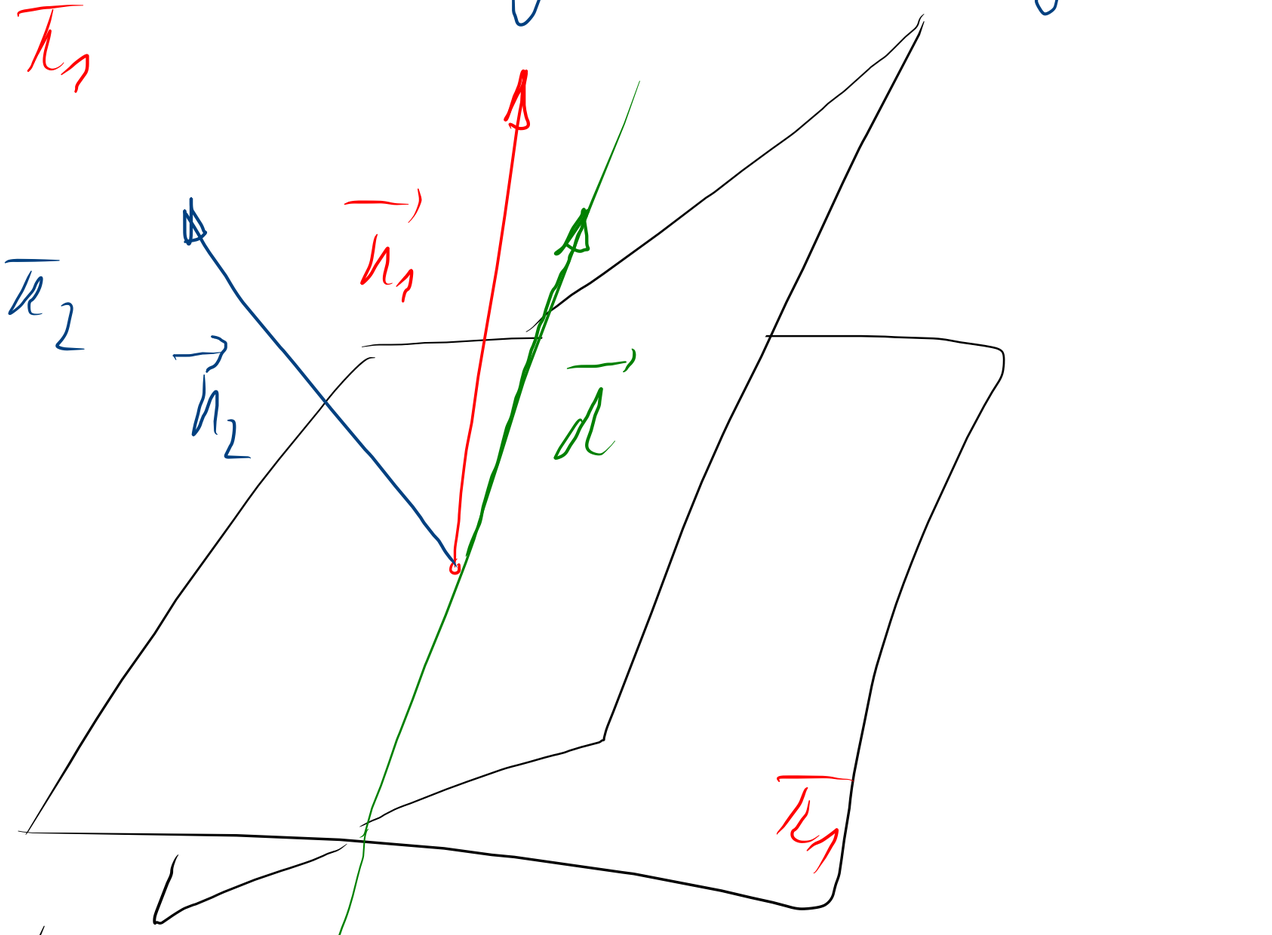
$x = 0$ $\quad y - z = 5 \quad z = 15$

$-y + 2z = 10 \quad y = 20$

$$d \begin{cases} x + y - z = 5 & \pi_1 \\ 2x - y + 2z = 10 & \pi_2 \end{cases}$$



$\vec{n_1} \times \vec{n_2}$ et $\vec{d}$ colinéaires

$$\begin{vmatrix} i & 1 & 2 \\ j & 1 & -1 \\ k & -1 & 2 \end{vmatrix} \longrightarrow \vec{d} = \begin{pmatrix} 1 \\ -4 \\ -3 \end{pmatrix}$$

$$\begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} 0 \\ 20 \\ 15 \end{pmatrix} + k \begin{pmatrix} 1 \\ -4 \\ -3 \end{pmatrix}$$

$$\begin{cases} x = -y + z + 5 \\ x = \frac{1}{2}y - z + 5 \end{cases}$$

L_1 L_2

$$\begin{cases} x = -\frac{1}{3}z + 5 \\ y = \frac{4}{3}z \\ z = 1z \end{cases}$$

$L_2 - L_1$:

$$0 = \frac{3}{2}y - 2z$$

$$y = \frac{4}{3}z$$

$$\begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} 5 \\ 0 \\ 0 \end{pmatrix} + k \begin{pmatrix} -1 \\ 4 \\ 3 \end{pmatrix}$$