ML

Manage Pahilwani 37.

- 0

Assignment 1

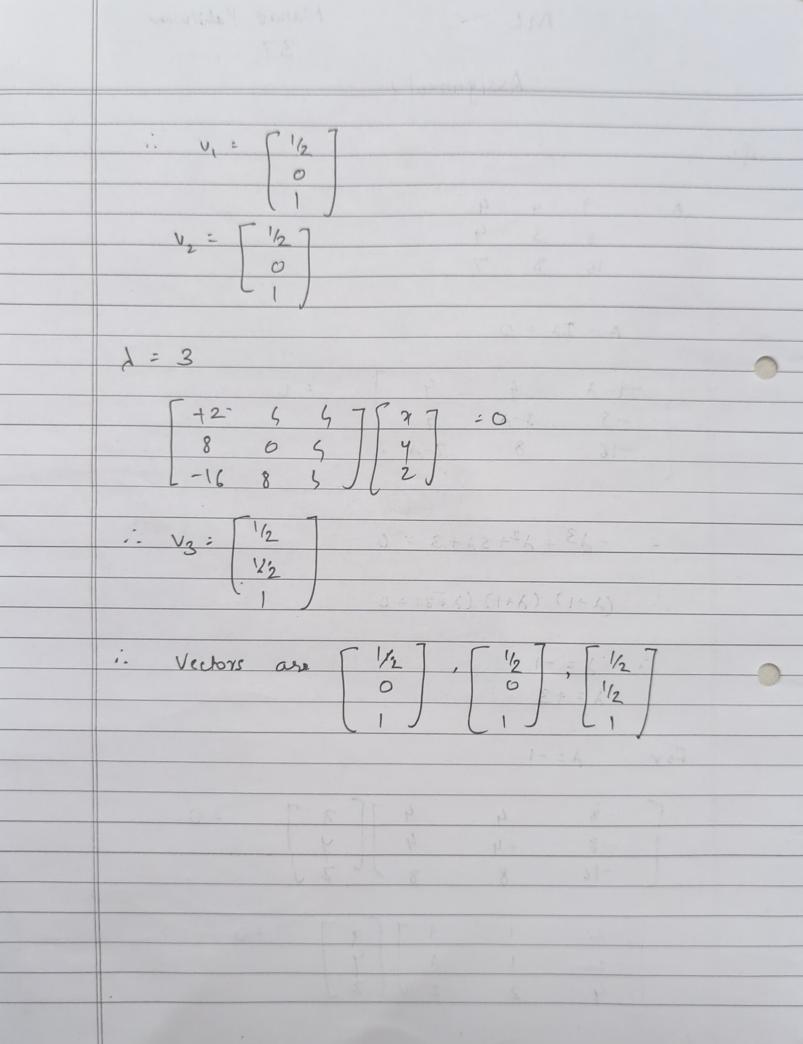
91.

