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	Assignment # 02	
	Muhammad Anees	
	FA20-BCS-045	
	BCS-4And and Miles apis to be beginning	
	Submitted to Sis Umais Umer	1
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	in the state of the foreign the soil is a soil	
	Matrix Determinant	
	If any pariable say "I" is milliplied	
	It is a scalar value that is calculated	
	In matrix, the vertical fines are column	
	In matrix, the vertical lines are column	
7	and horizontal lines are rows. "n" order	
-	of determinant has "n" number of sows	
	and columns.	
	Determinant of 2x2 matrix	
	0	
	1 3 / -> (4) - (6) -2 -2	1
	[2 4]	
	Determinant of 3x3 matrix	
-	Determinant of 3x3 matrix	
	1. 5. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 1. 2. 1. 2. 1. 2. 1. 1. 2.	
_	1 2 3 4 5 6 => 1 ((5)(9)-(6)(8)] - 2 (4)(9)-(6)(7)]	
-	17 0 9 1 7 73 (4)(8)-(5)(7)	
	1 (45-48)-2 (36-42)+3(32-35)	
	(3-01) (1-05) Exercise (-3) -2 (-6) +3 (-3) 1 = 1101	
	341 + 00=+ 6-3: +12-9 (101-1)3+	
	1 2 2 2 4 4 5 5 5 5 6 4 5 5 5 6 4 5 5 5 6 4 5 5 5 6 4 5 5 6 6 6 6	
		100

Properties	of Deter	minart	
Change in v	alue of do	eterminant will	not
occur if so	w and co	lumns are int	er_
changed but	sign will	be changed.	BCS
Change in voccur if so changed but	Sir Umai	mited to	Like
1) two you	s or color	mus in detoon	inant
Thave same	value, detern	rinart will be	2080
y any varia	ble say	"K" is multip	lied
80005	or columns	then its val	ne
Il any varia	tiplied by	"K"	Mork
column are	all elome	ents of your	8
es with are	exposed as	the sum of	two
The state of the s	1110 1100	146.44	
de terminant:	terms of	two or more	L
Storidie il	X. 0	A governor	Defe
Reflection	S- money L	4	. 1
8	property		101
value of de	herminant is	unchannal	
inter-changing	a sows ou	ed I m	2300
0 0		6 (200)	/
M= 1 5	6] -> IN	11=11 5 6 = 1	-3 1
(5) (8) -3) (12	15-83 (0)-0	71: 1 5 6 2 1	2 0
2750	15-43/00]E+	7 0 4 6	8 4
Lace Solot	-48)-2/36.	case?	
1011 = 1/(8-0)	1-5[(-12-56)	= 1(8-0)+3(20-0) नी (५०
+6[(0-1	4)] 9-51.	= B+60+19	6
= B+340.		= 264	age in the control of the co

2) Switching property 2) Switching property 2) and of two rows or columns are 2) and of two rows or columns are 3) and of two rows or columns are 4 hobertanged, sign of determinant is 4 ehanged, e.g M = [1 2 3] = [1 2 3 interchanging 5 1 2 R2 SR3 5 1 2 R2 SR3 (ase H or 1
9/ and of two sows or columns are Inbertlanged, sign of determinand is changed, eng M = [1 2 3] = [1 2 3] interchanging [3 0 4] 5 1 2 R, SR3 [5 1 2] [3 0 4] Case H 02 [M] = 1(0-4)-2(20-6):3(3-0) M = 1(4-0)-2(20-6)+3(0-3) = -4-28+9 = 4+28+9 = -23 3) All-2880 property 21 all the elements of any sow or column are in matrix zero than its determinant is zero. eng
M = \[1 \ 2 \ 3 \] = \[1 \ 2 \ 3 \] interchanging \[3 \ 0 \ 4 \] \[5 \ 1 \ 2 \] \R, \(SR_3 \) \[\left(5 \ 1 \ 2 \right) \] \[\left(3 \ 0 \ 4 \right) \] \[\left(4 \ 0 \right
M = \[1 \ 2 \ 3 \] = \[1 \ 2 \ 3 \] interchanging \[3 \ 0 \ 4 \] \[5 \ 1 \ 2 \] \R, \(SR_3 \) \[\sqrt{5 \ 1 \ 2 \]} \] \[\sqrt{3 \ 0 \ 4 \]} \] \[\sqrt{6 \ 1 \ 2 \]} \[\sqrt{3 \ 0 \ 4 \]} \] \[\sqrt{6 \ 1 \ 2 \]} \[\sqrt{2 \ 0 \ 0 \} \cdot \frac{1}{3} \((3 \cdot 0) \) \[M = 1 \left(4 - 0) - 2 \left(20 - 6 \right) + 3 \left(0 - 3 \right) \] \[= 4 \ 2 \ 8 \ 4 9 \] \[= \qqqq \
