INDIAN SCHOOL AL WADI AL KABIR

Class IX, Mathematics

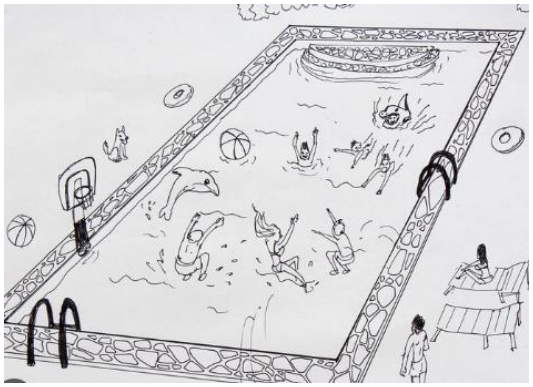
Worksheet- LINEAR EQUATION IN TWO VARIABLES

OBJECTIVE TYPE (1 Mark)

Q.1	The point where 3x + 2y =12 intersects at y-axis is:							
	A	(6,0)	B	(0,6)	C	(0,4)	D	(4,0)
Q.2.	In one day, cricket match, Raina and Dhoni scored 198 runs. Express this as a linear equation in two variables.							
	A	x + 98 = 100	B	x − y = 98	C	x + y = 198	D	x + y = 98
Q.3.	Equation of a line which is 7 units distance above the y-axis							
	A	y = 7	B	x + 7 = y	C	x = 7	D	x – y = 0
Q.4.	Graph of y = −5 is a line							
	A	Parallel to y-axis	**B**	Parallel to x-axis	**C**	Passes through the origin	**D**	None of these
Q.5.	The graph of the equation x + a = 0 is a line parallel to:							
	A	X-axis	B	Y-axis	C	Passes through the origin	D	None of these
Q.6.	If the linear has solutions (–5, 5), (0, 0), (5, –5), then the equation of the line is:							
	A	x – y = –10	B	x – y = 10	C	x + y = 0	D	x – y = 7
Q.7.	x = 5, y = 2 is a solution of the linear equation:							
	A	x + 2y = 7	**B**	5x + 2y = 7	**C**	x + y = 7	**D**	5x + y = 7
Q.8.	The equation of x-axis is of the form:							
	A	x = 0	**B**	y =0	**C**	x+y = 0	**D**	x =y

SECTION B (2mark)

Q.9.	Express y in terms of x, given that 3x + 2y = 8. Check whether the point (4, –2) lies on the given line.
Q.10.	Express $5y = 2x - 7$ in the form of ax + by + c = 0 and indicate the values of a, b and c.
Q.11.	If the point (2k−3, k+2)lies on the graph of the equation 2x+3y +15 =0, find value of k.
Q.12.	If (0, 2) is a solution of the linear equation 2x + 3y = k, find the value of k.

Qn.13.	Write any four solutions of the linear equation $\frac{2}{3}x - y = 2$.
	SECTION C (3 MARKS)
Q.14.	Given the equation, 2x + y = 7 (i) What is the value of x, when the value of y is 7? (ii) What is the value of y, when the value of x is -4? (iii) Find one more solution of the above equation?
Q.15.	For what value of p; x=2, y=3 is a solution of the linear equation (p + 1) x – (2p + 3) y– 1 = 0 and write the equation.
Q.16.	If the point (4,3) lies on the linear equation $3x - ay = 6$, find whether $(-2, -6)$ also lies on the same line?
Q.17.	After 5 years, the age of father will be two times the age of his son. Write a linear equation in two variables to represent this statement
	SECTION D (4 marks)
Q.18.	Draw the graph of the equation 3x $-$ 5y $-$15 =0. At what points does the graph cut the x axis and y axis.
Q.19.	Solve the equation $5(y - 3) - 3(y + 1) = 0$. and give the geometric representation in: i) One variable ii) Two variables.
Q.20.	Swimming pools in villages offer numerous benefits, promoting health and community engagement. They provide a space for exercise, teach vital water safety skills, foster social interactions, and offer recreational opportunities, enhancing the overall well-being of village residents. The perimeter of a rectangular swimming pool is 154 m. Its length is 2 m more than twice its breadth.  i) Write a linear equation for this information and write the values of a, b and c. ii) Find any four solutions of this linear equation. iii) Draw a graph of the linear equation. iv) What is the length and the breadth of the pool which satisfies the given equation.

Answers								
Answers	**1**	B	**2**	C	**3.**	A	**4**	B
	5	B	**6**	C	**7**	C	**8**	B
	9	Y= $\frac{1}{2}$(8-3x) Yes	**10**	a=2, b=−5, c=−7	**11**	$k = \frac{-15}{7}$	**12**	K=6
	13	Any four	**14**	i)x=0 ii)y=15 iii)(0,7)	**15**	P=−2 x − y= −1	**16.**	a=2, lies on the line
	17	x-2y=5	**18**	Graph	**19.**	y=9	**20**	i)y=2x+2 2x−y+2=0 a=2,b=−1, c=2 ii)any 4 iii)graph iv)any value of x,&y which satisfies the given equation

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