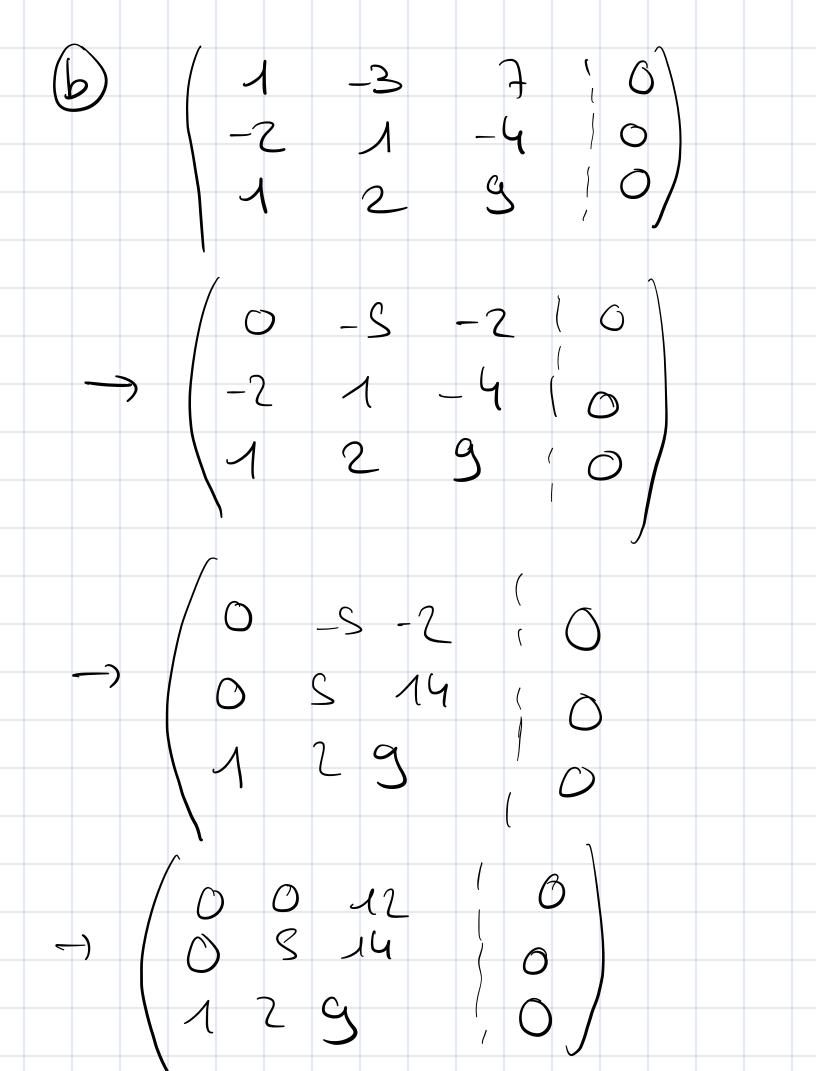
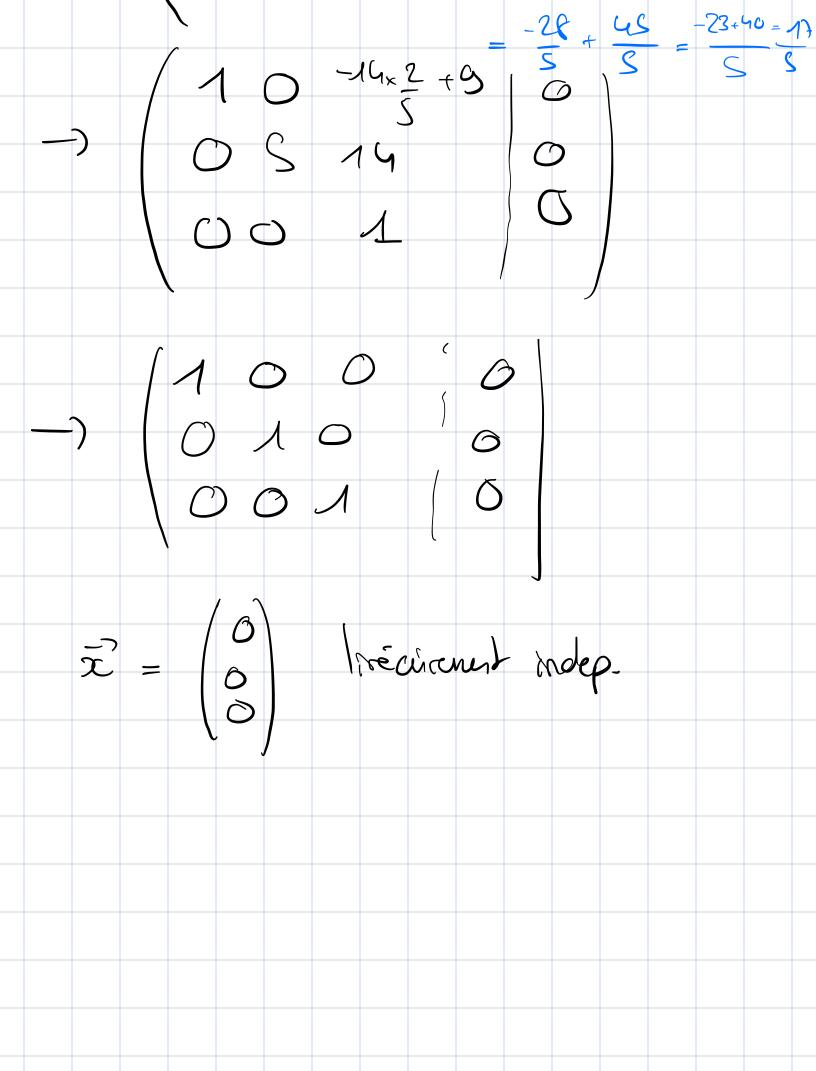
$$\begin{pmatrix}
2 & -5 & 8 \\
-2 & -7 & 1 \\
4 & 2 & 7
\end{pmatrix}
\begin{pmatrix}
x_1 \\
x_2 \\
x_4
\end{pmatrix}
= 6$$





