

Mathematics

Practice Test Paper 6

(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. The pair $4x - 6y = 10$, $2x - 3y = 7$ represents:

- (A) intersecting lines
- (B) coincident lines
- (C) distinct parallel lines
- (D) perpendicular axes

2. If two lines meet at $(-3, 4)$, their common solution is:

- (A) $x = 4, y = -3$
- (B) $x = 3, y = -4$
- (C) $x = -4, y = 3$
- (D) $x = -3, y = 4$

3. The equation $5x - y = 8$ can be written as:

- (A) $y = 5x - 8$
- (B) $y = 8 - 5x$
- (C) $y = 5x + 8$
- (D) $y = \frac{x-8}{5}$

4. Which pair has a unique solution?

- (A) $x + 2y = 4, 2x + 4y = 8$
- (B) $x + 2y = 4, 2x - y = 7$
- (C) $x + 2y = 4, 3x + 6y = 15$
- (D) $x + 2y = 4, -x - 2y = -4$

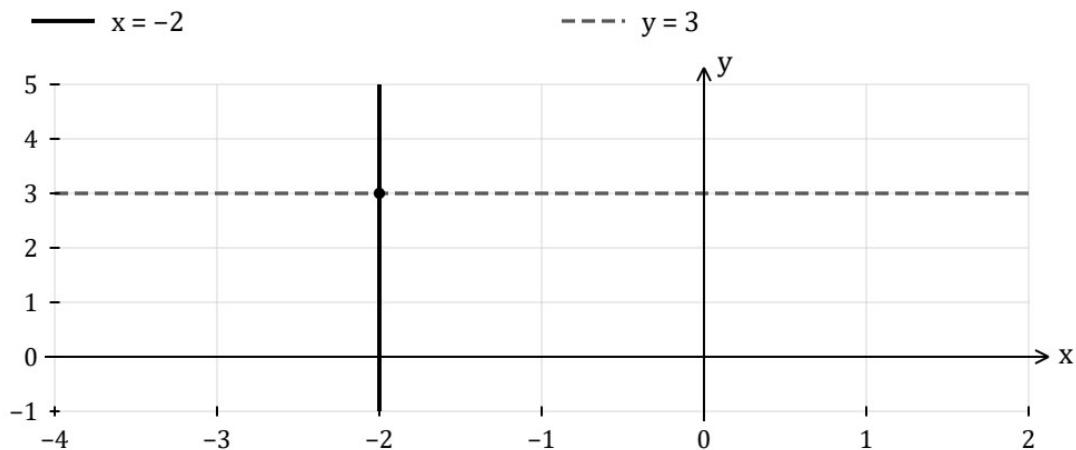
5. A taxi has fixed charge ₹ f and a distance charge ₹ r per kilometre. A 6 km journey costs ₹98. Which equation is correct?

- (A) $6f + r = 98$
- (B) $f + r = 6$
- (C) $f + 6r = 98$
- (D) $6(f + r) = 98$

SECTION B

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

6. Solve $x + y = 5$ and $2x - 3y = 4$ by elimination.
7. For what value of k does $3x + 5y = 0$, $kx + 10y = 0$ have a solution other than $(0, 0)$? Give one such solution.
8. Two positive numbers have sum 17. Twice the smaller exceeds the larger by 4. Form and solve a pair of equations.
9. Read the common solution of the lines shown and describe the direction of each line.



SECTION C

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

10. A coach buys seven bats and six balls for ₹3800. Three bats and five balls cost ₹1750. Find the cost of one bat and one ball.
11. A boat travels 20 km downstream in 2 hours and 4 km upstream in 2 hours. Find its speed in still water and the stream's speed.
12. A store has ₹20 and ₹50 tokens. There are 27 tokens worth ₹930 in total. Find the number of each type using elimination.

SECTION D

(Application Based Question - 3 marks)

13. Short- and long-route bus fares are ₹ x and ₹ y . Six short and four long fares total ₹260; three short and five long fares total ₹235.
- (i) Write the equations.
- (ii) Find the long-route fare.
- (iii) Find the total of three short-route and two long-route fares.