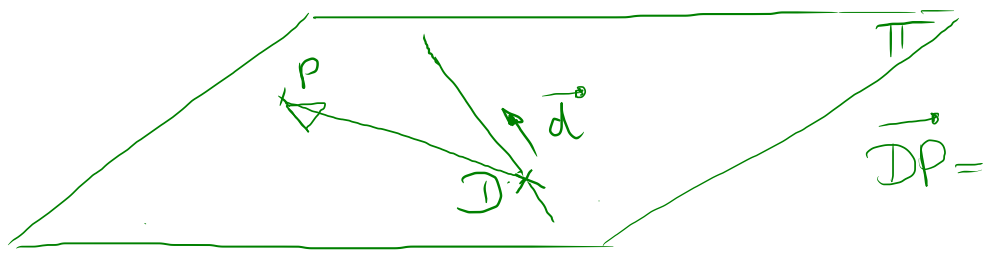
c) $\begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} 5 \\ 2 \\ -2 \end{pmatrix} + k\begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix} + n\begin{pmatrix} 0 \\ 1 \\ 0 \end{pmatrix}$

e) qui passe par le point $P(4;2;1)$ et qui contient la droite d'équation $(d) : \begin{cases} x = 2+k \\ y = 1-3k \\ z = 3+k \end{cases}$



$\overrightarrow{DP} = \begin{pmatrix} 4-2 \\ 2-1 \\ 1-3 \end{pmatrix}$

$\begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} 4 \\ 2 \\ 1 \end{pmatrix} + k\begin{pmatrix} 1 \\ -3 \\ 1 \end{pmatrix} + n\begin{pmatrix} 2 \\ 1 \\ -2 \end{pmatrix}$

5.6 e) $\begin{cases} x = 4+k+2n \\ y = 2-3k+n \\ z = 1+k-2n \end{cases} \begin{vmatrix} 1 \\ \\ 1 \end{vmatrix} \begin{matrix} \cdot 2 \\ \\ 1 \end{matrix}$

$\Rightarrow \begin{cases} x+z = 5+2k \\ 2y+z = 5-5k \end{cases} \begin{matrix} \cdot 5 \\ \cdot 2 \end{matrix}$

$\Rightarrow 5x+4y+7z = 35$

$\Rightarrow \pi : 5x+4y+7z-35 = 0$