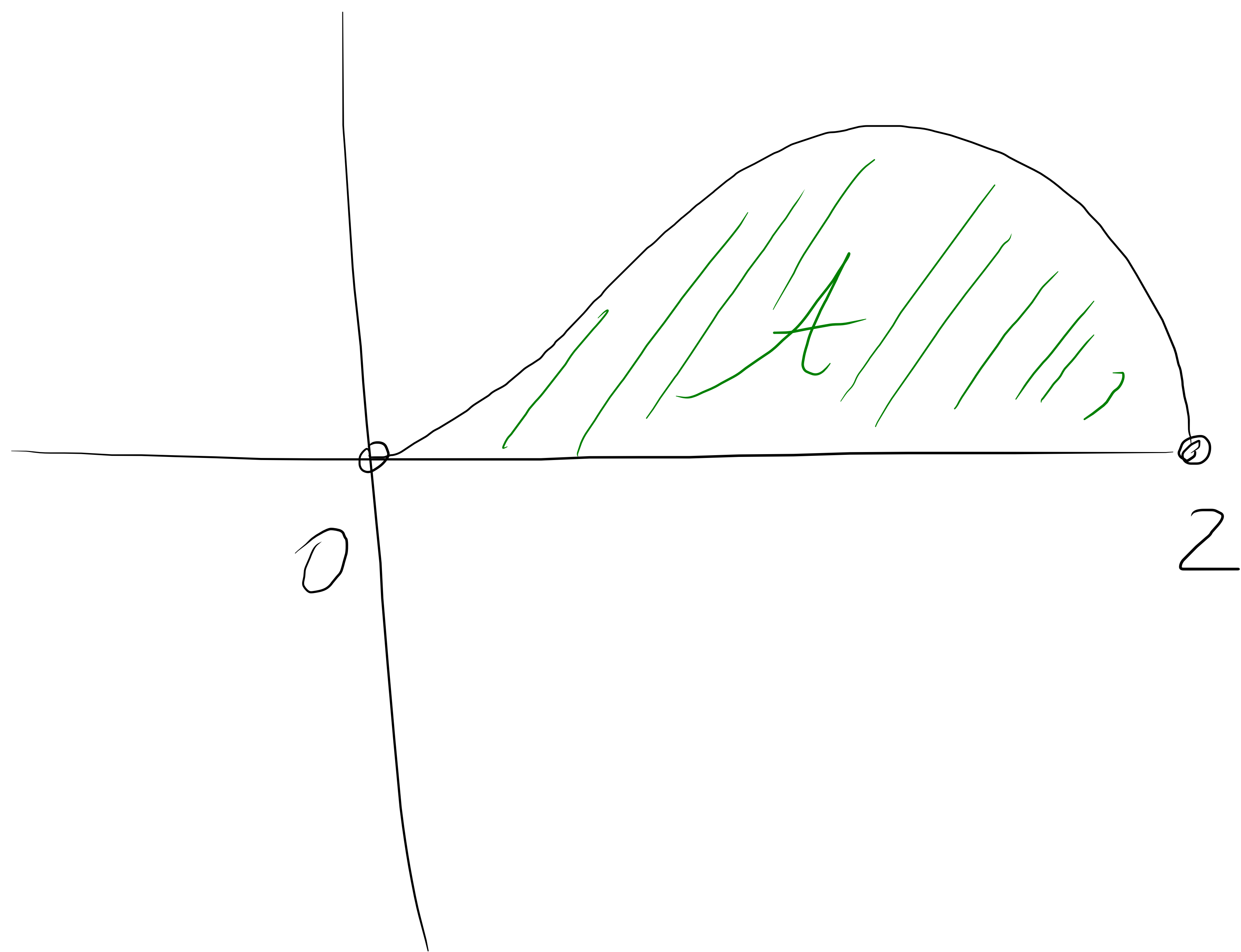


Aire sous la courbe

$$\int_0^2 f(x) dx = A$$

$$\begin{aligned} f(x) &= 2x^2 - x^3 \\ &= x^2(2-x) \end{aligned}$$



$$B = (l_1, l_2)$$

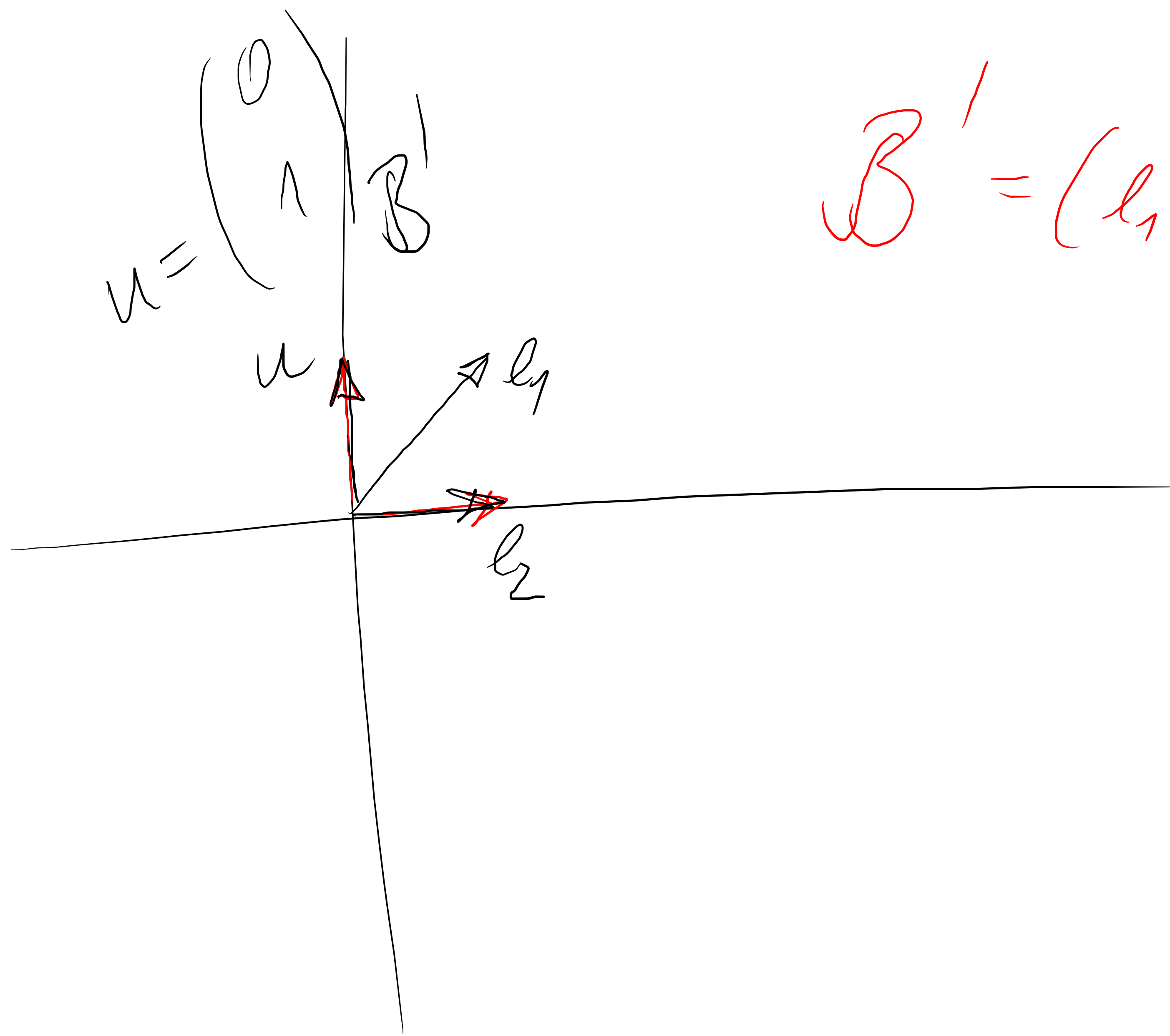
liste

$$u = \begin{pmatrix} u_1 \\ u_2 \end{pmatrix}_B$$

$$u_1 \cdot l_1 + u_2 \cdot l_2 = u$$

$$u_1 \begin{pmatrix} 1 \\ 1 \end{pmatrix} + u_2 \begin{pmatrix} 1 \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

$$u = \begin{pmatrix} 1 \\ -1 \end{pmatrix}_B$$



$$B' = (l_1', l_2')$$

$$\begin{pmatrix} 1 & 1 & 0 \\ 1 & 0 & 1 \end{pmatrix} \sim \begin{pmatrix} 1 & 1 & 0 \\ 0 & -1 & 1 \end{pmatrix}$$

$$\sim \begin{pmatrix} 1 & 1 & 0 \\ 0 & 1 & -1 \end{pmatrix} \sim \begin{pmatrix} 1 & 0 & 1 \\ 0 & 1 & -1 \end{pmatrix}$$

$$\Rightarrow u_1 = 1$$

$$u_2 = -1$$

$$\begin{pmatrix} x_1 \\ x_2 \\ x_3 \end{pmatrix} = k \begin{pmatrix} 1 \\ 2 \\ -1 \end{pmatrix} + h \begin{pmatrix} 1 \\ 0 \\ 1 \end{pmatrix} + \begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix}$$

$$k, h \in \mathbb{R}$$

$$\begin{cases} x_1 = k + h + 1 \\ x_2 = 2k + 2 \\ x_3 = -k + h + 3 \end{cases}$$

$$S = \left\{ (k+h+1; 2k+2; -k+h+3) \mid h, k \in \mathbb{R} \right\}$$