



Laying the foundation of lifelong success

CHAPTER 3

Pair Of Linear Equations In Two Variables

(Previous Years' Questions)

MCQ

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1. If a pair of linear equations in two variables is represented by two coincident lines, then the pair of equations has :
- (A) a unique solution
(B) two solutions
(C) no solution
(D) an infinite number of solutions (2026)
2. If the pair of linear equations : $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ is consistent and dependent, then
- (A) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$
(B) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} = \frac{c_1}{c_2}$
(C) $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$
(D) $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$ (2026)
3. Equation of a line coincident with $2.5x - 2y = 3$ is:
- (A) $5x - 4y = 3$
(B) $5x - 4y + 6 = 0$
(C) $15x - 12y - 3 = 0$
(D) $5x - 4y - 6 = 0$ (2026)
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4. The value of ' k ' for which the pair of linear equations $(k + 1)x + 2(1 - k)y = 15$; $4y = 3x - 8$ has no solution, is:

(A) 3
(B) $\frac{1}{5}$
(C) 5
(D) $\frac{37}{8}$

(2026)

5. If the pair of linear equations

$$2x + 3y = 5 \text{ and } 4ky - (1 - 3k)x = 6k + 2$$

represents coincident lines, then the value of ' k ' is :

(A) $-\frac{1}{3}$
(B) 3
(C) $\frac{1}{4}$
(D) 4

(Comptt., 2025)

6. The pair of linear equations

$$9x - 15y + 19 = 0 \text{ and } 5y - 3x - 9 = 0$$

represents two lines which are:

(A) intersecting exactly at one point.
(B) intersecting exactly at two points.
(C) parallel.

(D) coincident.

(Comptt., 2025)

7. If $x = 1$ and $y = 2$ is a solution of the pair of linear equations $2x - 3y + a = 0$ and $2x + 3y - b = 0$ then :

(A) $a = 2b$

(B) $2a = b$

(C) $a + 2b = 0$

(D) $2a + b = 0$

(2025)

8. The line represented by the equation $x - y = 0$ is:

(A) parallel to x -axis

(B) parallel to y -axis

(C) passing through the origin

(D) passing through the point $(3, 2)$

(2025)

9. The equation of a line parallel to the x -axis and at a distance of 3 units below x -axis is :

(A) $x = 3$

(B) $x = -3$

(C) $y = -3$

(D) $y = 3$

(2025)

10. The equation of a line parallel to y -axis and at a distance of 5 units to the right of y -axis is :

(A) $x = 5$

(B) $x = -5$

(C) $y = -5$

(D) $y = 5$

(2025)

11. The value of ' k ' for which the system of linear equations $6x + y = 3k$ and $36x + 6y = 3$ have infinitely many solutions is :

(A) 6

(B) $\frac{1}{6}$

(C) $\frac{1}{2}$

(D) $\frac{1}{3}$

(2025)

12. The value of ' p ' for which the equations $px + 3y = p - 3$, $12x + py = p$ has infinitely many solutions is :

(A) -6 only

(B) 6 only

(C) ± 6

(D) Any real number except ± 6

(2025)

13. The system of equations $2x + 1 = 0$ and $3y - 5 = 0$ has

(A) unique solution

(B) two solutions

- (C) no solution
(D) infinite number of solutions **(2025)**
14. The system of equations $x + 5 = 0$ and $2x - 1 = 0$, has
(A) No solution
(B) Unique solution
(C) Two solutions
(D) Infinite solutions **(2025)**
15. The system of equations $y + a = 0$ and $2x = b$ has
(A) No solution
(B) $(-a, \frac{b}{2})$ as its solution
(C) as its solution $(\frac{b}{2}, -a)$
(D) Infinite solutions **(2025)**
16. The pair of equations $x = 2a$ and $y = 3b$ ($a, b \neq 0$) graphically represents straight lines which are:
(A) coincident
(B) parallel
(C) intersecting at $(2a, 3b)$
(D) intersecting at $(3b, 2a)$ **(Comptt., 2024)**
17. The value of ' p ' for which the pair of linear equations $(3p + 5)x + 2y - 7 = 0$ and $10x - 2y + 7 = 0$ has infinitely many solutions is :

(A) -5

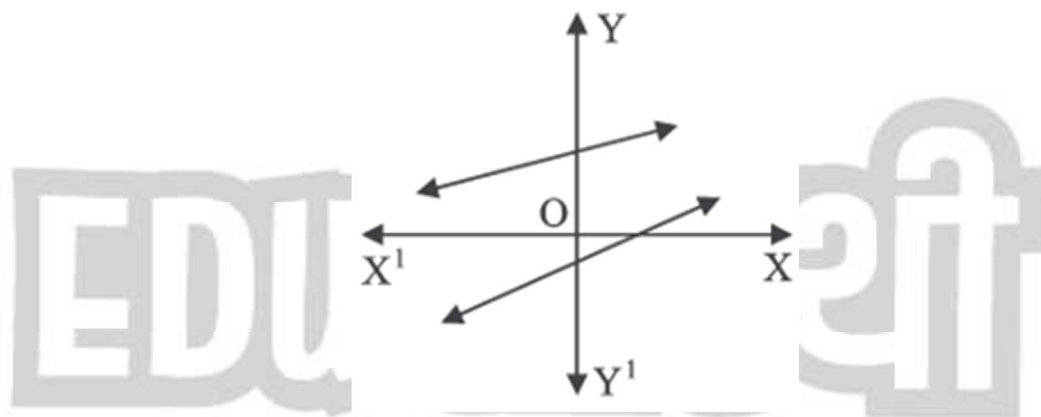
(B) 5

(C) $\frac{5}{3}$

(D) $\frac{3}{5}$

(Comptt., 2024)

18. In the given figure, graphs of two linear equations are shown. The pair of these linear equations is :



(A) consistent with unique solution.

