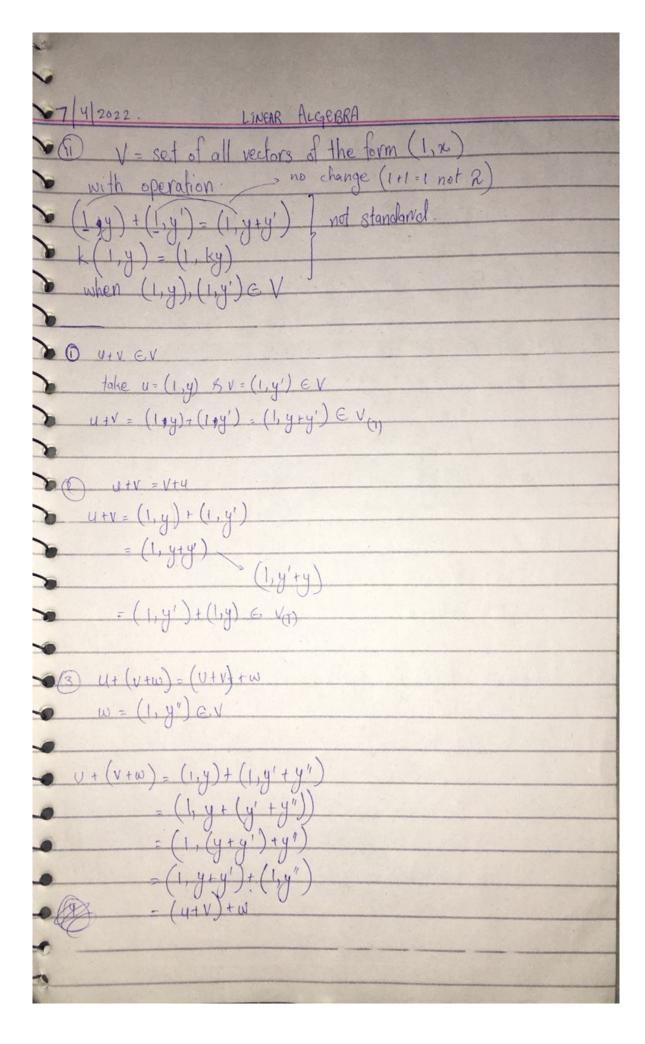
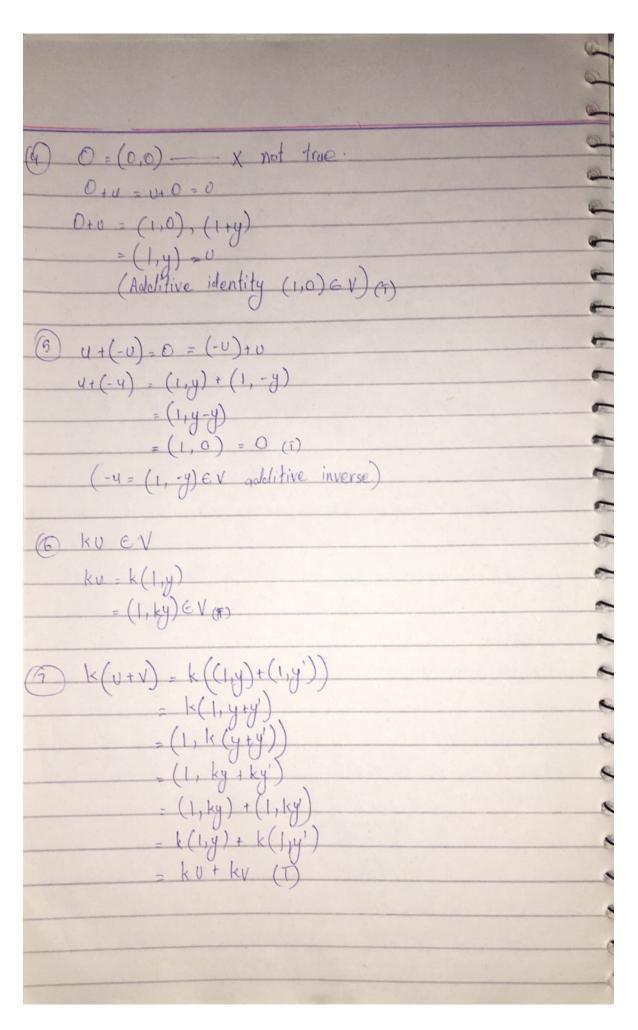
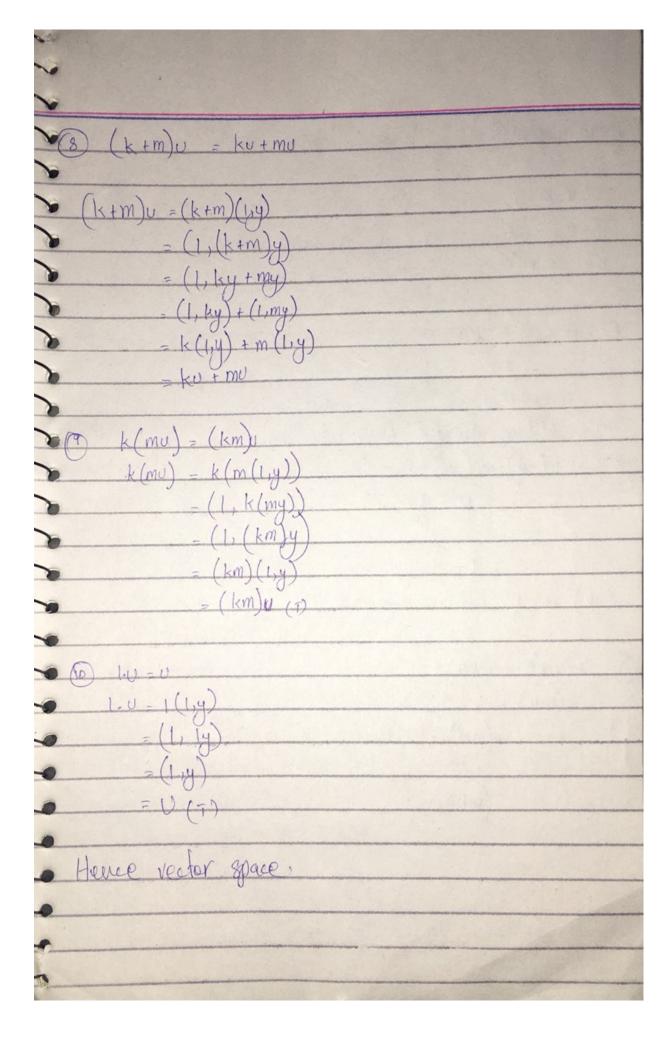


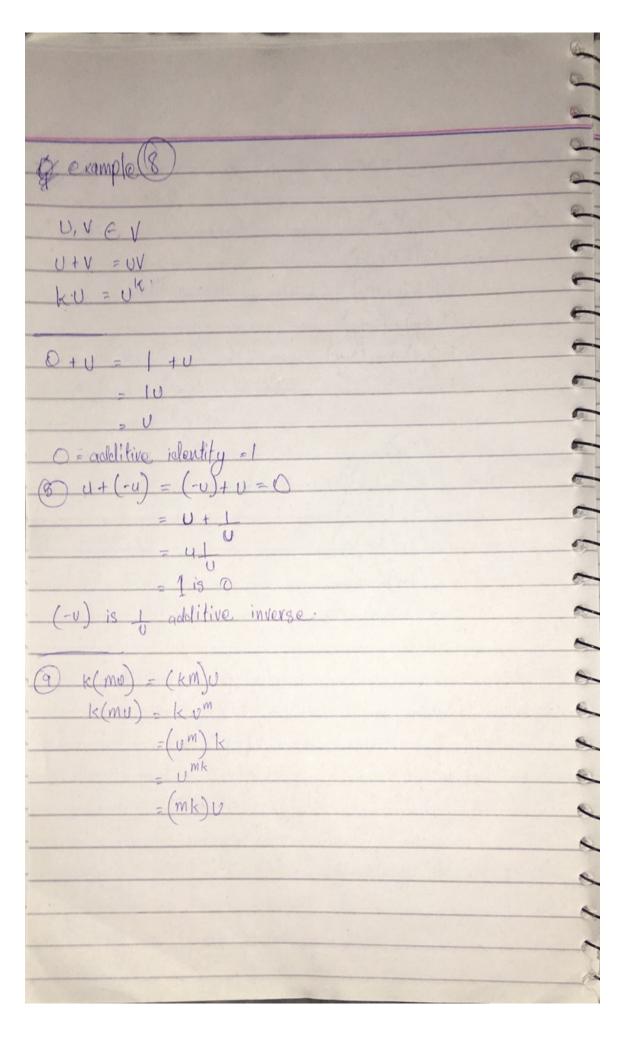
```
(k+m) v = ku+mu
   (k+m)u = (k+m)(u_1, u_2)
            = (0, (k+m) v2)
              O, KU2 + MU2)
             (0, (< u_2) + (0, m u_2)

