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

$$A^{-1} = \begin{pmatrix} 3 - 1 \\ -2 \end{pmatrix}$$

$$A^{-1} = \left( \begin{array}{c} 1 - 1 \\ 0 \end{array} \right) \left( \begin{array}{c} 1 \\ -2 \end{array} \right)$$

Exercia 3

(a) der (012)

= 4 de/ (12)

= 4.1. del (1)

= 4

C) 
$$der(C) = 0$$

$$der(\frac{387}{654})$$

$$\frac{321}{321}$$

$$= 9 \cdot (-3) \cdot (\frac{1-4}{28}) - 6 \cdot (-6) \cdot (\frac{1-7}{28})$$

$$= -27 + 36 - 9 = 0$$

$$\begin{pmatrix} 987 \\ 684 \\ 684 \\ 321 \\ 321 \end{pmatrix}$$

$$9.5-1+8.4.3+7.6.2$$
  
-  $2.4.9-1.6.8-3.5.7$ 

$$der(E) = der(1004)$$

$$= 1.(-1) \cdot der(141)$$

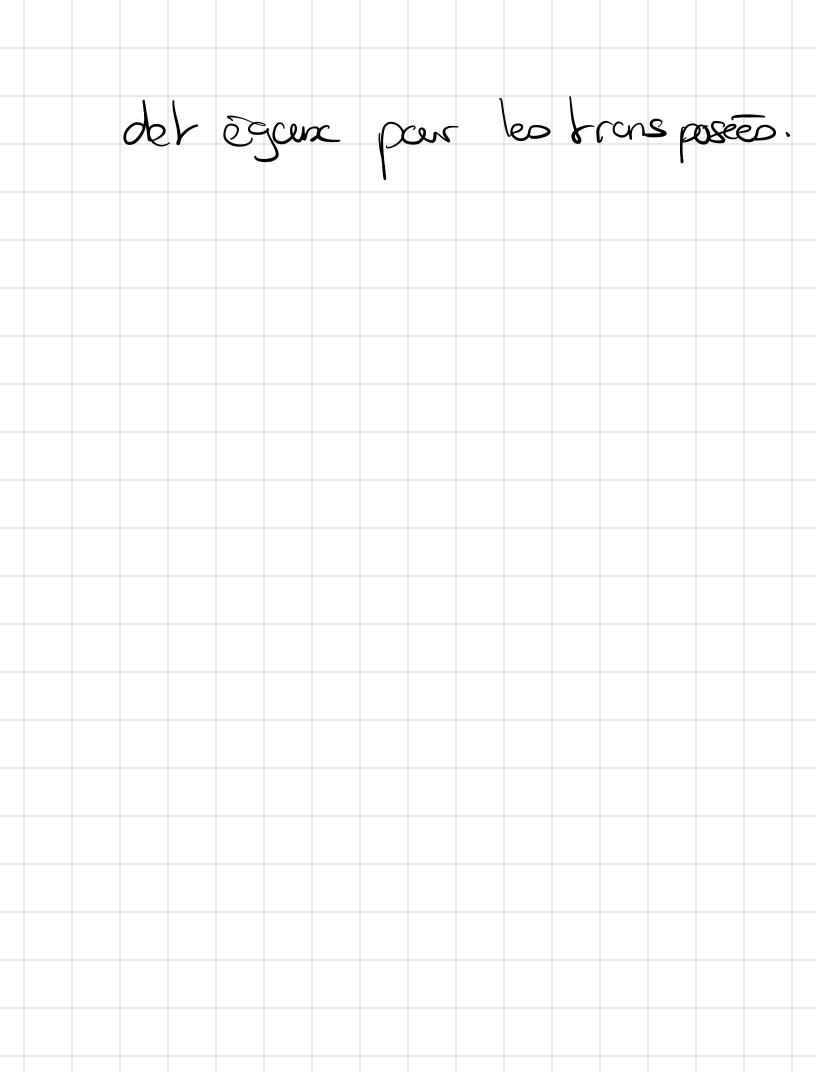
$$= 1.(-1) \cdot der(141)$$

$$= der(141) \cdot der(141)$$