(B) consistent with infinitely many solutions.

(C) inconsistent.

(D) inconsistent but can be made consistent by extending these lines.

(2024)

19. The value of k for which the system of equations $3x - y + 8 = 0$ and $6x - ky + 16 = 0$ has infinitely many solutions, is

(A) -2

(B) 2

(C) $\frac{1}{2}$

(D) $-\frac{1}{2}$

(2024)

20. The pair of linear equations $x + 2y + 5 = 0$ and $-3x = 6y - 1$ has

(A) unique solution

(B) exactly two solutions

(C) infinitely many solutions

(D) no solution

(2024)

21. If a pair of linear equations in two variables is consistent, then the lines represented by the two equations are:

(A) always intersecting

(B) parallel

(C) always coincident

(D) intersecting or coincident

(2024)

22. If $ax + by = a^2 - b^2$ and $bx + ay = 0$, then the value of $x + y$ is:

(A) $a^2 - b^2$

(B) $a + b$

(C) $a - b$

(D) $a^2 + b^2$

(2024)

23. Two lines are given to be parallel. The equation of one of these lines is $5x - 3y = 2$. The equation of the second line can be :

(A) $-15x - 9y = 5$

(B) $15x + 9y = 5$

(C) $9x - 15y = 6$

(D) $-15x + 9y = 5$

(2024)

24. The pair of linear equations $y = 0$ and $y = -7$ have

(A) exactly one solution

(B) two solutions

(C) infinitely many solutions

(D) no solution

(2024)

25. Which out of the following type of straight lines will be represented by the system of equations $3x + 4y = 5$ and $6x + 8y = 7$?

(A) Parallel

(B) Intersecting

(C) Coincident

(D) Perpendicular to each other

(2024)

26. The condition for which the pair of equations $ax + 2y = 7$ and $3x + by = 16$ represent parallel lines is:

(A) $ab = \frac{7}{16}$

(B) $ab = 6$

(C) $ab = 3$

(D) $ab = 2$

(Comptt., 2023)

27. Graphically, the pair of equations $-6x - 2y = 21$ and $2x - 3y + 7 = 0$ represents two lines which are:

(A) intersecting exactly at one point

(B) intersecting exactly at two points

(C) coincident

(D) parallel

(Comptt., 2023)

28. The value of k for which the pair of equations $kx = y + 2$ and $6x = 2y + 3$ has infinitely many solutions,

(A) is $k = 3$

(B) does not exist

(C) is $k = -3$

(D) is $k = 4$

(2023)

29. If the pair of equations $3x - y + 8 = 0$ and $6x - ry + 16 = 0$ represent coincident lines, then the value of ' r ' is :

(A) $-\frac{1}{2}$

(B) $\frac{1}{2}$

(C) -2

(D) 2

(2023)

30. The pair of equations $x = a$ and $y = b$ graphically represents lines which are :

(A) parallel

(B) intersecting at (b, a)

(C) coincident

(D) intersecting at (a, b) **(2023)**

31. The area of the triangle formed by the line $\frac{x}{a} + \frac{y}{b} = 1$ with the coordinate axes is:

(A) ab

(B) $\frac{1}{2} ab$

(C) $\frac{1}{4} ab$

(D) $2ab$

(2023)

32. If $2x + 3y = 15$ and $3x + 2y = 25$, then the value of $x - y$ is:

(A) -10

(B) 8

(C) 10

(D) -8

(2023)

33. The pair of linear equations $2x = 5y + 6$ and $15y = 6x - 18$ represents two lines which are:

(A) intersecting

(B) parallel

(C) coincident

(D) either intersecting or parallel

(2023)

34. The pair of equations $ax + 2y = 9$ and $3x + by = 18$ represent parallel lines, where a, b are integers, if :

(A) $a = b$

(B) $3a = 2b$

(C) $2a = 3b$

(D) $ab = 6$

(2023)

35. The solution of the pair of equations $x + y = a + b$ and $ax - by = a^2 - b^2$ is:

(A) $x = b, y = a$

(B) $x = -a, y = b$

(C) $x = a, y = b$

(D) $x = a, y = -b$

(2023)

36. 3 chairs and 1 table cost ₹ 900; whereas 5 chairs and 3 tables cost ₹ 2,100. If the cost of 1 chair is x and the cost of 1 table is y , then the situation can be represented algebraically as

(A) $3x + y = 900, 3x + 5y = 2100$

(B) $x + 3y = 900, 3x + 5y = 2100$

(C) $3x + y = 900, 5x + 3y = 2100$

(D) $x + 3y = 900, 5x + 3y = 2100$

(2023)

37. The condition for the system of linear equations $ax + by = c; lx + my = n$ to have a unique solution is

(A) $am \neq bl$

(B) $al \neq bm$

(C) $al = bm$

(D) $am = bl$

(2023)

