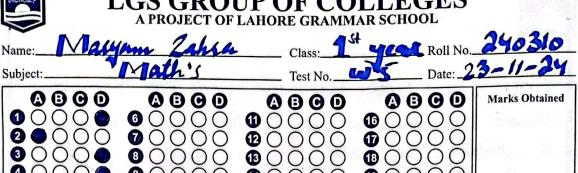
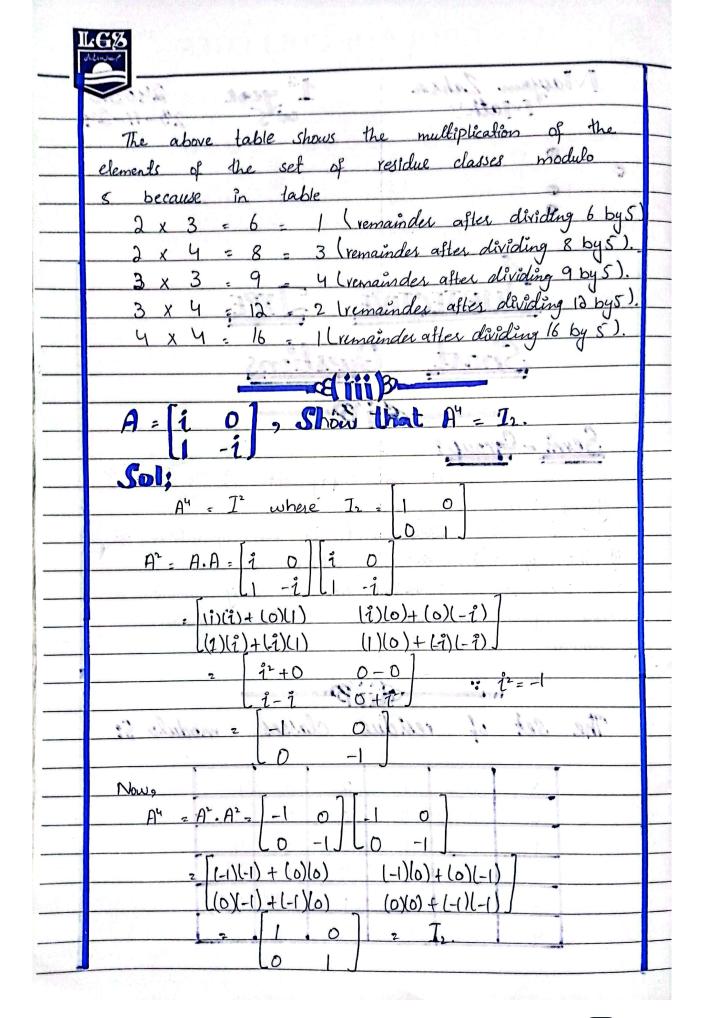
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LG8	Sheet # LGS GROUP OF COLLEGES A PROJECT OF LAHORE GRAMMAR SCHOOL Student Name:				
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_	LONG QUESTIONS				
-	Luig questions				
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	Proce that all 2 x 2 non-singular				
	natrices over the real field from a				
	Prove that all 2 x 2 non-singular natrices over the real field from a non-abelian group under multiplication:				
	in the same of the same				
	Sols-				
L	let G{a.b, a,b,c,d & R,ad-bc +D}				
-	l[c ol]				
-	c-1 let A, B & G.				
-	Show that				
1	$A = \left[\begin{array}{c ccc} a_1 & b_1 \end{array} \right] \cdot B = \left[\begin{array}{c ccc} a_2 & b_2 \end{array} \right]$				
t	$A \cdot B = \begin{bmatrix} a_1 & b_1 & a_2 & b_2 \end{bmatrix}$				
T	C_1 C_2 C_3 C_4 C_5 C_5				
	= qia+ bic ab+ bd= eq				
1	Ciar +dicz Cibr +didz				
L	=) G is closed under multiplication.				
1	(-2 's' is assoclative in G.				
┡	because in matrices, $\forall A.B.C.e.G$				
1	(A.B).C = A. (B.C)				
-	C-3 I2 2 1 0 & G which is an identity element				
	, , , , , , , , , , , , , , , , , , , ,				
	In G Such Hat V A & G AIr = A = IrA.				
	=> Identity element exists in G. C-4 V A & G F A-1 & G such that				
	A, A-1 = I2 = A-1 A.				
	we can check it as				
1					