$$= der(141)$$

$$= -1 - 20 + 11 = -10.$$

$$+ 4.(-25) = -94.$$



$$= 1 \cdot \left[ \begin{array}{c} 41 \\ 31 \end{array} \right]$$

$$= 1 + (-10)$$

$$de \begin{pmatrix} 0 & 4 & 1 \\ 1 & 23 \\ 1 & 31 \end{pmatrix}$$

$$= - \begin{vmatrix} 4 & 1 \\ 23 \end{vmatrix}$$

$$= -1 + 10 = 3$$

$$\frac{det}{det} \begin{pmatrix} 164 \\ 041 \\ 131 \end{pmatrix}$$

$$= 1 \cdot \begin{vmatrix} 41 \\ 31 \end{vmatrix}$$

$$= 1 \cdot \begin{vmatrix} 64 \\ 41 \end{vmatrix}$$

$$= 1 \cdot \begin{vmatrix} 64 \\ 41 \end{vmatrix}$$

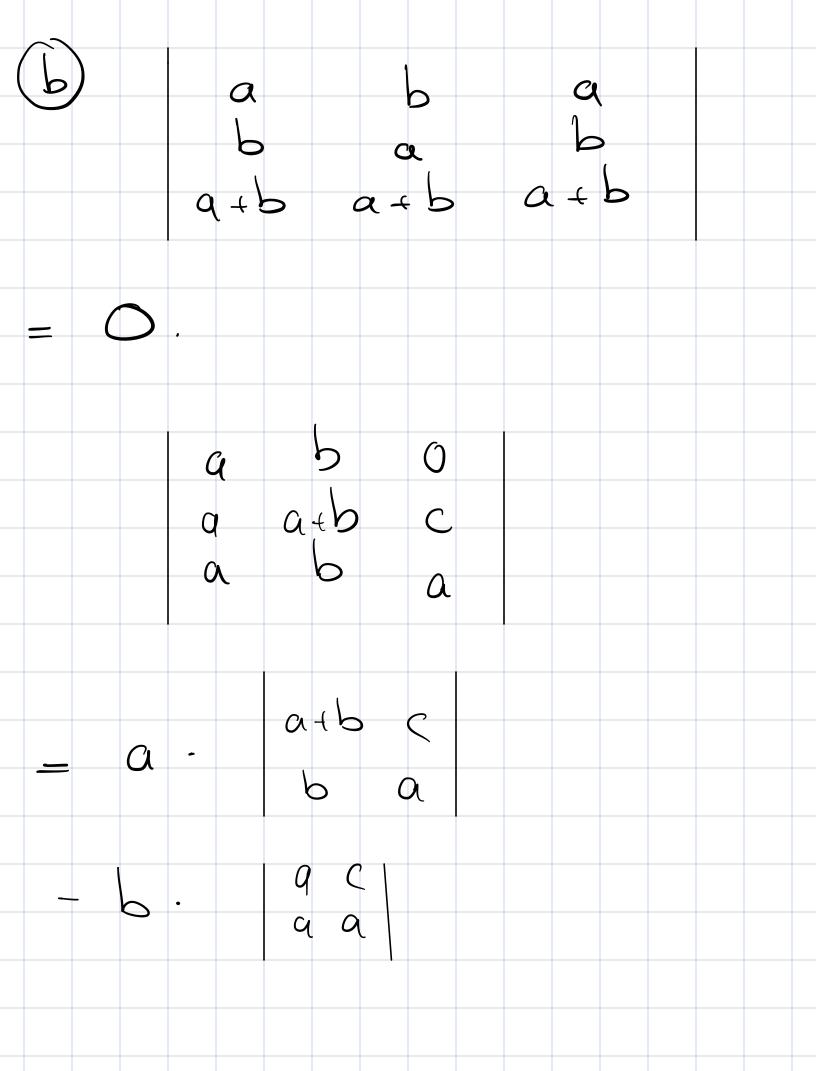
$$= -9.$$

Exercise S AB invesible  $\Rightarrow (AB)^{-1} = B^{-1}A^{-1}$ Si A ou B non inversible on perella bigalaté denc un re peut pas rever et annères

- 6. 210 

-0(--)