M = \[1 \ 2 \ 3 \] = \[1 \ 2 \ 3 \] interchanging \[3 \ 0 \ 4 \] \[5 \ 1 \ 2 \] \R ₂ \R ₂ \[5 \ 1 \ 2 \] \[3 \ 0 \ 4 \] \[(a) 2 \ H \ 0! \] \[(a) 3 \ 0 \ 4 \] \[(a) 4 \ 0! \] \[(a) 4 \ 2 \ 8 \ 7 \] \[(a) 4 \ 2 \ 8 \ 7 \] \[(a) 4 \ 2 \ 3 \] \[(a) 4 \ 3 \ 4 \ 5 \] \[(a)
M = \[1 \ 2 \ 3 \] = \[1 \ 2 \ 3 \] interchanging \[3 \ 0 \ 4 \] \[5 \ 1 \ 2 \] \R, \(SR_3 \) \[\left(5 \ 1 \ 2 \] \] \[\left(3 \ 0 \ 4 \] \] \[\left(4 \ 0 \right) \] \[\left(2 \ 0 \ 0 \right) \] \[\left(4 \ 0 \right) \] \[\left(2 \ 0 \ 0 \right) \] \[\left(3 \ 4 \ 0 \right) \] \[\left(3 \ 4 \ 5 \] \] \[\left(2 \ 0 \ 0 \right) \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \] \[\left(3 \ 4 \ 5 \] \]
(ase # 02 [M]=1(0-4)-2(20-6)+3(3-0) M =1(4-0)-2(20-6)+3(0-3) = -4-28+9 = 4+28+9 = -23 3) All-zero property 21 all the elements of any row or column are in matrix zero than its determinant is zero. e.g. M= 3 4 5]
(ase # 02 [M]=1(0-4)-2(20-6)+3(3-0) M =1(4-0)-2(20-6)+3(0-3) = .4-28+9 = 4+28+9 = .23 = 23 3) All-zero property 21 all the elements of any row or column are in matrix zero than its determinant is zero. e.g M: 3 4 5]
(ase # 0] (ase # 02 1M1: 1(0-4)-2(20-6)+3(3-0) M1: 1(4-0)-2(20-6)+3(0-3) : 4-28+9 = 4+28 +9 : -23 = 23 3) All-zero property gf all the elements of any tow or column are in matrix zero then its determinant is zero. e.g. M: [3 4 5]
M = 1(0-4)-2(20-6)+3(3-0) $ M = 1(4-0)-1(20-6)+3(3-6)= -4-28+9$ $= 4+28+9= -23$ $= 233) All-zero property21 all the elements of any row or column are in matrix zero than its determinant is zero. e.g$
111 = 1 (0-4)-2(20-6)+3(3-0) M = 1 (4-0)-1(20-6)+3 3 = .4-28+9 = 4+28+9 = .23 = 23 3) All-200 property 21 all the elements of any sow or column are in matrix zero than its determinant is zero. e.g M = [3 4 5]
2) All-zero property 2) all the elements of any row or column are in matrix zero than its determinant is zero. e.g. M: [3 4 5]
3) All-zero property 21 all the demonts of any row or column are in matrix zero than its determinant is zero. e.g M: [3 4 5]
3) All-zero property 21 all the elements of any row or column are in matrix zero than its determinant is zero. e.g M: 3 4 5]
91 all the elements of any tow or column are in matrix zero than its determinant is zero. e.g. M: [3 4 5]
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determinant is zero. e.g M: [3 4 5]
determinant is zero. e.g M: [3 4 5]
M: [3 4 5]
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101: 0
[6,0]
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Date		1
4)	Repetion or Propostionality	1
	If two yours or columns in matrix	,
	are some than determinant of that	
	matrix will be 2000, eig	
	M = 2 3 = 1 M = 0	
	2 2 2	
5)	Scalar multiplication	
	If elements of a sow or column are multiplied by any non-zero constant then determinant also gets multiplied by same constant. esg	
	multiplied by any non-zero constant	
	then determinant also gets multiplied	1.44
	by same constant, eg	3)
	12	_
	6 8 9 6 8 9 6 8 9	-
	Here K=3, which is constant value.	