-9-x	4	4	
-8	3-20	5	F 2
-16	8	7-2	1
		65	

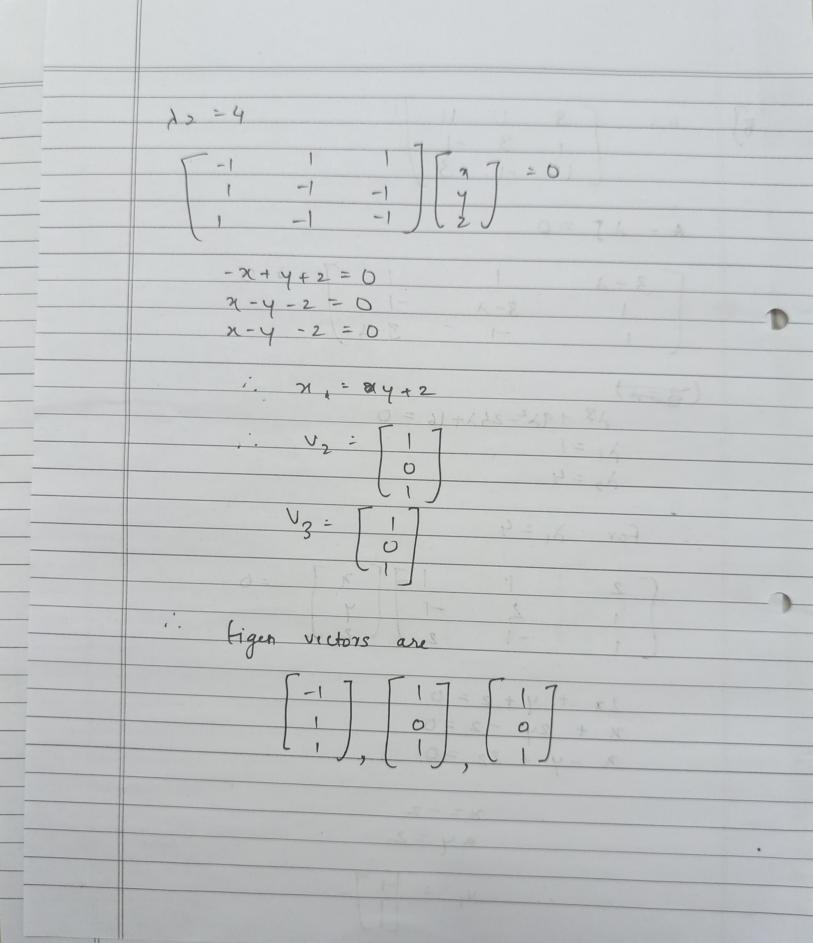
$$= -\lambda^3 + \lambda^2 + 5\lambda + 3 = 6$$

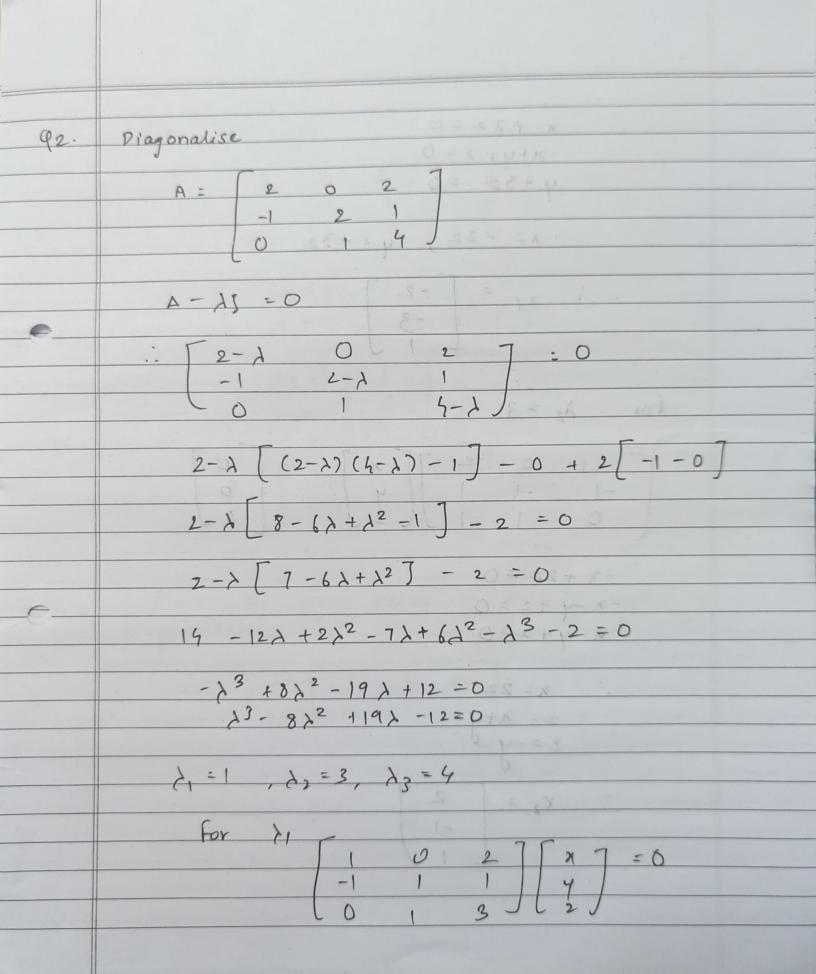
For 2=-1

$$\begin{bmatrix} -8 & 4 & 4 & 7 & 7 & 7 & = 0 \\ -8 & +4 & 4 & 4 & 7 & 7 & = 0 \\ -1c & 8 & 8 & 7 & 7 & 7 & = 0 \end{bmatrix}$$