- 4 0 S O 

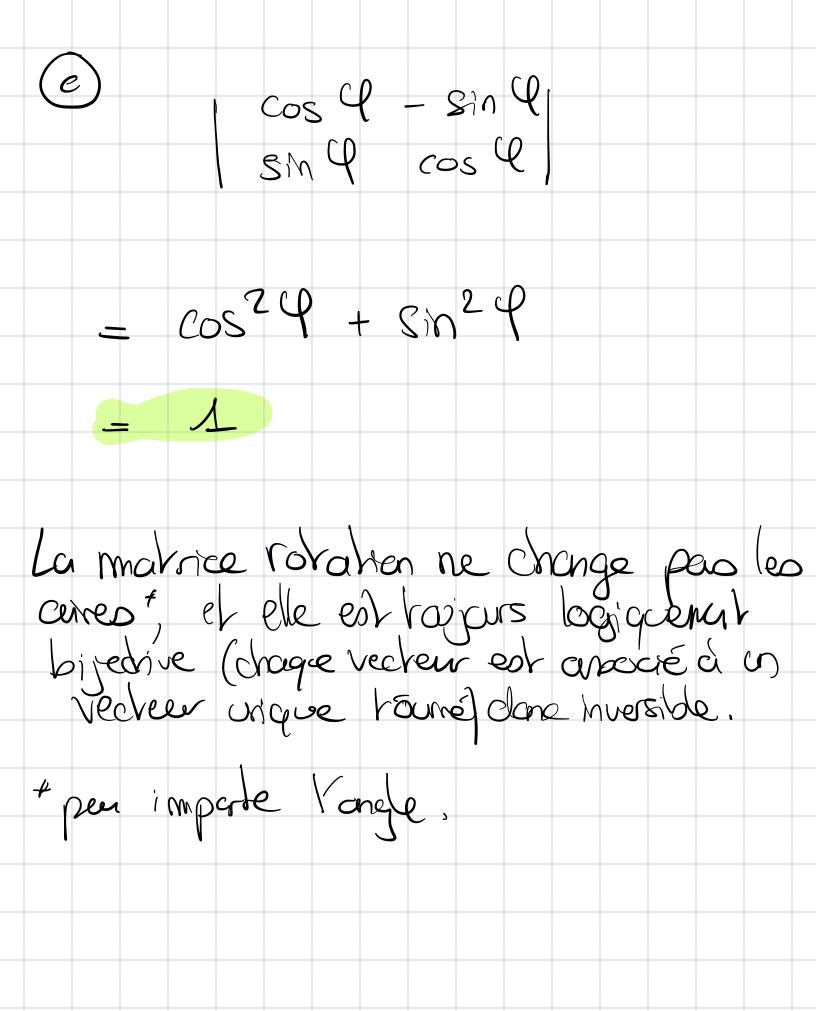


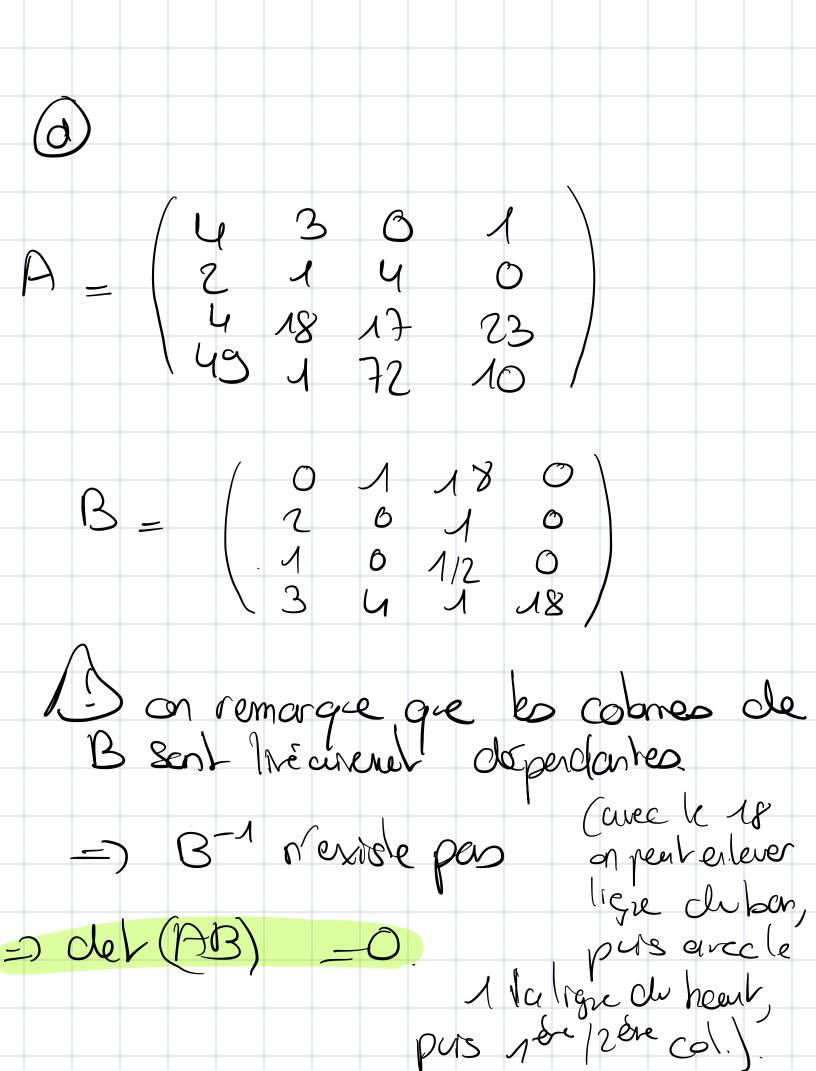
$$= a \cdot ((a+b)(a) - cb)$$

$$= b \cdot (a^2 - ac)$$

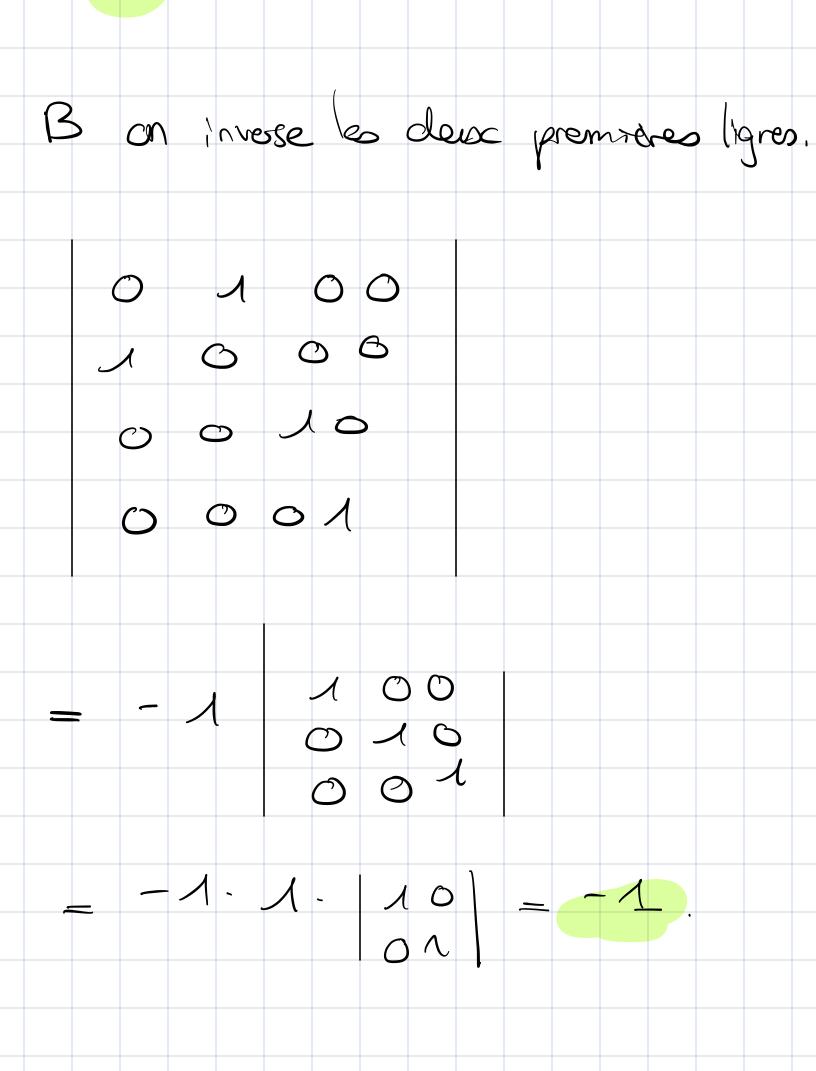