6)	Sun property	
	If dements of rows or column of a	
	Il dements of rows or column of a determinant are expressed as sum of two or more ferms, then determinant can be	
	expressed as a sum I have as	
	more determinants. e.g	
y * 1 '		

Date		
	2.9 a b c a	9
7)	Invaziance property	_
	Suppose any scalar multiplied of corresponding elements of other two rows or columns are added to every element of any row or column of a determinant on this case,	
	value of deferminant remains same.	
	$ \begin{array}{c cccccccccccccccccccccccccccccccccc$	
8)	Factor property	
	9/ determinant a becomes zero when we	
	insert x = A then (x- x) is factor of A	(01
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
	Here N; denotes the cofactor of then slement aij of a matrix.	

1 the elements in determinant is 1 the elements in determinant is 1 to and above the diagonal are 1 to a determinant is the product 1 to a diagonal elements. e.g., 1	Dat	Triongle property
bolow and above the diagonal are zero than determinant is the product of diagonal elements. e.g.; $A: \begin{bmatrix} 1 & 0 & 0 \\ 2 & 4 & 0 \end{bmatrix}$, $ A = \begin{bmatrix} 1 & 0 & 0 \\ 2 & 4 & 0 \end{bmatrix}$ $3 = \begin{bmatrix} 5 & 6 \end{bmatrix}$, $ A = \begin{bmatrix} 8 & 7 & 6 \\ 3 & 5 & 6 \end{bmatrix}$ Same if $A = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ $0 = \begin{bmatrix} 6 & 1 & 1 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 7 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ $0 = \begin{bmatrix} 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 7 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ Determinant of cofactor matrix $A = \begin{bmatrix} 1 & 1 & 1 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix} = \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 1 \end{bmatrix} = \begin{bmatrix} 1 $	9/	Total de la constant
bolow and above the diagonal are zero than determinant is the product of diagonal elements. e.g.; $A: \begin{bmatrix} 1 & 0 & 0 \\ 2 & 4 & 0 \end{bmatrix}$, $ A = \begin{bmatrix} 1 & 0 & 0 \\ 2 & 4 & 0 \end{bmatrix}$ $3 = \begin{bmatrix} 5 & 6 \end{bmatrix}$, $ A = \begin{bmatrix} 8 & 7 & 6 \\ 3 & 5 & 6 \end{bmatrix}$ Same if $A = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ $0 = \begin{bmatrix} 6 & 1 & 1 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 7 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ $0 = \begin{bmatrix} 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 7 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ Determinant of cofactor matrix $A = \begin{bmatrix} 1 & 1 & 1 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix} = \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 1 \end{bmatrix} = \begin{bmatrix} 1 $		of the elements in determinant is
