# Solving Linear Equations

*Solve the following equations to find the value of the variable.*

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1. Solve: $x + 5 = 12$

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2. Solve: $4a = 20$

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3. Solve: $2y - 3 = 10$

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4. Solve: $\frac{p}{3} = 6$

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5. Solve: $2x + 1 = 11$

6. Solve: $4 - 5y = 21$

7. Solve: $\frac{a}{2} + 3 = 7$

8. Solve: $\frac{c - 5}{3} = 4$

9. Solve: $\frac{2x - 3}{5} = 3$

10. Solve: $5x + 3 = 3x + 9$

11. Solve: $8y - 2 = 5y + 10$

12. Solve: $4a + 15 = 9a - 5$

13. Solve: $2(x + 3) = 14$

14. Solve: $5(p-2)=2p+8$

15. Solve: $4(2y-1)=3(y+4)$

16. Solve: $7-2(x-1)=5$

17. Solve: $\frac{x}{3}=\frac{x+1}{4}$

18. Solve: $\frac{2x-1}{5} = \frac{x+3}{4}$

19. Solve: $x^2 + 5x = x(x+2) + 12$

20. The perimeter of the rectangle below is 46 cm. Find the value of $x$.
Sides: $3x + 2$ and $x + 5$

21. Solve: $5p - (p+2) = 2(p+3)$

22. Solve: $\frac{x}{2} + \frac{x}{3} = 10$

23. I think of a number, multiply it by 4, and subtract 7. The result is 25. Form an equation and solve it to find the number.

24. The angles in a triangle are $x$, $2x$, and $x + 20$. Find the value of $x$.