$$= -abc + a(a^2 + ab)$$

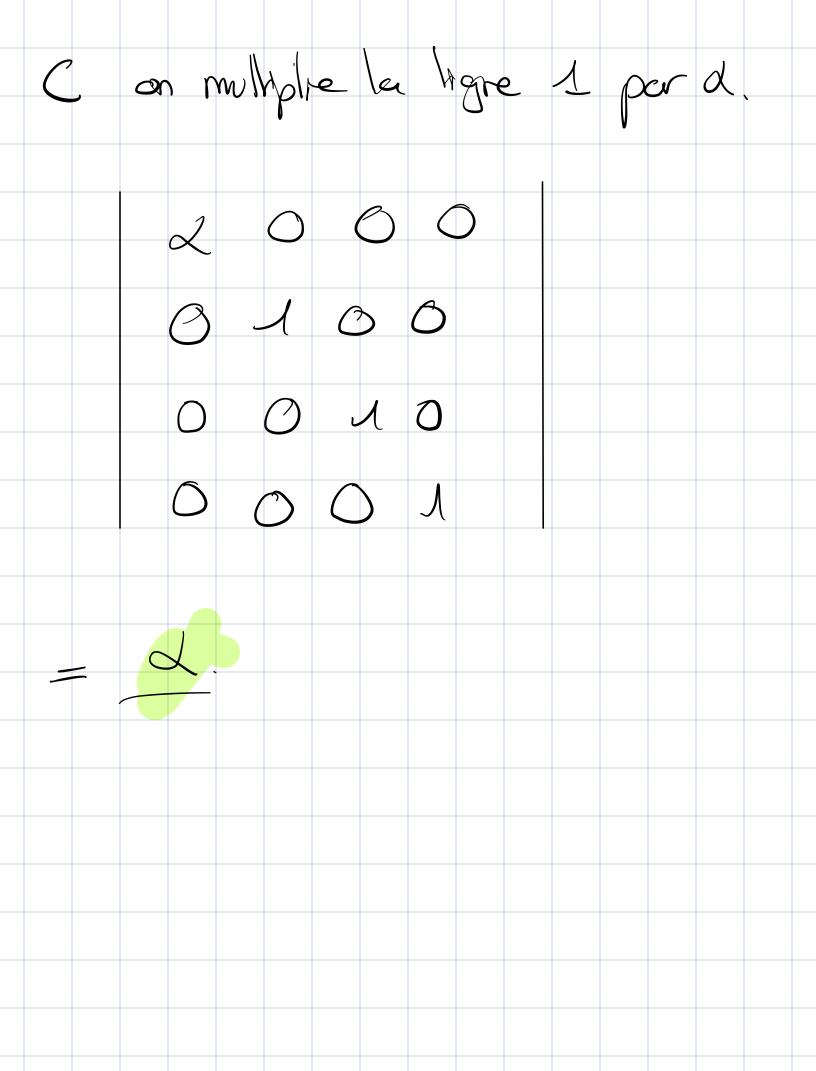
$$= -a^2b + abc$$





Exercise + (A). On ajoure 2. la tigne 3. 0 0 0 0100 010 021





E	\ \ \ \	೮८	ice	2	3											
	8	, C	ler	C	ce	10/c	rec	M	de	Me	ى	7				
				4	<u></u>	1	Ne	eul	eme	ent	d	èpe	n d	chle	స	
					<b>2</b> )	10	mal	nne	2	ncr	\ \delta()	w	r b	Q		
				•	EJ		y Q	F (								