2010 $ A = A =$		and above the dagonar are
of diagonal elements. e.g., $A = \begin{bmatrix} 1 & 0 & 0 \\ 2 & 4 & 0 \end{bmatrix}$, $ A = \begin{bmatrix} 1 & 0 & 0 \\ 2 & 4 & 0 \end{bmatrix}$ $A = \begin{bmatrix} 3 & 5 & 6 \end{bmatrix}$ $A = \begin{bmatrix} 8 & 1 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ $A = \begin{bmatrix} 8 & 1 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ $A = \begin{bmatrix} 0 & 0 & 4 \end{bmatrix}$ $A = \begin{bmatrix} 0 & 0 $		In w 1
$A = \begin{bmatrix} 1 & 0 & 0 \\ 2 & 4 & 0 \\ 3 & 5 & 6 \end{bmatrix}, A = \begin{bmatrix} 1 & 0 & 0 \\ 2 & 4 & 0 \\ 3 & 5 & 6 \end{bmatrix}$ $S_{0} = \begin{bmatrix} 1A = 0 \\ 3 & 5 & 6 \end{bmatrix}$ $A = \begin{bmatrix} 8 & 1 & 6 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 1A = \begin{bmatrix} 8 & 1 & 6 \\ 0 & 3 & 5 \\ 0 & 0 & 4 \end{bmatrix}$ $A = \begin{bmatrix} 0 & 1 & 6 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 0 & 0 & 6 \\ 0 & 0 & 6 \end{bmatrix}$ $A = \begin{bmatrix} 1A = 0 \\ 0 & 0 & 4 \end{bmatrix}$ $A = \begin{bmatrix} 1A = 0 \\ 0 & 0 & 4 \end{bmatrix}$ $A = \begin{bmatrix} 1A = 0 \\ 0 & 0 & 6 \end{bmatrix}$	* *	al diagonal elements. e.g.;
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		6
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		A=[100] A = 100
So, $ A = 0$ same $ A = 0$ $A = \begin{bmatrix} B & 1 & 6 \\ 0 & 3 & 5 \end{bmatrix} = 2$ $\begin{bmatrix} 0 & 3 & 5 \\ 0 & 0 & 4 \end{bmatrix} = \begin{bmatrix} 8 & 1 & 6 \\ 0 & 3 & 5 \end{bmatrix}$ $\begin{bmatrix} 0 & 0 & 4 \end{bmatrix} = \begin{bmatrix} 0 & 0 & 6 \\ 0 & 0 & 6 \end{bmatrix}$ Peterminant of cofactor matrix $A = \begin{bmatrix} a_{11} & a_{12} & a_{13} & 3 & 11 \\ a_{21} & a_{22} & a_{23} & a_{21} & a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} & a_{31} & a_{32} & a_{33} \end{bmatrix}$		
$ A = 0$ $same if$ $A = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = 2$ $0 & 0 & 4 \end{bmatrix} = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \\ 0 & 0 & 6 \end{bmatrix}$ $ A = 0$ $ A $		[3 5 6] 3 5 6
$ A = 0$ $same if$ $A = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = 2$ $0 & 0 & 4 \end{bmatrix} = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \\ 0 & 0 & 6 \end{bmatrix}$ $ A = 0$ $ A $	12	
$A = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 141 = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = \begin{bmatrix} 0 & 3 & 5 \\ 0 & 0 & 4 \end{bmatrix}$ $A = \begin{bmatrix} 141 = 0 \\ 0 & 0 & 4 \end{bmatrix}$	7.0	1A1 = 0
$A = \begin{bmatrix} 8 & 7 & 6 \\ 0 & 3 & 5 \end{bmatrix} = 2 0 3 5 \\ 0 & 0 9 0 0 6 \end{bmatrix}$ $ A = 0$ $ A = 0$ $ A = 0$ $ A = 0$ $ A = a_{11} a_{12} a_{13} A = A_{11} a_{12} A_{13} = A_{11} A_{12} A_{13} = A_{11} A_{12} A_{13} = A_{11} A_{12} A_{13} = A_{11} A_{12} A_{13} A_{13} A_{14} A_{15} A_{15} $	77	come il
