

Pair Of Linear Equations In Two Variables

1. Which of the following equations is not a linear equation?

- a) $5 + 4x = y + 3$ b) $x + 2y = y - x$
c) $3 - x = y^2 + 4$ d) $x + y = 0$

2. Which of the following is a linear equation in one variable?

- a) $2x + 1 = y - 3$ b) $2t - 1 = 2t + 5$
c) $2x - 1 = x^2$ d) $x^2 - x + 1 = 0$

3. Which of the following numbers is a solution for the equation $2(x + 3) = 18$?

- a) 5 b) 6 c) 13 d) 21

4. The value of x which satisfies the equation $2x - (4 - x) = 5 - x$ is

- a) 4.5 b) 3 c) 2.25 d) 0.5

5. The equation $x - 4y = 5$ has

- a) no solution b) unique solution
c) two solutions d) infinitely many solutions

Solve the following systems of equations :

- i) $x - 2y = 0$ ii) $x + y = 2$ iii) $2x - y = 4$
 $3x + 4y = 20$ $2x + 2y = 4$ $4x - 2y = 6$

Represent the following pair of linear equations graphically.

$x + 2y - 4 = 0$ and $2x + 4y - 12 = 0$. Represent this situation graphically.

Check each of the given systems of equations to see if it has a unique solution, infinitely many solutions or no solution. Solve them graphically.

- (i) $2x + 3y = 1$ (ii) $x + 2y = 6$ (iii) $3x + 2y = 6$
 $3x - y = 7$ $2x + 4y = 12$ $6x + 4y = 18$ Type your text

For what value of ' p ' the following pair of equations has a unique solution.

$2x + py = -5$ and $3x + 3y = -6$

Find the value of ' k ' for which the pair of equations $2x - ky + 3 = 0$, $4x + 6y - 5 = 0$ represent parallel lines.

For what value of ' k ', the pair of equations $3x + 4y + 2 = 0$ and $9x + 12y + k = 0$ represents coincident lines.

For what positive values of ' p ', the following pair of linear equations have infinitely solutions?

$$px + 3y - (p - 3) = 0$$
$$12x + py - p = 0$$

Neha went to a 'sale' to purchase some pants and skirts. When her friend asked her how many of each she had bought, she answered, "the number of skirts are two less than the number of pants purchased and the number of skirts is four less than four times the number of pants purchased."

Help her friend to find how many pants and skirts Neha bought.