



Laying the foundation of lifelong success

CHAPTER 3

Pair Of Linear Equations In Two Variables

(Previous Years' Questions)

2 – Markers

1. Solve the following system of equations algebraically:

$$37x + 63y = 137$$

$$63x + 37y = 163. \quad (2025)$$

2. The two angles of a right angled triangle other than 90° are in the ratio 2 : 3. Express the given situation algebraically as a system of linear equations in two variables and hence solve it. (2025)

3. Solve the following system of equations algebraically:

$$73x - 37y = 109$$

$$37x - 73y = 1 \quad (2025)$$

4. Solve the following system of equations algebraically :

$$30x + 44y = 10; 40x + 55y = 13. \quad (2025)$$

5. (a) The cost of 2 kg apples and 1 kg of grapes on a day was found to be ₹ 320. The cost of 4 kg apples and 2 kg grapes was found to be ₹ 600. If cost of 1 kg of apples and 1 kg of grapes is x and y respectively, represent the given situation algebraically as a system of equations and check whether the system so obtained is consistent or not.

OR

(b) Solve for x and y :

$$\sqrt{2}x + \sqrt{3}y = 5 \quad \text{and}$$

$$\sqrt{3}x - \sqrt{8}y = -\sqrt{6}.$$

(2025)

6. (a) Solve the following pair of equations algebraically :

$$101x + 102y = 304$$

$$102x + 101y = 305$$

OR

(b) In a pair of supplementary angles, the greater angle exceeds the smaller by 50° . Express the given situation as a system of linear equations in two variables and hence obtain the measure of each angle.

(2025)

7. Solve the following system of linear equations

$$7x - 2y = 5 \text{ and } 8x + 7y = 15$$

and verify your answer.

(2024)

8. Solve the following system of linear equations :

$$2p + 3q = 13 \text{ and } 5p - 4q = -2$$

(2024)

9. Solve the following system of linear equations algebraically :

$$2x + 5y = -4; 4x - 3y = 5$$

(2024)

10. (a) If $2x + y = 13$ and $4x - y = 17$, find the value of $(x - y)$.

OR

- (b) Sum of two numbers is 105 and their difference is 45. Find the numbers. **(2024)**

11. (a) Solve the pair of equations $x = 3$ and $y = -4$ graphically.

OR

- (b) Using graphical method, find whether following system of linear equations is consistent or not:

$$x = 0 \text{ and } y = -7 \quad \textbf{(2023)}$$

12. (a) Solve the pair of equations $x = 5$ and $y = 7$ graphically.

OR

- (b) Using graphical method, find whether pair of equations $x = 0$ and $y = -3$ is consistent or not.

(2023)