$ A = 0$ Determinant of cofactor matrix $ A = a_{11} a_{12} a_{13} A = x_{11} x_{12} x_{13} a_{21} a_{22} a_{23} x_{21} x_{22} x_{23} a_{21} x_{22} x_{23} x_{21} x_{22} x_{23} x_{23$		June 1
A = 0 Determinant of cofactor matrix $ A = A$		0. [8 7 1] 111- [8 2 6]
Determinant of cofactor matrix $\Delta = \begin{vmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{vmatrix}$ $A_{11} = \begin{vmatrix} \alpha_{11} & \alpha_{12} & \alpha_{13} \\ \alpha_{21} & \alpha_{32} & \alpha_{23} \\ \alpha_{31} & \alpha_{32} & \alpha_{33} \end{vmatrix}$ $A_{11} = \begin{vmatrix} \alpha_{11} & \alpha_{12} & \alpha_{13} \\ \alpha_{21} & \alpha_{32} & \alpha_{23} \\ \alpha_{31} & \alpha_{32} & \alpha_{33} \end{vmatrix}$		
$A = 0$ Determinant of cofactor matrix $\Delta = \begin{vmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{11} & a_{12} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} & a_{22} & a_{23} \\ a_{21} & a_{22} & a_{23} \end{vmatrix}$ $A = \begin{vmatrix} a_{21} &$		
) Determinant of cofactor matrix $\Delta = \begin{bmatrix} a_{11} & a_{12} & a_{13} & & 11 = \begin{bmatrix} x_{11} & x_{12} & x_{13} \\ a_{21} & a_{22} & a_{23} & & x_{21} & x_{22} & x_{23} \\ a_{31} & a_{32} & a_{33} & & x_{31} & x_{32} & x_{33} \end{bmatrix}$		
Determinant of cofactor matrix $\Delta = \begin{vmatrix} a_{11} & a_{12} & a_{13} & 8 & 11 = x_{11} & x_{12} & x_{13} \\ a_{21} & a_{22} & a_{23} & x_{21} & x_{22} & x_{23} \\ a_{31} & a_{32} & a_{33} & x_{31} & x_{32} & x_{33} \end{vmatrix}$		
Determinant of cofactor matrix $ \Delta = \begin{bmatrix} a_{11} & a_{12} & a_{13} & \$ & 11 = \begin{bmatrix} \chi_{11} & \chi_{12} & \chi_{13} \\ a_{21} & a_{22} & a_{23} \end{bmatrix} \\ $		1A1=0
$\Delta = \begin{bmatrix} a_{11} & a_{12} & a_{13} & & & 11 = & x_{11} & x_{12} & x_{13} \\ a_{21} & a_{22} & a_{23} & & & x_{21} & x_{22} & x_{23} \\ a_{31} & a_{32} & a_{33} & & & x_{31} & x_{32} & x_{33} \end{bmatrix}$		
$\Delta = \begin{bmatrix} a_{11} & a_{12} & a_{13} & & & 11 = & x_{11} & x_{12} & x_{13} \\ a_{21} & a_{22} & a_{23} & & & x_{21} & x_{22} & x_{23} \\ a_{31} & a_{32} & a_{33} & & & x_{31} & x_{32} & x_{33} \end{bmatrix}$	0)	Determinant of cofactor matrix
$\begin{bmatrix} a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{bmatrix} \begin{bmatrix} \chi_{1} & \chi_{2} & \chi_{3} \\ \chi_{2} & \chi_{3} & \chi_{3} \\ \chi_{3} & \chi_{3} & \chi_{3} \end{bmatrix}$		
$\begin{vmatrix} a_{21} & a_{32} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{vmatrix} = \begin{vmatrix} a_{21} & a_{22} & a_{33} \\ a_{31} & a_{32} & a_{33} \end{vmatrix}$		
1 431 432 33		1 (1-1 (1))
		a1 a2 a2 x2 x2 x3
Here 11 sepresents the colactors of the colombia of aij in 1.		
the elements of aij in VI.		Here It represents the colactors
0		the lements of aij in VI.
		0