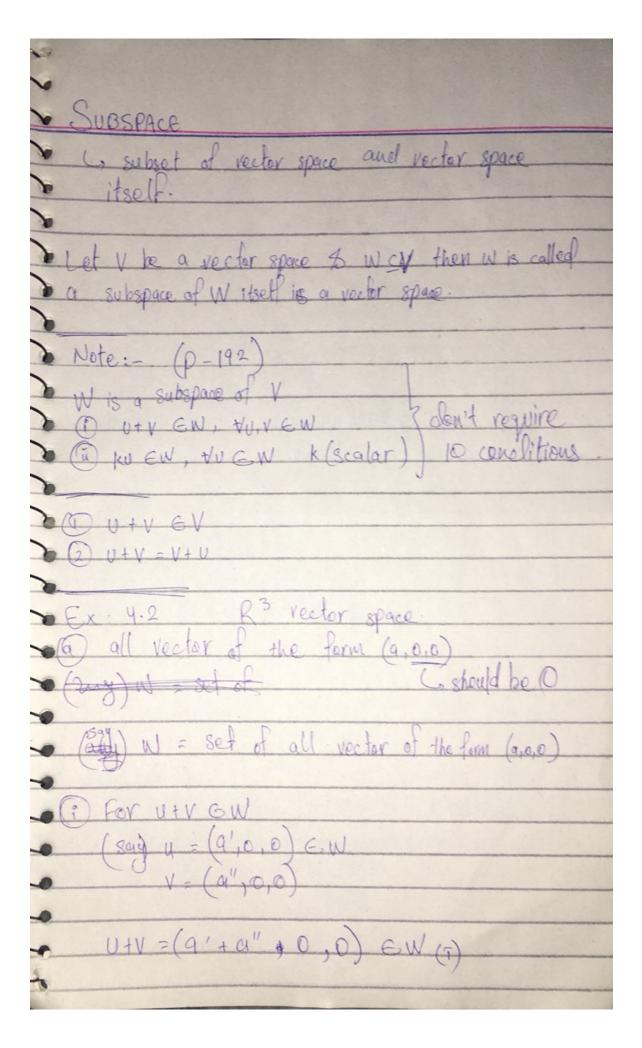
k (u_1 + u_0) + m(u_1, u_2)
        = ku + my
> (mu) (km)4
          = k(0,m(v1, 42))
          = k(0, mu_2)
             (O, 1< (mu2))
           -(0, (km)u_2)
      = (km)(U_1,U_2)
           = (km) u
(D) 1.0 -0
   1.4 = 1 (4, 1 62)
  1.0 $0
· Hence V is not a vector space
```

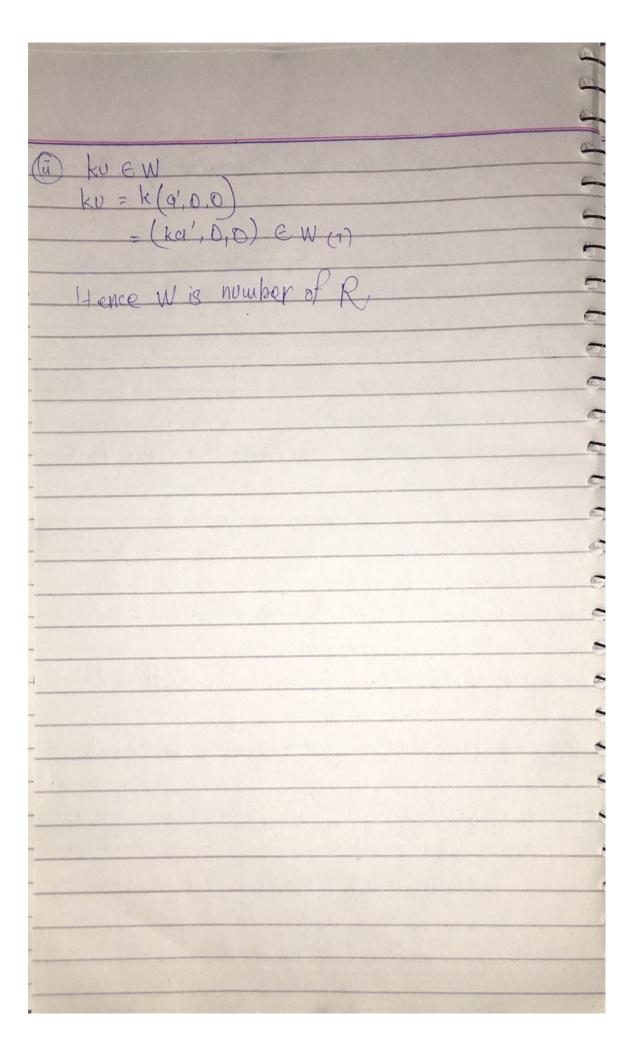