Seme on renel of Takes der (A-A-1) = der (I) der (A). der (A-1) = es der (A) =

$$C \qquad U^{T} = U^{-1}$$

$$del U \cdot del (U^{T}) = del (I_{n})$$

$$= 1$$

$$del (U) = -1$$

$$del (U) = -1$$

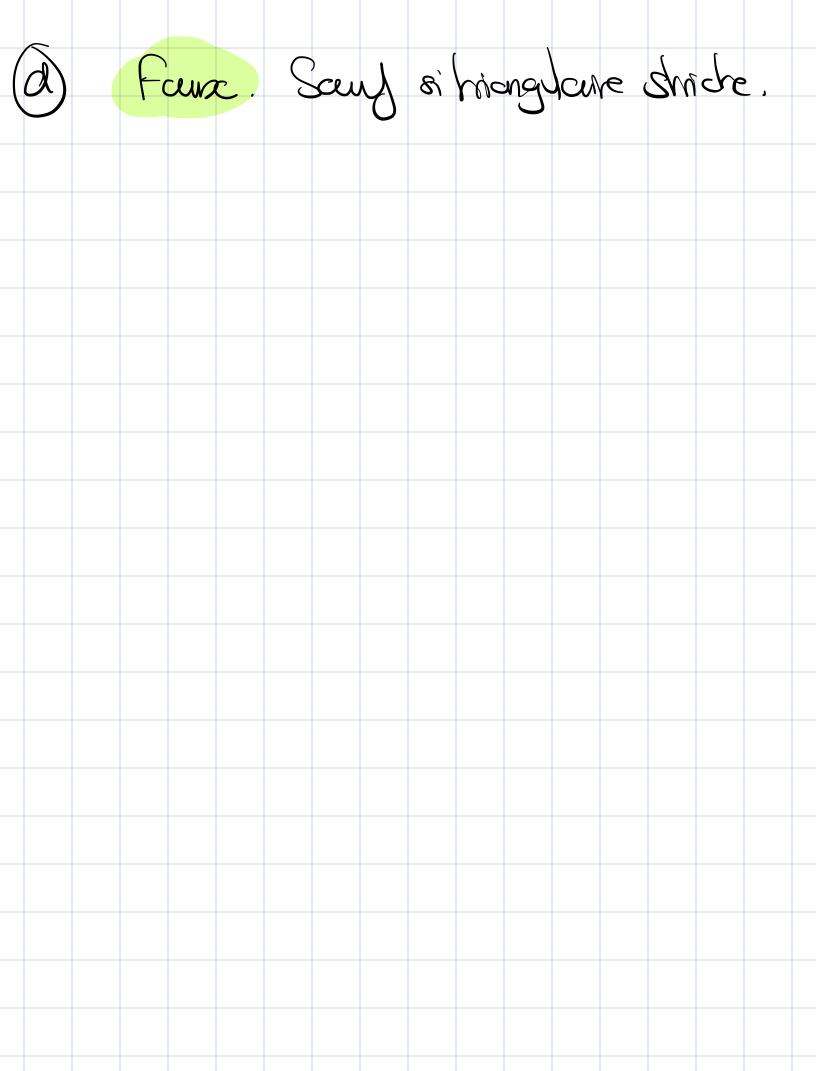
 $del(A^3) = 0$ A3 non huesible. det (A) . det (A) - det (B) \_0 es det (A) =0

a linéarent dep = manier non numbe Voca,

(b)  $der(A) \cdot der(A) \cdot der(A) = 6$  $= \frac{3}{6}$ 

 $A = \begin{pmatrix} 20 \\ 01 \end{pmatrix} B = \begin{pmatrix} 50 \\ 01 \end{pmatrix}$ 

der (A+13)= 7 0 = 14 7.