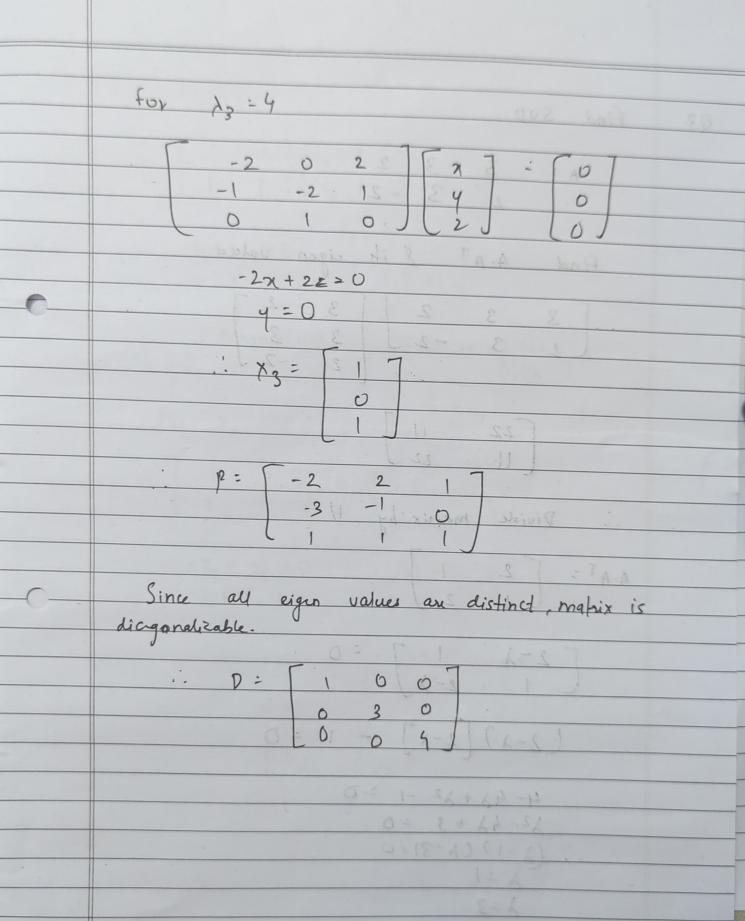


 $A = \begin{bmatrix} 3 & 1 & 1 \\ 1 & 3 & -1 \\ 1 & -1 & 3 \end{bmatrix}$ A- 25=0 651 1-[3-A 1 10=75+12+0-(3=1) $\lambda^{3} + 9\lambda^{2} - 24\lambda + 16 = 0$ $\lambda_{1} = 1$ 12=4 : For 2 = 4 2x + y + 2 = 0 21 + 24 -2 =0 2 -4 + 22 =0 · 12--2 ay=2. ·. v, = [-1]

