

How to Simplify Algebraic Expressions

To simplify an algebraic expression, you may need to use the distributive property, combine like terms, or both. **Like terms** are terms that have the same variables raised to the same powers, like $7x$ and $2x$.

Let's try it! Simplify $2(8x - 5) - 9x$.

Use the distributive property. Distribute the 2 to each term inside the parentheses.

Simplify. Then combine like terms, paying attention to the operation in front of $9x$.

$$2(8x - 5) - 9x$$

$$2(8x) - 2(5) - 9x$$

$$16x - 10 - 9x$$

$$7x - 10$$



Simplify each expression.

1. $4(r + 8)$

$$4r + 32$$

2. $10p - 5p + 4$

$$5p + 4$$

3. $9 + 2b + 8b$

$$10b + 9$$

4. $7t - 6 - 5t$

$$2t - 6$$

5. $3(9a - 10)$

$$27a - 30$$

6. $7(3m + 2) + 1$

$$21m + 15$$

7. $2h + 4(2h + 7)$

$$10h + 28$$

8. $10c + 8 + c - 3$

$$11c + 5$$

9. $15 + 12y - 4 + 6y$

$$18y + 11$$

10. $9d + 6(d - 2)$

$$15d - 12$$