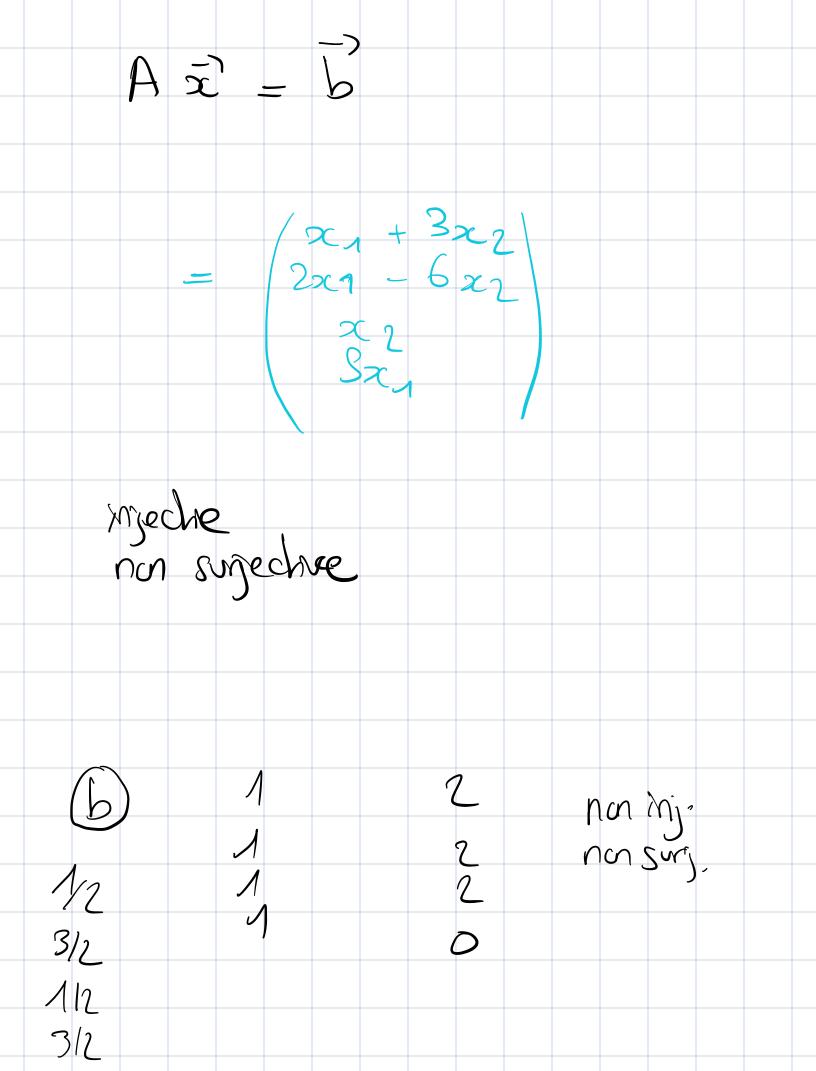
C) in
$$S$$
 de solo car que 2 èqua.

