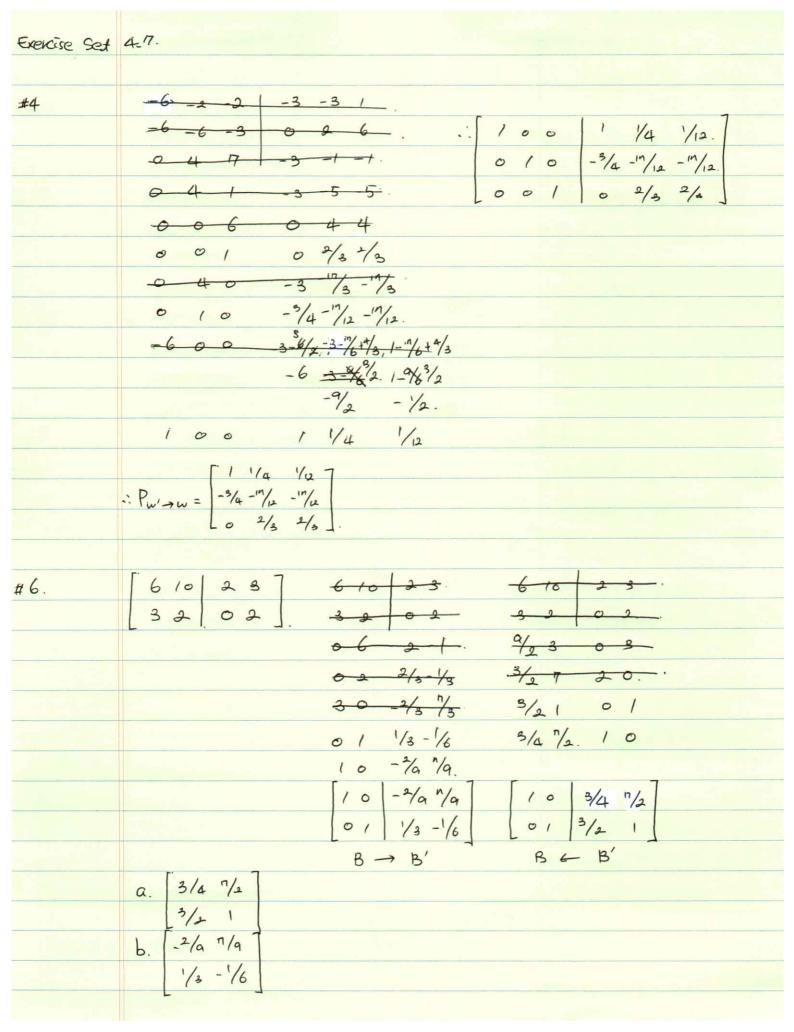
```
2/4823 432
Exercise Sex 4.6.
                        121-X2 -xq=0. / X1= +5
#2.
                          4 x2+ x3+4x4=0
                                        T2= +
                                        x3=-4t-4S
          8920
          4010
                                         24 - S
          +1-10-10
           04140
          [2, 20-to-, t. 2+t]= 2.2
          dian (5.5)=2.
                      => 10-4
#6.
                                       \chi_1 - 4\chi_3 = 0.
                         0 1 5
                                       X2+5X3=0.
                         0 0 0
          431
          65+
                          0 0 0.
           0 15
           0 -1 -5
           10-4
          5.5= undefined
          dan (5.5) =0.
         a. basis: { (1,0,0,0), (0,1,0,0), (0,0,1,0) }.
#8.
           dim: 3.
          b. (a, b, a-b, a+b)
            basic: {(1,0,1,1), (0,1,-1,1){.
            dim:2.
```

#8.	C. basis: 9 (1,1,1,1) 2.
	dām=1.
#(2.	a. =1,2,8 basis: {(0,0,1),(1,-2,0)}
	-1,-2,-2. diu: 2.
	o o / : Caunot be added.
	1 -20
	b. 1-10 basis: § [1,-1,0], (2,0,-1).
	<del>312.</del> d'èm: 2.
	do-2 : Couned be added.
	20-1
#/4	{u, u, u, u, e, e, e, v, tu, v, tu, v, tu, e,
	{ U1, U2, U3} + { U4, U5, U6} = { U,+ U4, V,+U2+U4+U5, V,+U2+U5+U6} V.a.
	[ { \( \lambda \), \( \lambda \).
	· qui, ue, us q is basis.