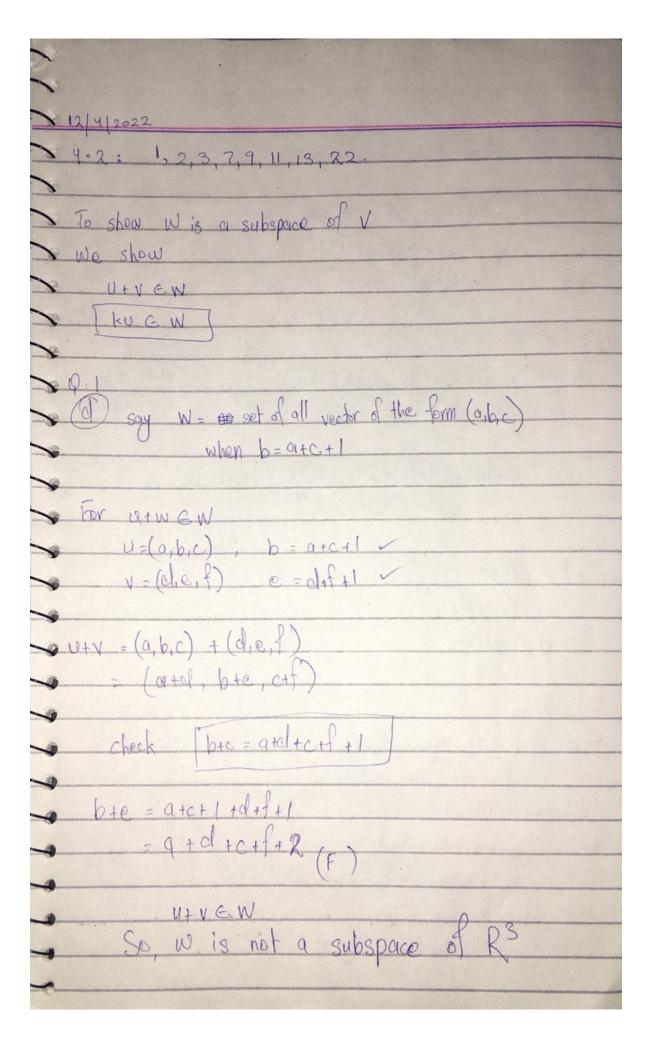


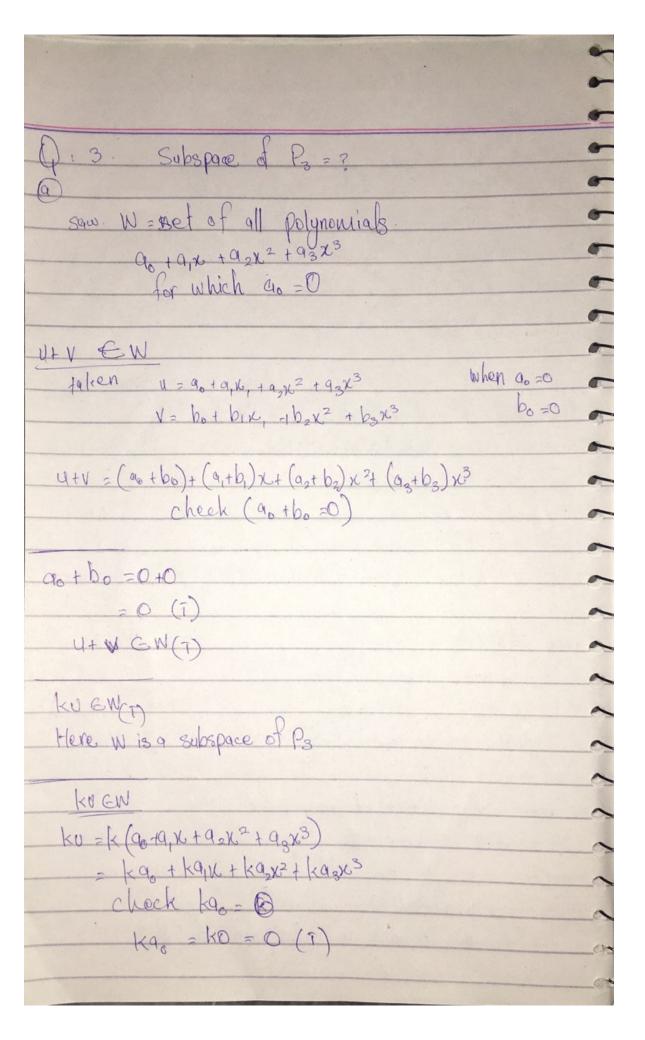


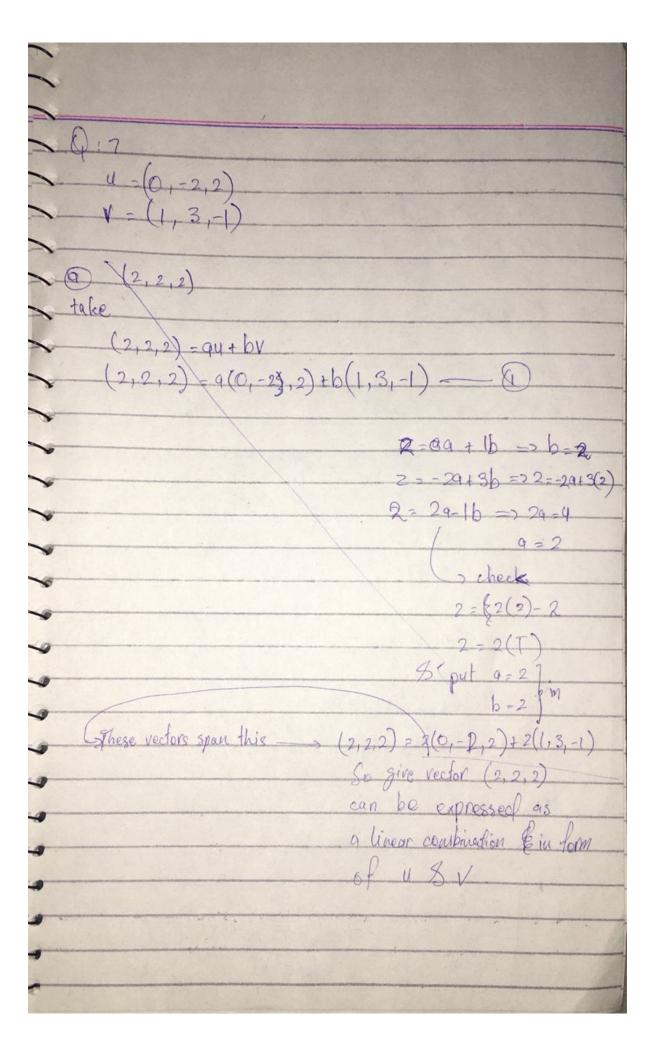


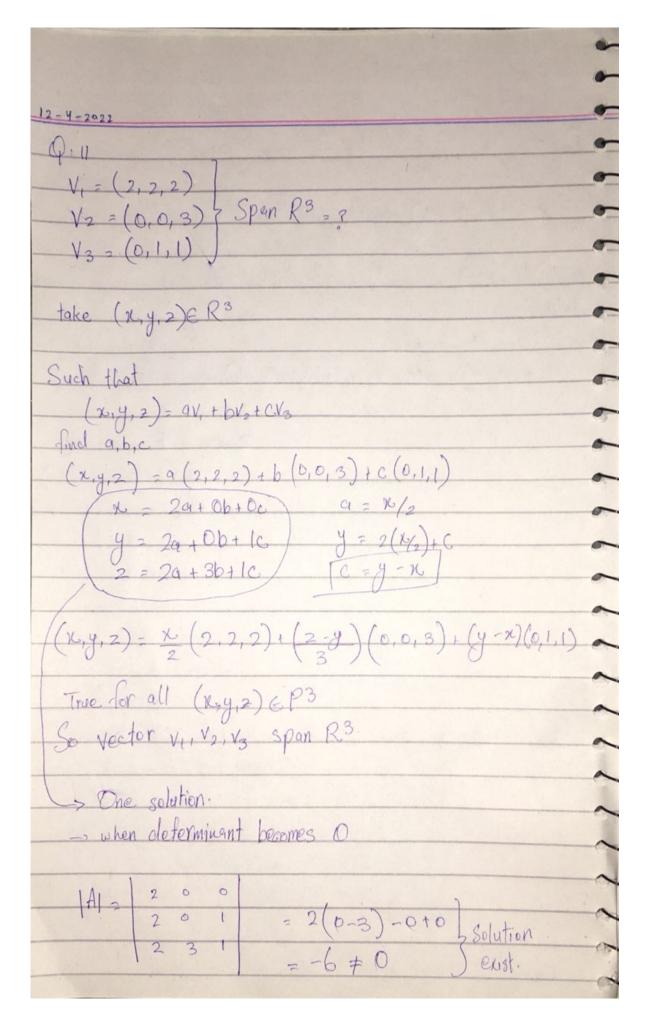


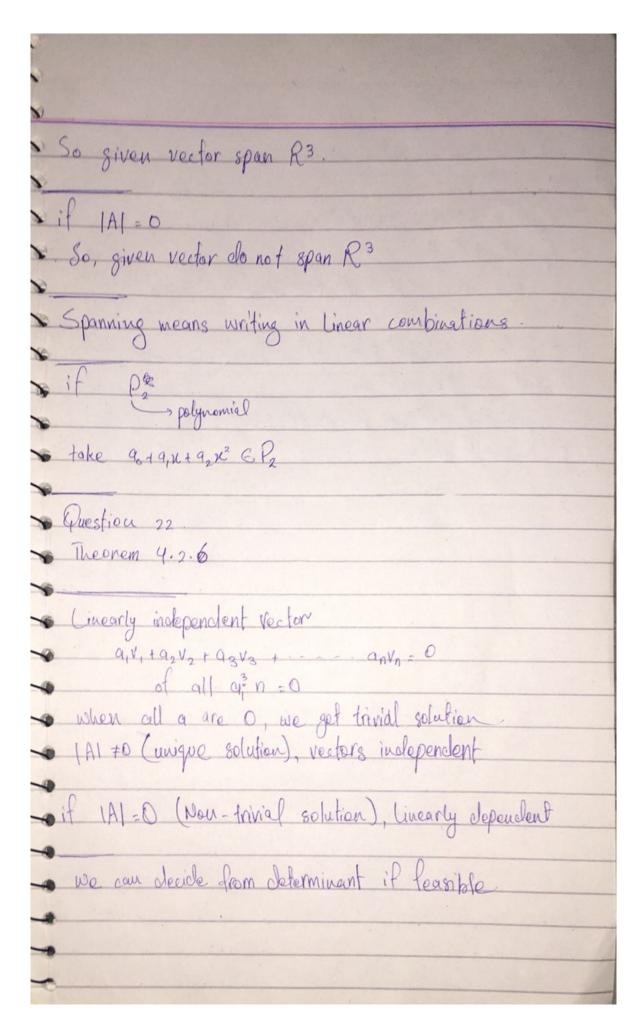












[V1 = 92 V2 + 93 V3 + C4 V4]
[VI = 11212 1 1313 1 19 1]
0 - (3V1 + 019V2+ 93V3+94V4