Exerce 2

A = $\begin{pmatrix} 1 & 2 & 8 \\ 2 & 9 & 16 \\ 3 & 6 & 29 \end{pmatrix}$

Exerce 3
 $A = \begin{pmatrix} 2 & 3 \\ 2 & -6 \\ 5 & 5 \end{pmatrix}$

$$A = \begin{pmatrix} 2 & -6 \\ 0 & 5 \end{pmatrix}$$



(cos 0 - 2m 6) 8m 6 0050 90°/3 ×2 $= 60^{\circ}$ $\left(\begin{array}{cccc}
\cos \frac{\pi}{3} & -8\pi \frac{\pi}{3} \\
8\pi \frac{\pi}{3} & \cos \frac{\pi}{3}
\end{array}\right)$ $\frac{\pi}{6} \times 2 = \overline{\pi}$ $= \left(-\sqrt{3}/2 - 1/2\right)$ $= \left(1/2 - \sqrt{3}/2\right)$ injeche. svjeche. Surjedne : It les innages ont au mons un culécedent, (b)

injeche: chaque vectour ont exaderet une mage

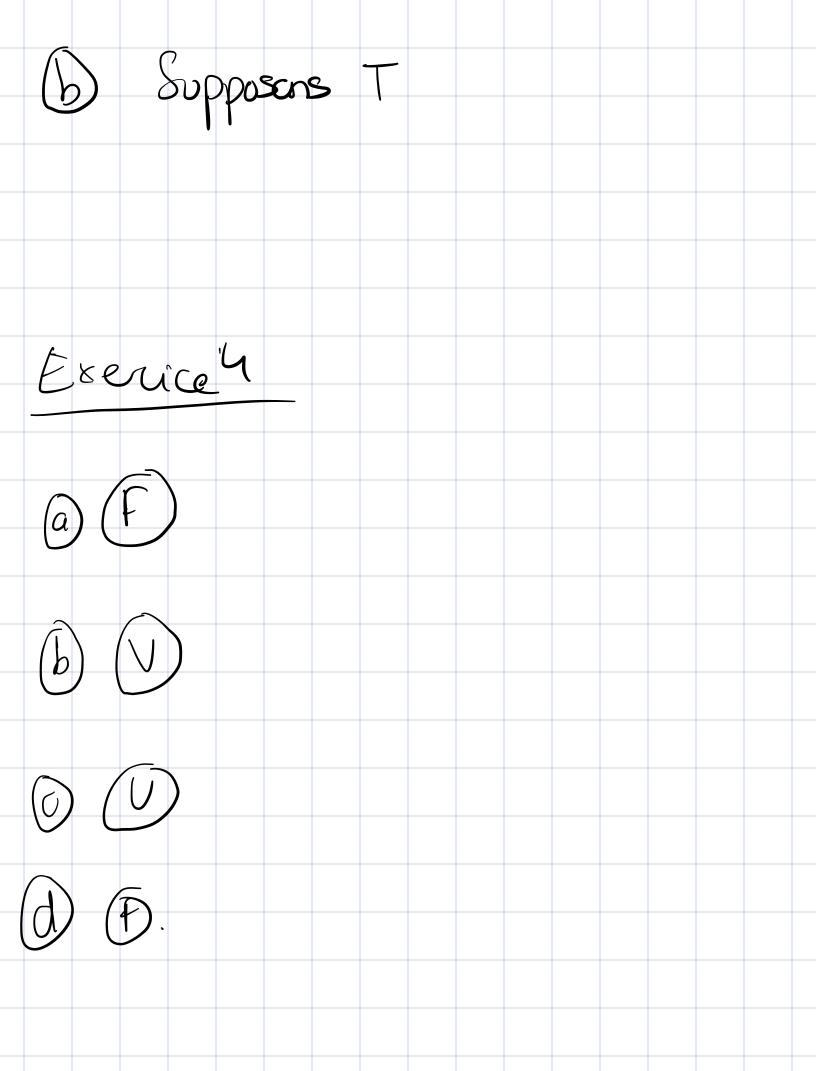
Surject. Non inject. $\exists z_1, x_2 \ \exists (y_1) = \beta(y_2)$