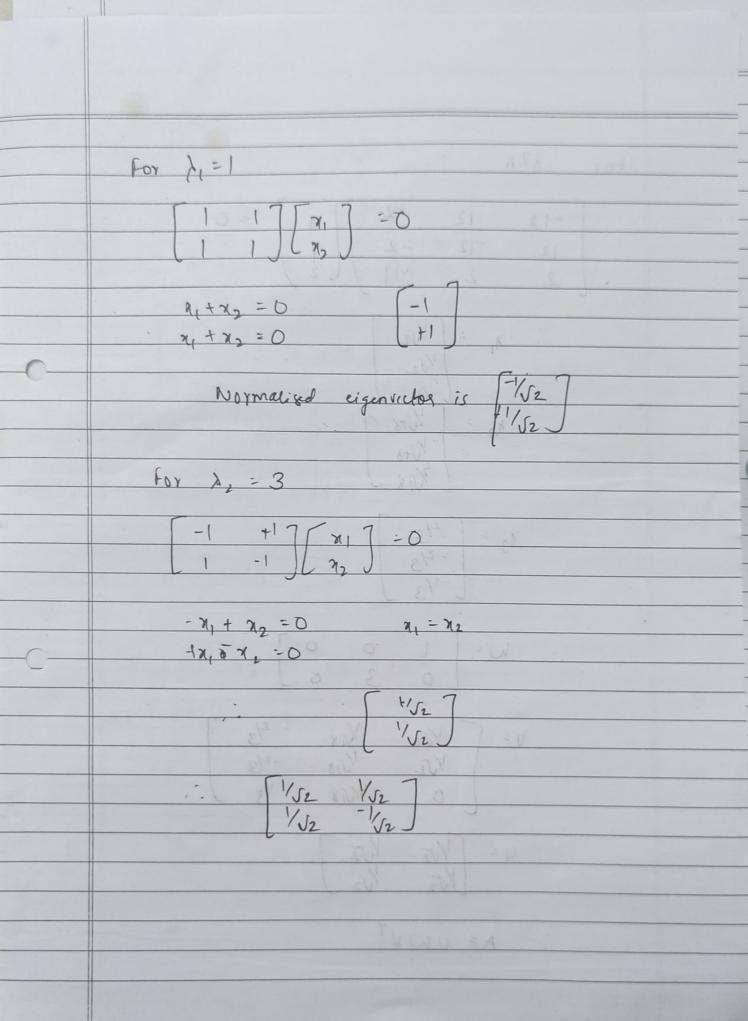




x +22=0
-X+4+ 2 = 0
4+3==0
$\lambda = -22$ $y = -32$
x, = -2
-3
For 2 - 3
0 -
-1027527
-1 -1 1 4
-x + 22 = 0
$-\chi - \psi + 2 = 0$
9 4+2=0° 1 + 1 - 3 (2 + 4 8 1 - 3 1
2 = X+Y=
2= 7+4
, X ₂ : 2 7



Q3.	Find Sup	
A-	A: 3 3 2 Find A. A. T. S. ik eigen value 3 3 2 3 2 2 3 2 2 2 3 2 2 2 2 1	



For A7.A	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
1/52 0 1/578 / -1/578 -1/578 -1/578	2_2
$\frac{3}{3} = \frac{2}{3}$ $\frac{-2}{3}$ $\frac{-1}{3}$	
W= 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
V= \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
4 = \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
: A= UWVT	

Q4-	$A = \begin{bmatrix} 25 & 13 & -5 \\ 15 & 18 & 0 \\ -5 & 0 & 11 \end{bmatrix}$
•	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	lets eliminak pivots fz = fz - 0.6 x f1
0	$A : \begin{bmatrix} 25 & 15 & -5 \\ 0 & 9 & 3 \\ -5 & 0 & 11 \end{bmatrix}$ $A : \begin{bmatrix} 25 & 15 & -5 \\ 0 & 3 & 3 \\ -5 & 0 & 11 \end{bmatrix}$
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Pivok are positive	, so matrix is positive definite
0	, so makix is positive definit
Pivots 25, 9, 9.	0 31 21
	0 2-1
	9-74-4
	2 /2 /2 /2 / 3 / 3 / 3 / 3 / 3 / 3 / 3 /
	3- 18 4-28.
	1 / 4-31 / 20 1
	0 2-1
	let element point
	E E E CORRE
	A= 25 15 -5 7
	A: 125 A
	1 0 3-
	B 62 16.2 X E
	T 2 - 21 201
	As 25 - 3
	0 3 10 1
	ELE R3 - 6:33 X KS
	21 28] 34