

Mathematics

Practice Test Paper 1

(Chapter 3: Pair of Linear Equations in Two Variables)

Class X | 2026-27

Time Allowed: 45 Minutes

Maximum Marks: 25

General Instructions

1. All 13 questions are compulsory. The paper has four sections: A, B, C and D.
2. Section A - 5 marks; Section B - 8 marks; Section C - 9 marks; Section D - 3 marks.
3. Choose one correct option in Section A. Show the necessary steps and reasoning in Sections B, C and D.
4. Use algebraic methods where required. Use of calculators is not allowed.

SECTION A

(5 questions $\times$ 1 mark = 5 marks)

1. Two distinct intersecting straight lines represent a pair of equations with:

- (A) no solution
- (B) one solution
- (C) two solutions
- (D) infinitely many solutions

2. Which ordered pair satisfies both $x + y = 12$ and $x - y = 4$?

- (A) (4, 8)
- (B) (6, 6)
- (C) (8, 4)
- (D) (10, 2)

3. To eliminate x from $2x + 3y = 9$ and $4x - y = 11$, first multiply the first equation by:

- (A) 2
- (B) 3
- (C) 4
- (D) -1

4. The lines $x = 5$ and $y = -2$ meet at:

- (A) (-2, 5)
- (B) (5, 0)
- (C) (0, -2)
- (D) (5, -2)

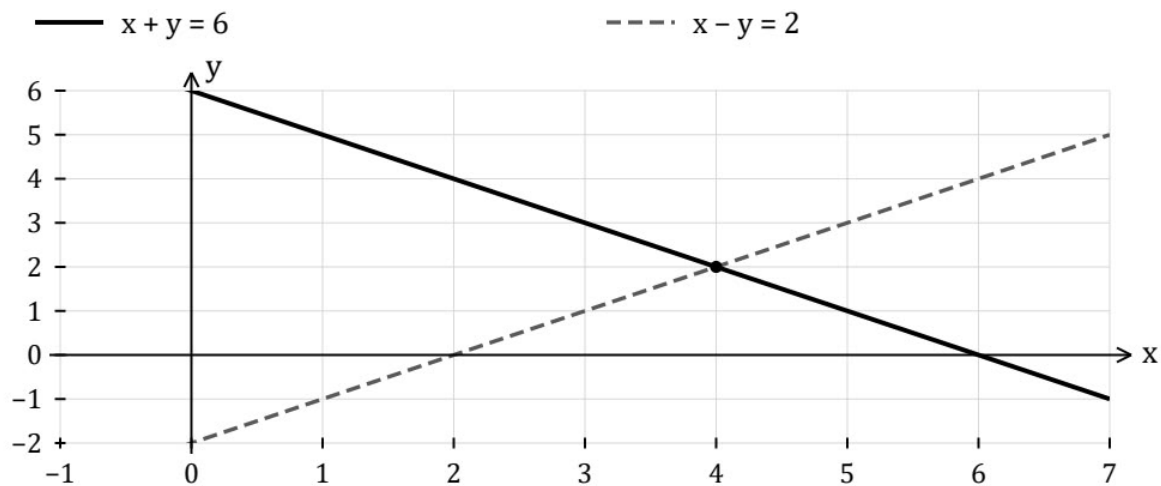
5. If a pen costs ₹ x and a notebook costs ₹ y , two pens and three notebooks costing ₹84 give:

- (A) $3x + 2y = 84$
- (B) $2x + 3y = 84$
- (C) $2x - 3y = 84$
- (D) $x + y = 84$

SECTION B

(4 questions $\times$ 2 marks = 8 marks)

6. Solve $x + y = 14$ and $x - y = 4$ by substitution.
7. For which values of k do $x + 2y = 5$ and $3x + ky = 15$ have a unique solution?
8. A student says $2x + 3y = 8$ and $4x + 6y = 16$ have only the solution $(1, 2)$. Explain the error and give a different common solution.
9. Read the common solution of the two lines shown below. State whether the pair is consistent.



SECTION C

(3 questions $\times$ 3 marks = 9 marks)

10. Ten students entered a Mathematics quiz. The number of girls was four more than the number of boys. Form a pair of equations and find both numbers.
11. Two walkers start 16 km apart. Walking towards each other, they meet in 2 hours. Walking in the same direction, with the faster walker behind, they meet in 8 hours. Find their speeds.
12. Find a and b so that $ax + 3y = 12$ and $8x + by = 24$ have infinitely many solutions.

SECTION D

(Application Based Question - 3 marks)

13. A museum sells adult tickets for ₹ x and student tickets for ₹ y . Two adult and three student tickets cost ₹390; four adult and one student ticket cost ₹530.
- (i) Form the pair of equations.
- (ii) Find the price of a student ticket.
- (iii) Find the cost of one adult and two student tickets.