

EXAM-DAY · 90-MIN REVISION CARD

Pair of Linear Equations in Two Variables

Print this · Fold it · Carry to the exam-hall gate · Revise once · Then walk in.

FORMULAS & KEY RESULTS

STANDARD FORM: $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$
(move everything to LHS).

UNIQUE SOLUTION
(intersecting lines): $a_1/a_2 \neq b_1/b_2$

NO SOLUTION (parallel lines):
 $a_1/a_2 = b_1/b_2 \neq c_1/c_2$

INFINITE SOLUTIONS
(coincident lines): $a_1/a_2 = b_1/b_2 = c_1/c_2$

SUBSTITUTION: isolate easier variable → plug into other equation → solve → back-substitute.

ELIMINATION: scale to equal coefficient → add/subtract → solve 1-variable → back-substitute.

WORD PROBLEM ROUTINE: (1) define variables (2) translate each sentence to an equation (3) solve (4) verify in plain English.

TOP 5 PYQ PATTERNS

1 Word problem (age / boat / fraction / digit / work) — set up + solve

4 marks · 45% of years

Define x,y in the first line. Translate each English sentence to one equation. Solve by elimination. Verify in plain English.

2 Solve a given pair by substitution or elimination

3 marks · 25% of years

Pick the simpler-coefficient equation. Substitute or scale-and-add. Always verify.

3 Find k for unique / no / infinite solutions

2 marks · 18% of years

Write LHS = 0 form (mind the c-sign). Compare a_1/a_2 , b_1/b_2 , c_1/c_2 . Pick the condition that matches the question's wording.

4 Graphical method — draw both lines and read the intersection

3 marks · 8% of years

Make a 3-point table for each line. Plot. Read solution from intersection. State the answer.

5 Identify nature (unique/no/infinite) without solving

1 mark · 4% of years

Just compute the three ratios. Don't solve the system.

90-MIN REVISION FLOW

0-15 min

Re-read consistency table; recite the 3 ratio-conditions aloud 3 times until automatic.

15-35 min

Solve 3 substitution problems + 3 elimination problems from the drill sheet.

35-60 min

Solve 2 word problems — one age, one boat/speed. Use the 4-step template (define → translate → solve → verify).

60-80 min

Do 2 'find k' consistency questions. Triple-check the c-sign each time.

80-90 min

Review misconceptions list. Close with the cheat-sheet visual on coincident vs parallel vs intersecting.

Confidence, not anxiety. You've practised this all year. Trust your steps. Don't change strategy on exam morning.
Helpline: **+91 70330 05444** · **readyforboards.com**