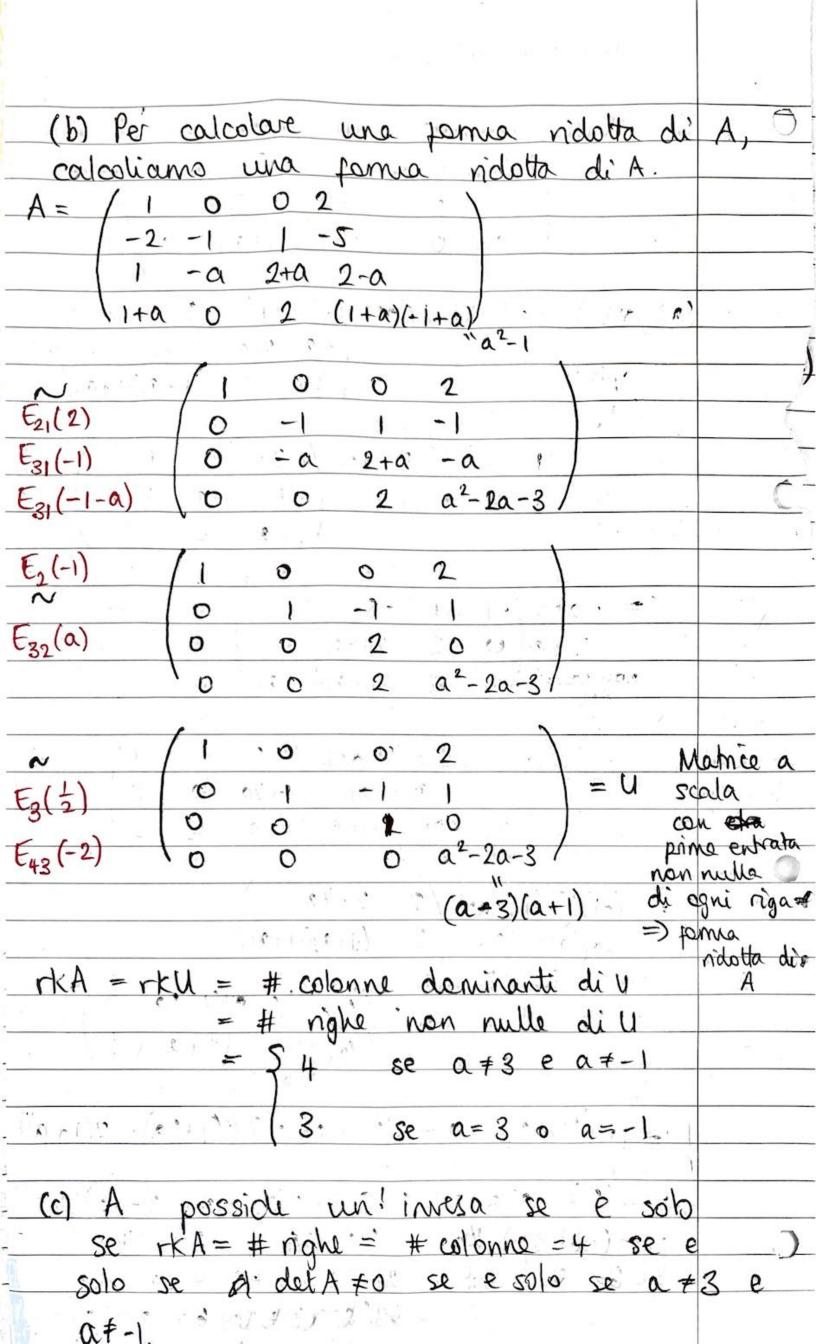
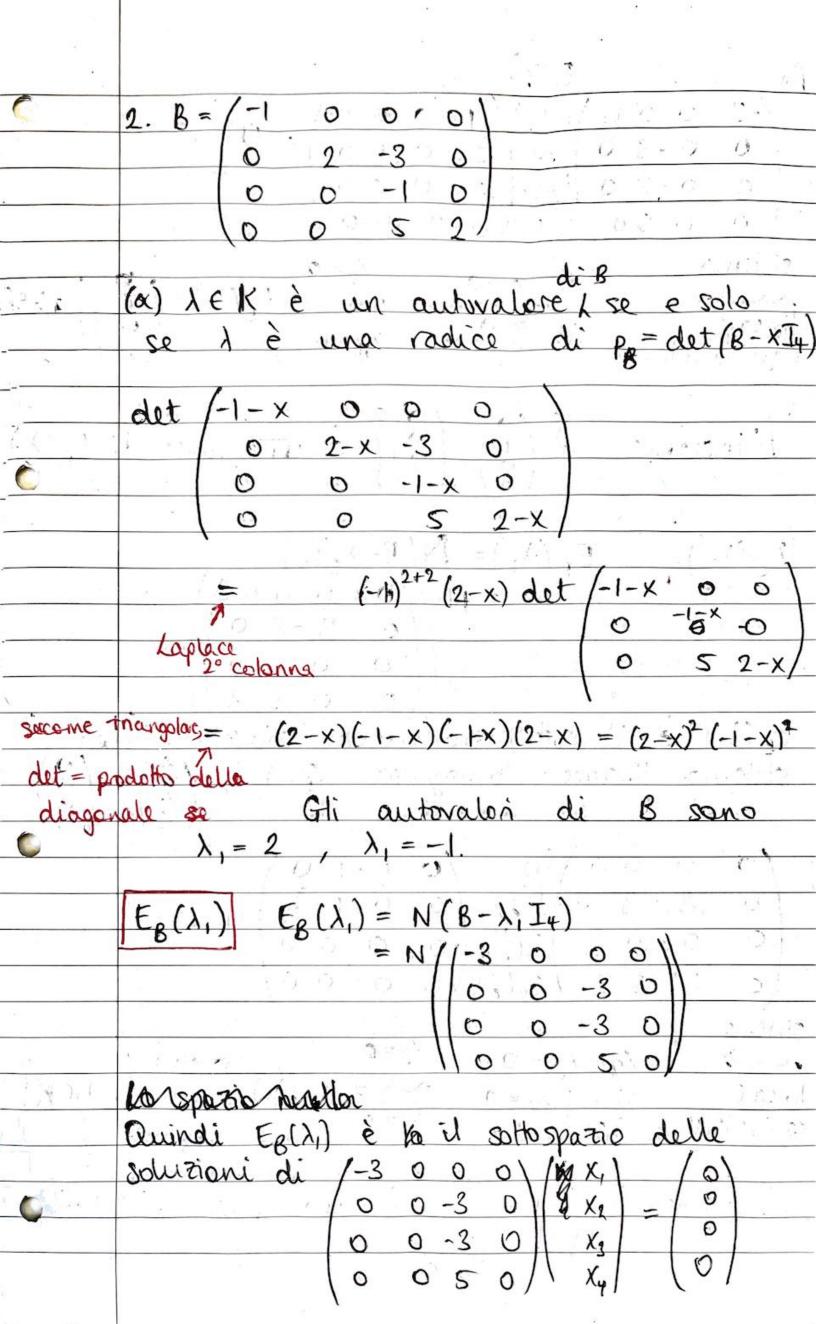
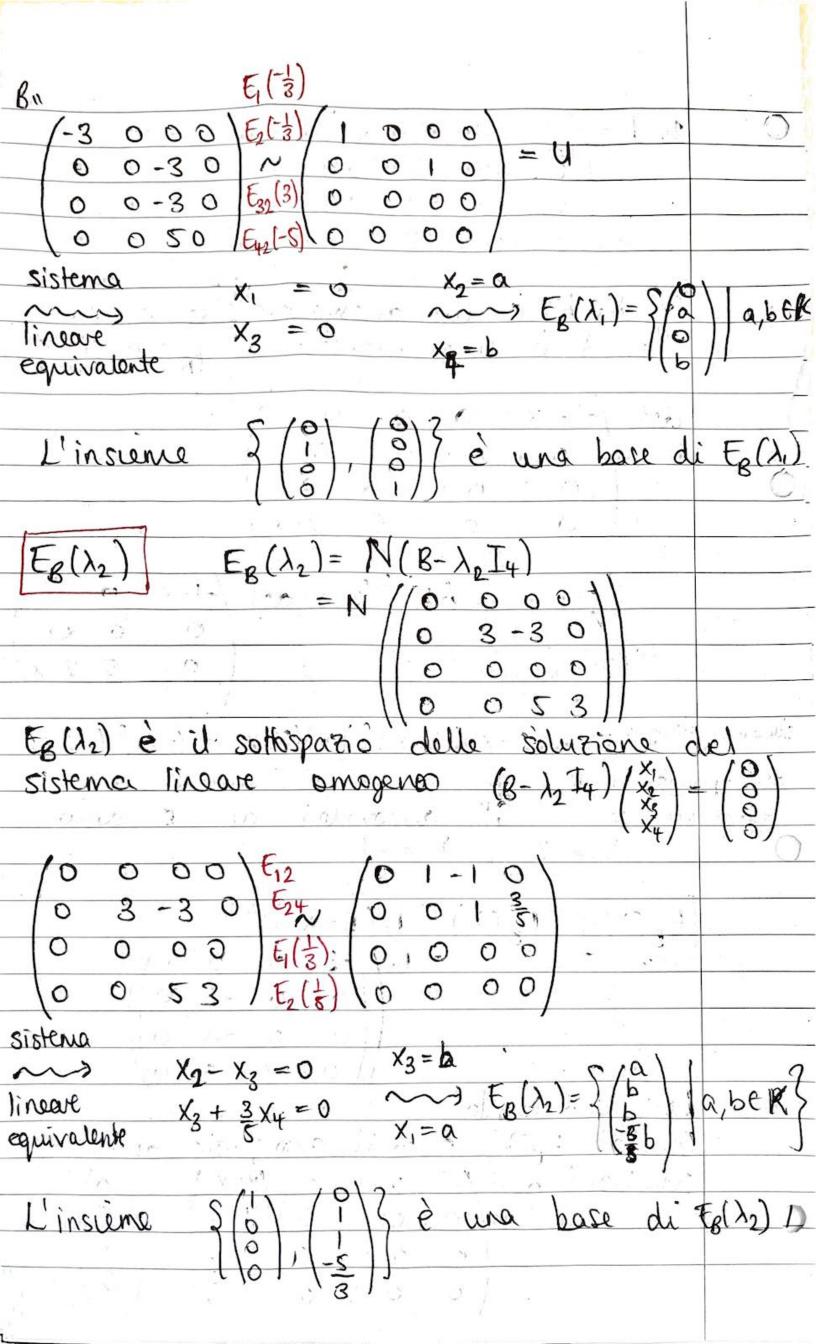
Soluzioni apello 1. 1 A = /1 0 0 2 -2 1 -1 -5 over -a 2+a 2-a . 2. (1+a)(-1+a) 1+0 0 (a) $\det A = (-1)^{1+1} \cdot 1 \cdot \det (-1) \cdot 1 - 5$ -a 2+a 2-a Laplace 2 (1+a)(-1+a), 1º nga + (-1)1+4. 2. det/ det 11 2 2+4a E2 (-a) 0 non cambia (1+a)(-1+a) - 2 det /- 2 -1 1+20 0 2 E, (-a) non cambia (-1) 1+1 (-1) det /2 2+4a 2 (1+a)(-1+a) Laplace 1º colonna 2 ((-1)1+2(-1)4+1+2a laplace (1+a 2° colonna -(2(1+a)(-1+a)-2(2+4a))-2(2(1+2a)-2(1+a))= - $(2(-1+\alpha-\alpha+\alpha^2)-4-8\alpha)-2(2+4\alpha-2-2\alpha)$ $= -(-2 + 2a^2 - 4 - 8a) - 4a$ $= 2 - 2a^2 + 4 + 8a - 4a$ $6 + 4a - 2a^2$

 $= -2(\alpha^2 - 2\alpha - 3) = -2(\alpha - 3)(\alpha + 1)$







<u>(</u>	(b) Le moltiplicità algebriche sono
	$m_1 = 2 e m_2 = 2$
8 9	Le moltiplicità geometriche sono
	$d_1 = \dim E_B(\lambda_1) = 2$ e $d_2 = \dim E_B(\lambda_2) = 2$.
	and court of the c
	La matrice è diagonalizzabile perché
	$d_1 = m_1$, e $d_2 = m_2$.
	$D = \begin{pmatrix} 2 & 0 & 0 & 0 \\ 0 & 2 & 0 & 0 \end{pmatrix} \qquad S = \begin{pmatrix} 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 \end{pmatrix}$
21	0 2 0 0 1 0 0 !
0	0000
	0 0 -1 0 0 0 -5
,	
	(c) $B_z = (2D_{z-1})_z = 2D_z Z_{-1}$
	(c) p (2D2)
	15 = /25 0 0 0 1 /22 0 0 0
	0 0 (-1) 0 0 0 -1 0
<u> </u>	(000(-1)5/ (000-1)
	Calcoliano S-1:
•	
	10010 1000 10001
	10010100 ~ 010-5 0001
	00010010 0010 1000
	1010-30001/0001/0000/
2007	
	1000001-10
1.	~ 0 100 00 \frac{5}{2} 1 \ 0 0 \frac{5}{2} 1
11.	0000 1000
-	000100100100
. 1 0.1	
19F	I have a second in the first of the contract of
mark -	

