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Worksheet: Pair of Linear Equations

1. The larger of two supplementary angles exceeds the smaller by 18 degrees. Find them.
2. The graph of y = 3 is a line:
3. Which of the following ordered pairs (x, y) is a solution to the equation 3x - 2y = 10?
4. The solution of the equations x + y = 3 and 2x - y = 0 lies in which quadrant?
5. Which algebraic method involves multiplying equations by constants to make the coefficients of one variable equal, then adding or subtracting the equations?
6. From a bus stand in Bangalore , if we buy 2 tickets to Malleswaram and 3 tickets to Yeshwanthpur, the total cost is Rs 46; but if we buy 3 tickets to Malleswaram and 5 tickets to Yeshwanthpur the total cost is Rs 74. Find the fares from the bus stand to Malleswaram, and to Yeshwanthpur.
7. For what value of k do the equations kx - 2y = 3 and 3x + y = 5 have a unique solution?
8. The pair of equations x + 2y = 3 and 3x + 6y = 9 has:
9. The graphical method of solving a pair of linear equations involves:
10. A and B each has some money. If A gives Rs. 30 to B then B will have twice the money left with A. But if B gives Rs. 10 to A then A will have thrice as much as is left with B. How much money does each have?
11. For a pair of linear equations a1x + b1y + c1 = 0 and a2x + b2y + c2 = 0, to have a unique solution, the condition is:
12. The solution of the equations x + y = 14 and x – y =4 is
13. If the point (2, 1) is the solution of the equations 2x + 3y = k and 3x - 2y = 4, find the value of k.
14. A library has a fixed charge for the first three days and an additional charge for each day thereafter. Saritha paid Rs 27 for a book kept for seven days, while Susy paid Rs 21 for the book she kept for five days. Find the fixed charge.
15. If a1/a2 != b1/b2, what kind of lines are formed by the pair of equations?
16. If x = a and y = b is the solution of the equations x - y = 2 and x + y = 4, then the values of a and b are:
17. If two lines representing a pair of linear equations are parallel, then the system of equations is:
18. For what value of k will the equations 3x + 4y = 5 and 6x + ky = 8 represent parallel lines?
19. For what value of k does the pair of equations 3x + y = 1 and (2k-1)x + (k-1)y = 2 have no solution?

20. The present age of a father is twice the sum of the ages of his two children. After 20 years, his age will be equal to the sum of the ages of his children. Find the father's present age.