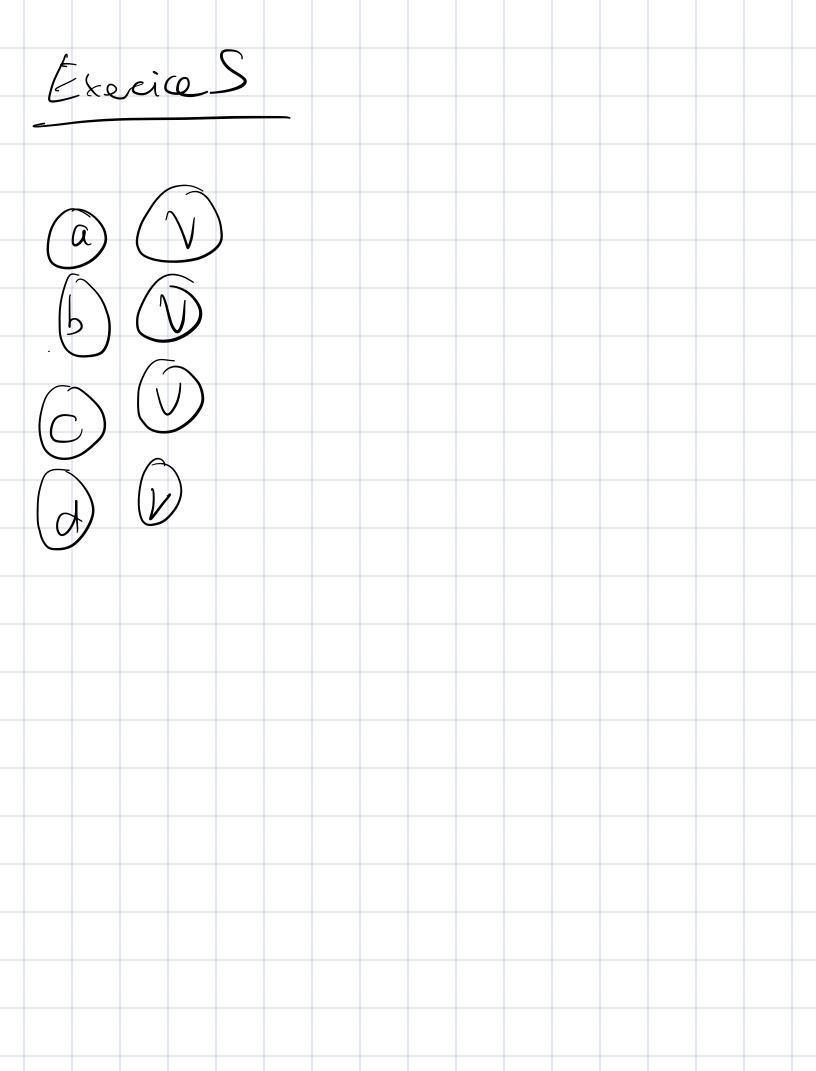
 $\exists x \forall y f(x) = y$

 $T\left(\frac{1}{2}\right) = T\left(\frac{1}{2}\right)$

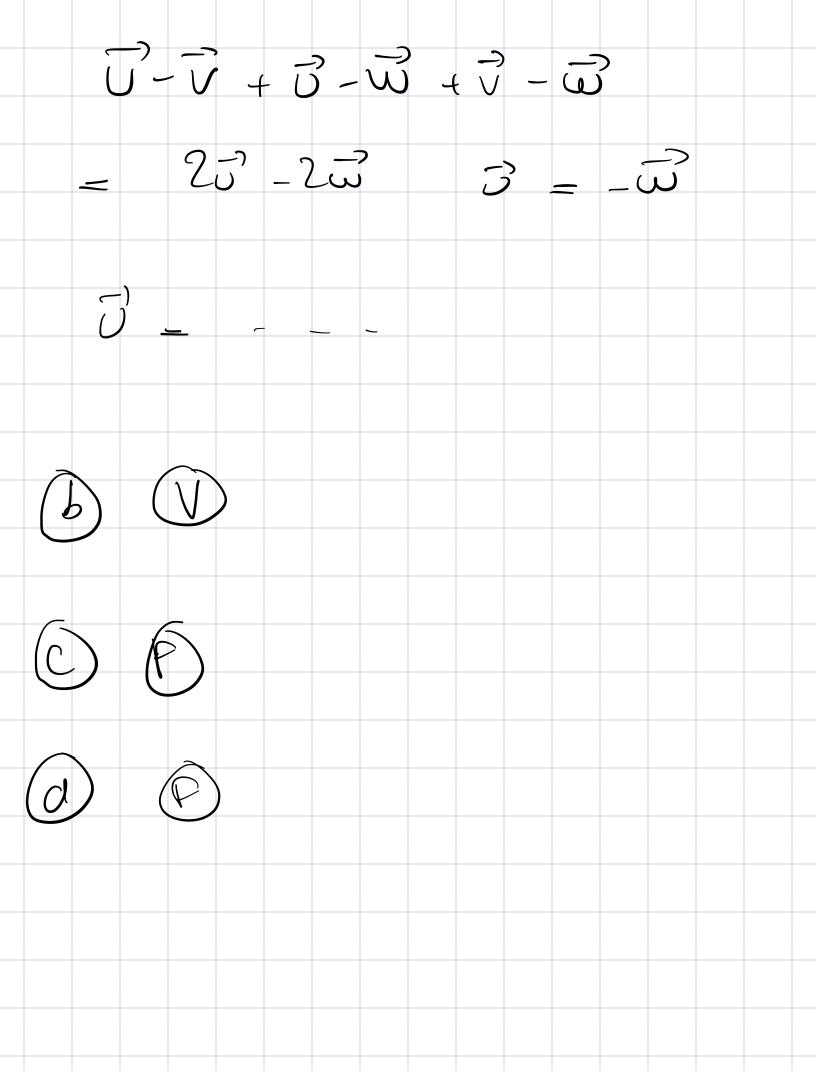
 $T(\vec{x}_1 - \vec{x}_2) = T(\vec{x}_1) - T(\vec{x}_2)$

 $danc = \overline{x}_1 = \overline{x}_2$





$$\begin{array}{c} \mathcal{E}_{1} \\ \mathcal{E}_{1} \\ \mathcal{E}_{2} \\ \mathcal{E}_{3} \\ \mathcal{E}_{4} \\ \mathcal{E}_{3} \\ \mathcal{E}_{4} \\ \mathcal{E}$$



$$T(V_1)$$
, $T(c_{V_1})$

$$T(V_1)$$
; $cT(V_1)$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$V = C_{1}V_{1} + ... + C_{K}V_{K}$$

$$T(V) = C_{1}(V_{1}) ... = -0.$$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$T(V) = C_{1}(V_{1}) ... = -0.$$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + C_{2}V_{2} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + C_{2}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + C_{2}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{K} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C = C_{1}V_{1} + ... + C_{K}V_{1} = 0$$

$$C$$

Ex8 Supposons que Tom Surjechne. Alas 32 E 12m r.g $\forall \vec{G} \in \mathbb{R}^{n} \left(T(\vec{G}) \neq \vec{Z} \right)$ or 8' les colones de A engondent a lors

(b) => Supposons Tinjeche. Cela signifie que V DE IRM, $\exists 1 \ \hat{x} \in \mathbb{R}^n \ b.q \ \Delta \hat{x} = \vec{b}$ avec la comb des facteurs (cy...cn) donc les colones de A sent notep.