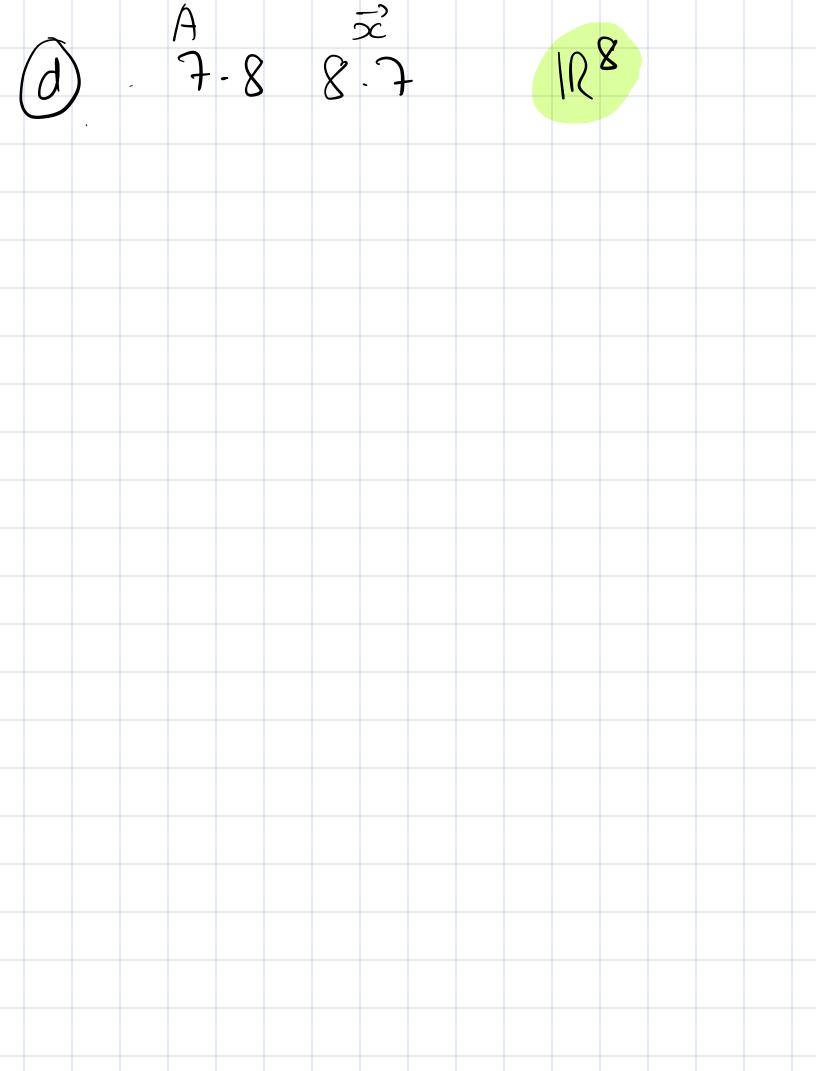


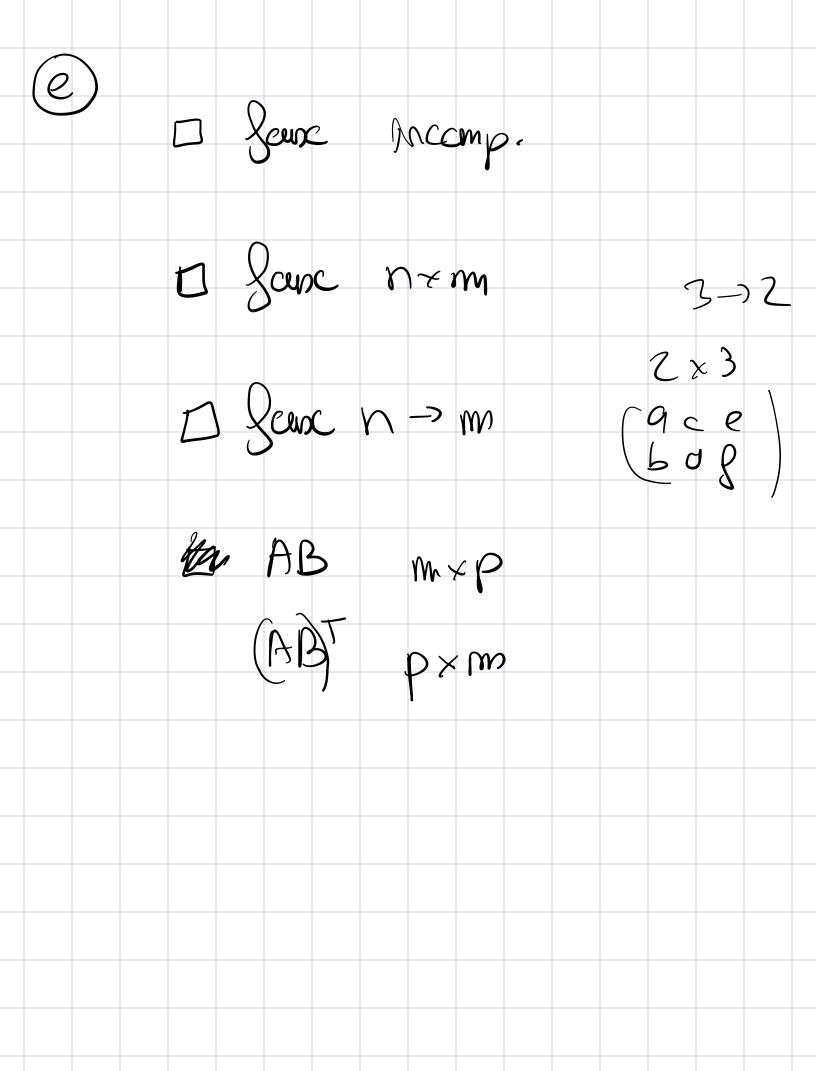
Exercía 12	
non, on perd byechnike	
D pas récessairement 8: A =	-B.
D Jame B-1 A-1	
(b) D BT AT	
Deuxe (11)	
D fairc BA	