#6

C. 
$$\begin{bmatrix} -2/a & n/a \\ 1/3 & -1/6 \end{bmatrix} \begin{bmatrix} -a \\ 1 \end{bmatrix} = \begin{bmatrix} -1/a \\ -a/k \end{bmatrix}$$

$$\begin{bmatrix} -1/a \\ -5/2 \end{bmatrix}$$

#8.

Q.  $\begin{bmatrix} 2 & -5 \\ 1 & 4 \end{bmatrix} = \frac{1}{2+3} \begin{bmatrix} 4 & 5 \\ -1 & 2 \end{bmatrix}$ 

$$\begin{bmatrix} 4/n & 3/n \\ -1/n & 2/n \end{bmatrix}$$

b.  $\begin{bmatrix} 1 & 0 & 2 & -3 \\ 0 & 1 & 4 \end{bmatrix} = \begin{bmatrix} 2 & -3 \\ 1 & 4 \end{bmatrix}$ 

C.  $\begin{bmatrix} 2 & -3 \\ 1 & 4 \end{bmatrix} = \begin{bmatrix} 4/n & 2/n \\ -7/n & 2/n \end{bmatrix}$ 

d.  $\begin{bmatrix} w]_8 = \begin{bmatrix} 19 \\ -7 \end{bmatrix}$ 

$$\begin{bmatrix} w]_8 = P_{8-95} \begin{bmatrix} w]_8$$

$$\begin{bmatrix} 2/6 & -2/1/n \\ -1/n & 2/n \end{bmatrix} \begin{bmatrix} 1/9 \\ -7 \end{bmatrix}$$

$$\begin{bmatrix} (76 - 2/1)/n \\ (-19 - 14)/n \end{bmatrix}$$

e.  $\begin{bmatrix} w]_8 = P_{8+9} \begin{bmatrix} w]_8 = \begin{bmatrix} 4/3 \\ -5 \end{bmatrix}$ 

$$\begin{bmatrix} w]_8 = P_{8-9} \begin{bmatrix} w]_8 = \begin{bmatrix} 4/3 \\ -5/3 \end{bmatrix} \begin{bmatrix} 3/3 \\ -5/3 \end{bmatrix}$$

i.  $(-5, -15)$ .

#12.  $\begin{bmatrix} 3 & 1 & 7 & 2 \\ 5 & 2 & 2 & -1 \end{bmatrix}$   $\frac{3}{5} + \frac{7}{2} + \frac{3}{5} + \frac{7}{2} + \frac{3}{5} + \frac{1}{5} + \frac{$ 

1 0 1

abc / //

def //0

ati. 100.

aibc 0/1.

dief 0/0.

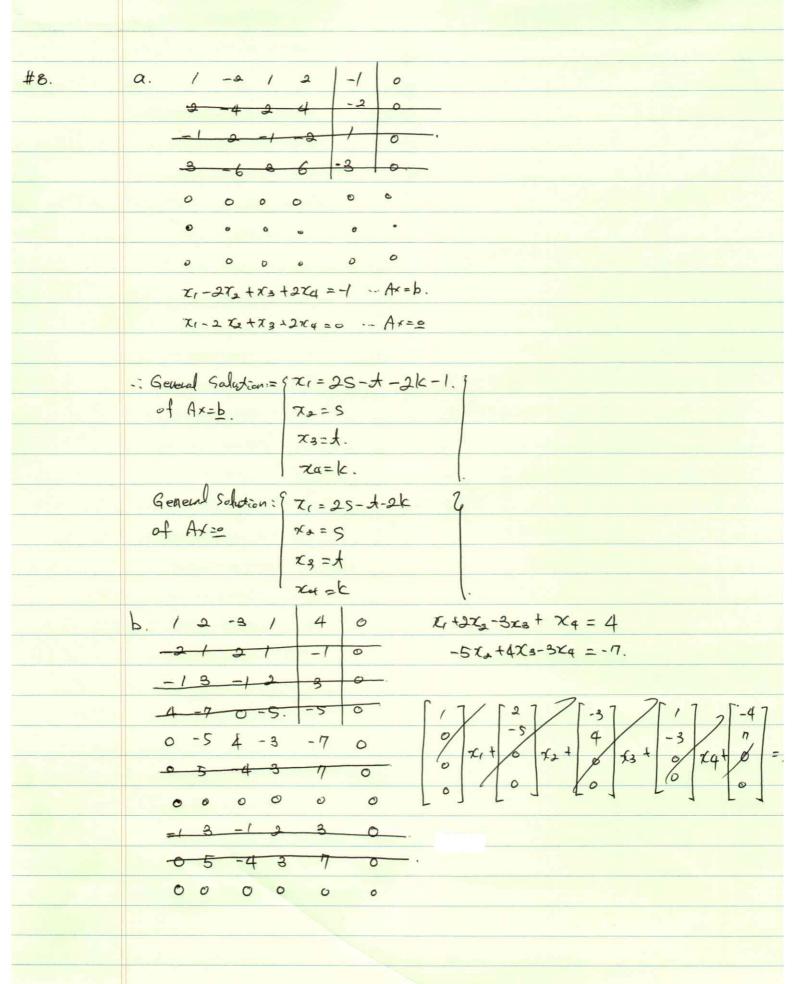
dief 0/0.