1 lamulant
Come coeff is not 0 so independent dependent.
- if O vector is included than still dependent as non-zero
and the insteam be written.
- two equal and multiple vectors are also dependent as 1,
can be coefficients
1

	5	
14/4/2022		
4.3. Q: 1, 2, 3, 5, 6, 7, 9, 11 (examples (2) x(3))		
	1 (independent vectors -	
Q: L	all ain =0	
V = 2u	(trivial Solution)	
- alependent	1A1=0 (if feasible)	
- (Y-24 = 0	otherwise dependent vectors	
S not zero components so	(IAI to if feasible)	
- dependent	non-trivial solution	
	1. Multiple vectors are objected	
$Q: 2$ V_1 V_2 V_3 $Q: (-3,0,4), (5,-1,2), (1,1,3)$	2. if any 1 is 0 rector than	
(3) $(-3,0,9)$, $(5,-1,2)$, $(1,1,3)$	also dependent.	
take.		
a, V, +9, V, +9, V, = 0		
a(3,0,4)+b(5,-1,2)+c(1,1,3)=0		
- 3a+6b + 1c = 0		
0a + 1b + 1c = 0 dete	erminant is feasible.	
49+2b+3c=0) 1	f	
	R3+ (-4)R, 1 7 4	
-3 5 1 0	0 26 -13 8	
0 -1 1 0		
4 2 3 0	(-1)R2 (1 3 4	
echelon form.	0 1 -1	
[1740]	0 - 26 - 13	
R, + (1)R3 0 -1 10		
(4 2 3 6)		

