

1. Linear Equations in Two Variables

◆ **Solve the following pairs of linear equations:**

1. $2x+3y=12$, $x-y=1$
 2. $3x-y=5$, $4x+y=6$
 3. $x+2y=7$, $3x-y=53$
 4. $x-2y=4$, $5x+3y=1$
 5. $2x+5y=20$, $3x-2y=6$
 6. $x+y=10$, $x-y=4$
 7. $4x-y=8$, $x+2y=5$
 8. $x=y+3$, $2x+3y=12$
 9. $5x-4y=-2$, $3x+y=11$
 10. $x+y=6$, $2x-3y=12$
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◆ **Word Problems (convert to linear equations and solve):**

11. The sum of two numbers is 26 and their difference is 4. Find the numbers.
12. A father's age is three times the age of his son. The sum of their ages is 48 years. Find their ages.
13. The sum of the digits of a two-digit number is 7. If the digits are reversed, the new number is 9 more than the original number. Find the number.
14. The cost of 5 pens and 3 pencils is ₹30. The cost of 2 pens and 4 pencils is ₹20. Find the cost of one pen and one pencil.
15. Two numbers differ by 3. The larger number is 4 times the smaller. Find the numbers.
16. A boat takes 2 hours to travel 30 km downstream and 3 hours to return upstream. Find the speed of the boat and the speed of the current.
17. The perimeter of a rectangle is 50 cm and its length is 5 cm more than its breadth. Find the dimensions of the rectangle.
18. Ramesh has ₹20 in 1-rupee and 2-rupee coins. If the total number of coins is 15, find how many coins of each type he has.
19. A linear equation passes through points (1, 2) and (3, 6). Find the equation of the line.

20. A number consists of two digits. The digit in the tens place is double the digit in the units place. If the digits are reversed, the new number is 18 less than the original number. Find the number.