CHAPTER TEST: LINEAR EQUATIONS IN TWO VARIABLES
Mathematics | Class IX (2026/LinEq/09/NCERT/001)
Time: 1.5 Hours **Max. Marks: 33**

GENERAL INSTRUCTIONS

– All questions are compulsory.

– The question paper consists of **four sections: A, B, C, and D**.

– Section A contains **5 Multiple Choice Questions (MCQs)** of **1 mark each**.

– Section B contains **4 Short Answer Questions** of **2 marks each**.

– Section C contains **4 Long Answer Questions** of **4 marks each**.

– Section D contains **4 True or False Questions** of **1 mark each**.

Section A: Multiple Choice Questions (1 Mark Each)

1. The linear equation $3x - y = x - 1$ when expressed in the form $ax + by + c = 0$ gives:
   (a) $2x - y + 1 = 0$ (b) $4x - y - 1 = 0$ (c) $2x + y + 1 = 0$ (d) $3x - y + 1 = 0$

2. If $(2, k)$ is a solution of the equation $2x + 3y = 13$, then the value of k is:
   (a) 4 (b) 3 (c) 2 (d) 5

3. The graph of the equation $x = -3$ is a line:
   (a) Parallel to x-axis (b) Parallel to y-axis (c) Passing through origin (d) None of these

4. Any point on the line $y = x$ is of the form:
   (a) $(a, -a)$ (b) $(0, a)$ (c) $(a, 0)$ (d) (a, a)

5. The equation $2x + 5 = 0$ in two variables is written as:
   (a) $2x + 0y + 5 = 0$ (b) $0x + 2y + 5 = 0$ (c) $2x + 5y = 0$ (d) $2x + 5y + 0 = 0$

Section B: Short Answer Questions (2 Marks Each)

6. Find two solutions for the linear equation $4x + 3y = 12$. Check if $(3, 0)$ is a solution.

7. Express y in terms of x for the equation $3x - 2y = 8$. Hence, find the value of y when $x = 2$.

8. Write the equations of two lines passing through the point $(1, 4)$. How many more such lines are possible?

9. If the point $(3, 4)$ lies on the graph of $3y = ax + 7$, find the value of a. (NCERT Important)

Section C: Long Answer Questions (4 Marks Each)

10. Draw the graph of the linear equation $2x + y = 6$. From the graph, find the coordinates of the point where the line cuts the x-axis and the y-axis.

11. The taxi fare in a city is Rs 20 for the first kilometer and Rs 12 per km for the subsequent distance. Taking distance covered as x km and total fare as Rs y, write a linear equation and draw its graph.

12. Solve the equation $2x + 1 = x - 3$ and represent the solution on:
    (a) The number line (b) The Cartesian plane.

13. Yamini and Fatima together contributed Rs 200 towards the Relief Fund. Write a linear equation to satisfy this data and draw the graph. Use the graph to find Yamini's contribution if Fatima contributed Rs 120.

Section D: True or False (1 Mark Each)

1. Every point on the graph of a linear equation in two variables is a solution of the equation.

2. The graph of $y = m$ is a line parallel to the y-axis.

3. An equation of the form $ax + by + c = 0$ where $a^2 + b^2 \neq 0$ is called a linear equation in two variables.

4. A linear equation in two variables has a unique solution.

NCERT IMPORTANT HIGHLIGHTS

Focus Points

Students should focus on the following from the NCERT textbook:

- Exercise 4.2: Finding solutions and verifying points.
- Exercise 4.3: Graphing and application-based word problems (Taxi fare, Temperature conversion).
- Summary: Understanding that the graph of $ax + by + c = 0$ is always a straight line.