

Chapter- 3

PAIR OF LINEAR EQUATIONS IN TWO VARIABLES**WORKSHEET**

- If a pair of linear equations is consistent, then the lines will be
 - Parallel
 - Always coincident
 - Intersecting or coincident
 - Always intersecting
- The value of k for which the pair of linear equations $4x + 6y - 1 = 0$ and $2x + ky - 7 = 0$ represents parallel lines is
 - $k = 3$
 - $k = 2$
 - $k = 4$
 - $k = -2$
- The pair of linear equation $3x + 4y + 5 = 0$ and $12x + 16y + 15 = 0$ have
 - Unique solution
 - Many solutions
 - No solution
 - Exactly two solutions
- The lines representing the linear equations $2x - y = 3$ and $4x - y = 5$
 - Intersect at a point
 - Are parallel
 - Are coincident
 - Intersect at exactly two points
- The condition so that the pair of linear equations $kx + 3y + 1 = 0$, $2x + y + 3 = 0$ has exactly one solution.
 - $k = 6$
 - $k \neq 6$
 - $k = 3$
 - $k \neq 3$
- If $x = a$, $y = b$ is the solution of the equations $x - y = 2$ and $x + y = 4$, then the values of a and b are, respectively.
 - 3 and 5
 - 5 and 3
 - 3 and 1
 - 1 and -3
- One equation of a pair of dependent linear equation is $-5x + 7y = 2$, the second equation can be.
 - $10x + 14y + 4 = 0$
 - $-10x - 14y + 4 = 0$
 - $-10x + 14y + 4 = 0$
 - $10x - 14y = -4$
- The lines represented by the equations $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ are coincident if
 - $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$
 - $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$
 - $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$
 - $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$
- Two lines are given parallel. If the equation of one of the lines is $10x - 8y - 7 = 0$, then the equation of the second line can be.
 - $15x - 6y - 21 = 0$
 - $15x - 12y - 7 = 0$
 - $15x + 12y - 21 = 0$
 - $15x + 12y + 7 = 0$

10. The pair of equations $x = 3, y = 4$ graphically represent lines which are

(a) Parallel (b) Intersect at the point $(3, 4)$
(c) Coincident (d) Intersect at the point $(4, 3)$

11. The value of k for which the pair of equations $4x - 5y = 5$ and $kx + 3y = 3$ is inconsistent is

(a) $\frac{12}{5}$ (b) $-\frac{12}{5}$ (c) -3 (d) 1

12. Which of the following is not a solution of the pair of equations $2x - 5y = 7$ and $4x - 10y = 14$?

(a) $x = 6, y = 1$ (b) $x = 1, y = 1$ (c) $x = \frac{7}{2}, y = 0$ (d) $x = 3, y = 1$

13. Solve $148x + 231y = 527, 231x + 148y = 610$

14. Solve $\frac{4}{x} + 3y = 14, \frac{3}{x} - 4y = 23$

15. For what value of k , $2x + 3y = 4$ and $(k + 2)x + 6y = 3k + 2$ will have infinitely many solutions.

16. Is the system of linear equations $2x + 3y - 9 = 0$ and $4x + 6y - 18 = 0$ consistent?

17. Solve $99x + 101y = 499$ and $101x + 99y = 501$

18. For what value of k , will be pair of equations $x + 2y = 5, 3x + ky - 15 = 0$ have

(a) Unique solution (b) No solution

19. The sum of the numerator and denominator of a fraction is 8. If 3 is added to both the numerator and the denominator, the fraction becomes $\frac{3}{4}$. Find the fraction.

20. Solve the x and y : $\frac{x+1}{2} + \frac{y-1}{3} = y, 2\frac{x+1}{2} + \frac{y+1}{4} = x + 1$

