



INDIAN SCHOOL DARSAIT

DEPARTMENT OF MATHEMATICS



Subject : MATHEMATICS	Topic : Pair of linear equations in two variables	Date of Worksheet : 14-05-2017
Resource Person : Mrs.Indu .P		Date of submission : 21-05-2017
Name of the Student: _____	Class & Division: _____	Roll Number : ____

Sl.No.	Section A-[Basic skills]	
1.	Solve for x : $-4(x + 2) = 3(x - 1)$	
2.	Solve for x : $5(x - 4) = -5$	
3.	$5\frac{1}{2} \div \frac{77}{4} =$	
4.	3214×435	
5.	$456 \div 7$	
	Section B - [Chapter based questions]	
1.	For what values of k the following system of equations has no solution? i) $kx - 5y = 2$ $6x + 2y = 7$ ii) $(3k + 1)x + 3y - 2 = 0$ $(k^2 + 1)x + (k - 2)y - 5 = 0$	1
2.	For what values of k the following system of equations will be inconsistent? i) $4x + 6y = 11$ $2x + ky = 7$ ii) $kx + 3y + (2-k) = 0$ $12x + ky = k$	1
3.	Find the value of c for which the system $cx + 2y = 5$, $3x + y = 1$ has i) a unique solution and ii) no solution	2
4.	Find the values of a and b for which the following systems of equations has infinitely many solutions. i) $(2a - 1)x - 3y = 5$ $3x + (b-2)y = 3$ ii) $3x + 4y = 12$ $(a + b)x + 2(a - b)y = 5a - 1$	3
5.	Solve graphically i) $2x + 3y = 8$ $x - 2y + 3 = 0$ ii) $x + y = 3$ $3x - 2y = 4$	4
6.	Solve for x and y : i) $11x + 15y + 23 = 0$ $7x - 2y - 20 = 0$ ii) $3x - 7y + 10 = 0$ $y - 2x - 3 = 0$	3
7.	Solve for x and y : i) $ax + by - a + b = 0$ $bx - ay - a - b = 0$ ii) $mx - ny = m^2 + n^2$ $x + y = 2m.$	4



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8.	Solve for x and y : i) $x + \frac{6}{y} = 6$; $3x - \frac{8}{y} = 5$ ii) $\frac{5}{x+y} - \frac{2}{x-y} = -1$; $\frac{1}{x+y} + \frac{7}{x-y} = 10$	4
9.	Ten years hence, a man's age will be twice the age of his son. Ten years ago, the man was four times as old as his son. Find their present ages.	4
10.	The length of a room exceeds its breadth by 3 meters. If the length is increased by 3 meters and breadth is decreased by 2 meters, the area remains the same. Find the length and breadth of the room.	4
11.	A person can row a boat at the rate of 5km/hr in still water. He takes thrice as much time in going 40km upstream as in going 40km downstream. Find the speed of the stream.	4
12.	The sum of the numerator and denominator of a fraction is 3 less than twice the denominator. If the numerator and denominator are decreased by 1, the numerator becomes half the denominator. Determine the fraction.	4

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