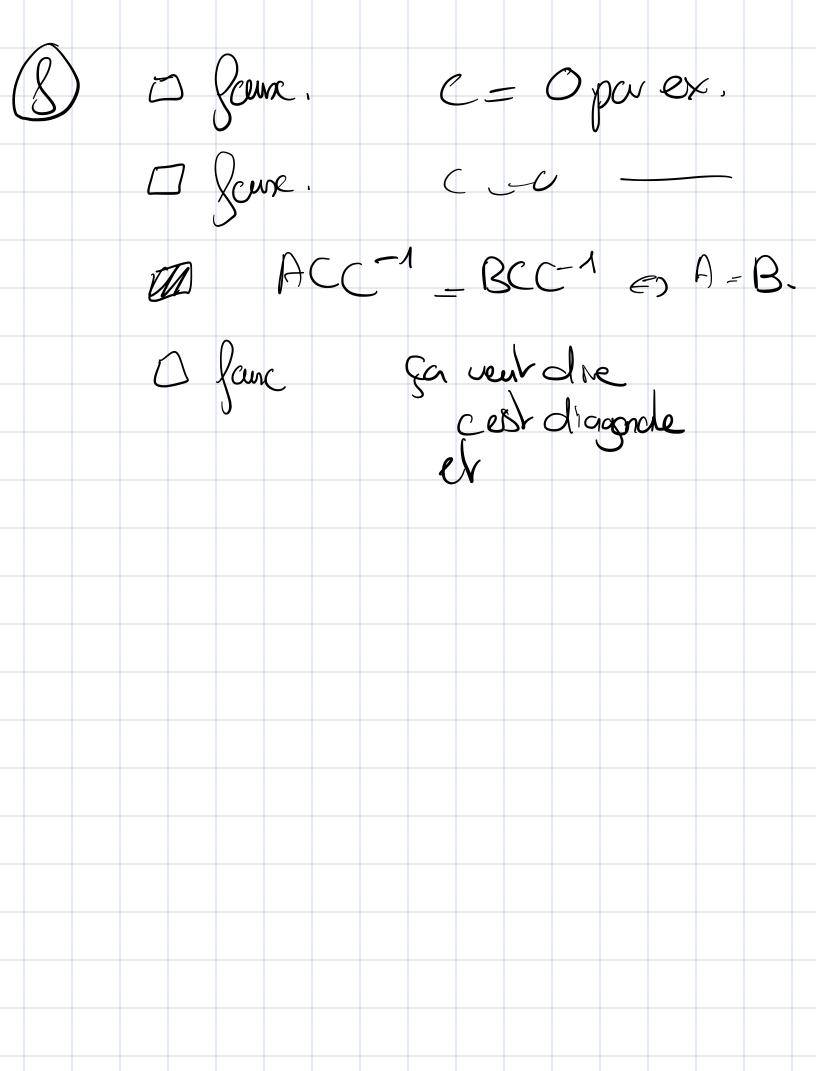
(ae + 
$$\int c = ea + gb$$
)
$$ec + gd = ag + hc$$

$$fa + hb = be + Of$$

$$bg + dh = fc + hc$$







$$D(A+I)(A+I) = A'+AI+IA+I^2$$

$$= A^2 + 2A + I^2$$

$$\Box (AA)' = (AA)(AA)$$