

# Algebra Review: Solving Equations

## Steps for Solving Algebraic Equations

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| <ol style="list-style-type: none"> <li>1. Simplify each side by             <ul style="list-style-type: none"> <li>—distributing</li> <li>—combining like terms</li> </ul> </li> <li>2. Move all variables to one side</li> <li>3. Eliminate the constant using +/-</li> <li>4. Eliminate the coefficient using x/÷</li> </ol> | $9(x + 1) + 2 = 4(x + 8) - 2x$ $9x + 9 + 2 = 4x + 32 - 2x$ $9x + 11 = 2x + 32$ $7x + 11 = 32$ $7x = 21$ $x = 3$ |
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Solve the following algebraic equations. Follow the answers through the maze.

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| 1. $3(x + 5) = 2x + 20$       | 2. $4(y - 2) = 3(y + 5)$                |
| 3. $9w + 5 = 4(3w - 1)$       | 4. $3g - 5 + 9g = 4 + 15g + 3$          |
| 5. $4(p - 5) = 5(p - 7)$      | 6. $3x + 5 = 4 - 2x + 6$                |
| 7. $4(m - 3) = 6(m + 1)$      | 8. $4(n + 8) - 3n = 42$                 |
| 9. $2(t - 7) - 1 = -5(6 - t)$ | 10. $7(2y - 1) + 3y = -3(y + 2) + 9$    |
| 11. $x = 2(10 - x) + 1$       | 12. $2(m + 3) + 2m = 5m$                |
| 13. $4c - 3(c - 8) = 47$      | 14. $3(x - 5) - 4(2x - 4) = -2(x - 11)$ |

START:

