

EXPERIENTIAL LEARNING ACTIVITY

SUBJECT: MATHEMATICS

GRADE: 10th

CHAPTER 3	PAIR OF LINEAR EQUATIONS IN TWO VARIABLES					
TOPIC/CONCEPT	Consistent and Inconsistent pair of linear equations					
NAME OF THE ACTIVITY	To verify the conditions for consistency or inconsistency of a pair of linear equations in two variables by graphical method. $X+Y-7=0$ and $2X-Y+1=0$ $X-2Y+3=0$ and $4X-8Y+12=0$ $5X+3Y=30$ and $5X+3Y=1$					
TYPE OF ACTIVITY	Individual					
LEARNING OUTCOME	Students will be able to understand that some pairs of linear equations have : INTERSECTING LINES (CONSISTENT) having unique solution COINCIDENT LINES (CONSISTENT) having infinitely many solutions PARALLEL LINES (INCONSISTENT) having no solution					
PROCEDURE/ METHODOLOGY	Consider all the three pairs of linear equations $X+Y-7=0$ and $2X-Y+1=0$ $X-2Y+3=0$ and $4X-8Y+12=0$ $5X+3Y=30$ and $5X+3Y=1$ ❖ Draw the graph of each set of pair of linear equation on graph paper ❖ Observe the graphs and check the lines are intersecting, parallel or coincident. ❖ Prepare the observation table					
	OBSERVATION TABLE					
	GIVEN EQUATIONS	$\frac{a_1}{a_2}$	$\frac{b_1}{b_2}$	$\frac{c_1}{c_2}$	Compare the ratios	Types of lines
	$X+Y-7=0$; $2X-Y+1=0$					Consistent Or inconsistent
	$X-2Y+3=0$ $4X-8Y+12=0$					
	$5X+3Y=30$ $5X+3Y=1$					
QUESTIONS	1. What type of lines we will get if a pair of linear equations is consistent? 2. How many solutions does the pair of $X=0$ and $X=4$ have? 3. Two equations in two variables taken together are also called.....					

SOLUTIONS/ HINTS	1.intersecting or coincident 2.no solution 3.simultaneous equaions
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