dief 0/0.

a=1. b=0 C=1.

8=1 4=0 i=0.

d=1 e=1 f=-2.

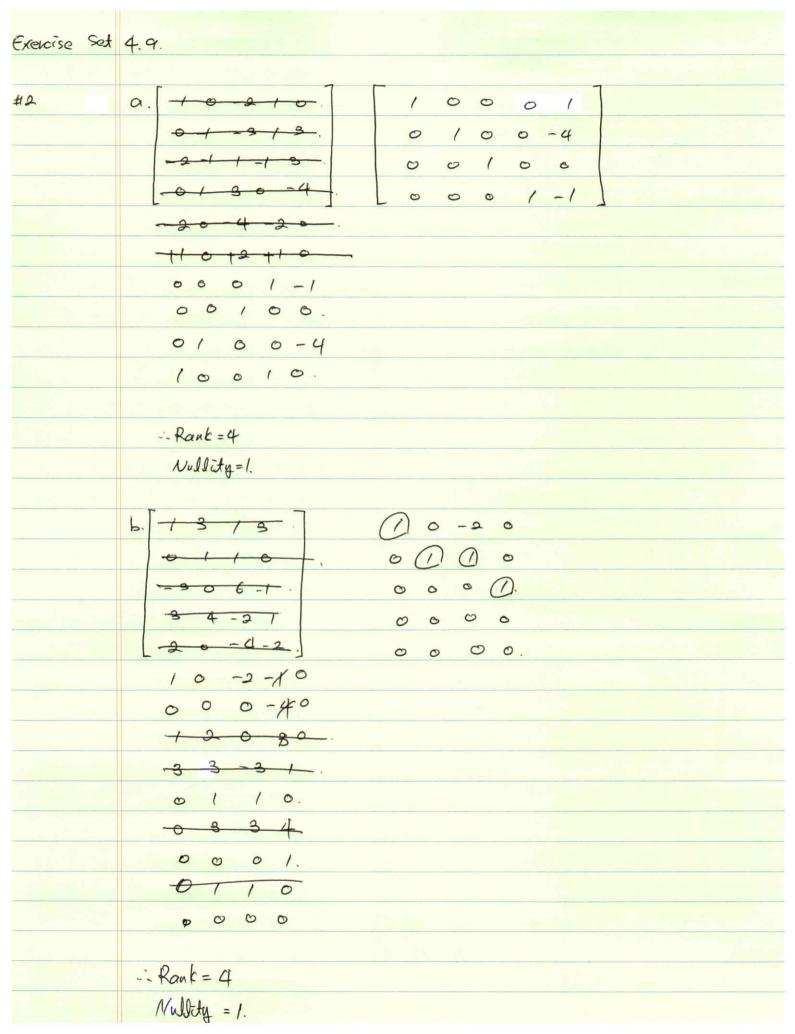


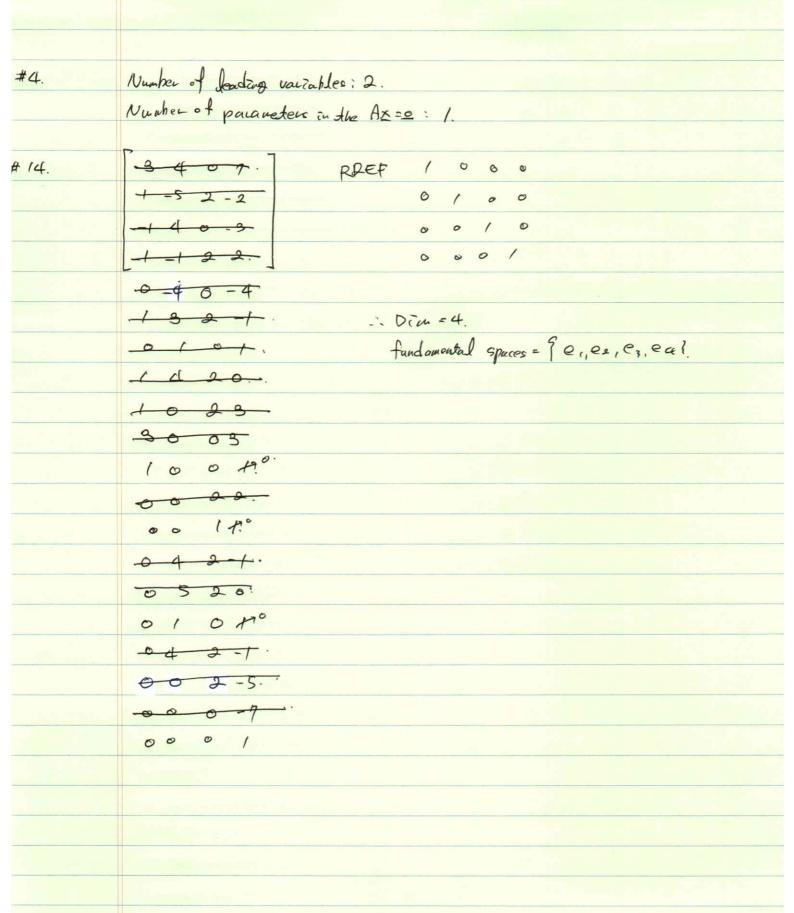
b. 
$$12 - 31$$
 $x_0 = (4xt - 3k)/(c-5) = -4/5 + 4/5/5k$ 
 $0 - 54 - 3$ 
 $x_0 = t$ 
 $0 0 0 0 0 0$ 
 $x_0 = t$ 
 $x_0$ 

#10.

$$a. \frac{1}{4} \frac{1}{5} \frac{1}{2} \frac{1}{6} \frac$$

b. +4569P. 10127 #10. 3-2/4-1P2 01112 10 12 1. Pg 00000 23518. 14 00000 0 4 4 8 P, +P3 0 -5 5-5. -10. P4-2P, 0-14-14-14-28. Pa-3P1 0 1 1 1 2 (PHP3)/4 = (Pa-2P,7/(-5) = (P2-3P,)/(-14). 1 0 1 2 7 3/2 PI+ 1/4 P3 = 3/5 PI - 1/5 P4 = 1/10 PI - 1/10 P2. 10121 0 11.12 is not spans P4. #14 #16. 13/-5. 1020. 1 1 9 5. 010-2. 00 / 1 1664 000/ 0-4-4-6 0010. 04 3 3 1-20-2. 001113 (C1, P2, P3, P9). 0 4 2 0. 0111





#20. 0 0 0 +5 +1 +2-1 +10: 0 13/2 1/2 1/2 00-1/2. 0 0 3 1/2 1/4 1/20 -14-1/2. 0 10 1/4 3/8. 1/40 1/8-1/4. 0 0 1 16 1/12 1/60-1/12-1/6. 0 0 0 1 1/5 2/5-1/5 1/50. 0 10 0 3/6 /20 1/4 /10,1/20,1/8 /20 -1/4. 0 100 13/40 3/20 1/20 /20 -1/4 0 1/12-1/30, 16-1/30, 1/12-1/30, 1/6. 0010 \$/60/20 1/10, 1/30 -7/60-1/6. 1000000001 0 1 0 0 13/00 3/20/20 3/20-1/4 0 0 1 0 1/20 1/10 1/30 1/60 -1/6. 0001115 2/5-1/51/50. .: 0001 360 1/203/20-1/4 1/10 1/30 -1/60 -1/6 2/5-1/5 1/5 0

#22.	$TX = (\gamma(1+3\chi_2, \chi_1-\chi_2, \chi_1)),$	
	[13]	
	T= 1-1	
	a. 2.	
	b. /.	