REVIEW: Simplifying Algebraic Expressions

Name _____

Key Concept and Vocabulary

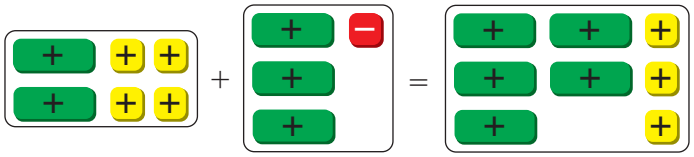
Combine variable terms.

$2x + 4 + 3x - 1 = 5x + 3$

Combine numerical terms.

Visual Model

Algebra Tiles



Skill Examples

1. $2x + 5x = 7x$
2. $1 + n + 4 = n + 5$
3. $(2x + 3) - (x + 2) = x + 1$
4. $2(y - 1) + 3(y + 2) = 5y + 4$

Application Example

5. The original cost of a shirt is x dollars. The shirt is on sale for 30% off. Write a simplified expression for the sale price.

$x - 0.3x = 0.7x$

∴ The sale price is $0.7x$.

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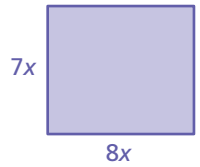
Check your answers at BigIdeasMath.com.

Simplify the expression. ***(Remove parentheses and combine like terms.)***

6. $4x + 6x =$ $10x$
7. $3n + 5 - 2n =$ $n + 5$
8. $9x + 3 - 6x - 2 =$ $3x + 1$
9. $3(x + 2) =$ $3x + 6$
10. $7m - 2m + 5m =$ $10m$
11. $2 - (x + 1) =$ $1 - x$
12. $3x + 6 - x =$ $2x + 6$
13. $5 - (1 - n) =$ $n + 4$
14. $(x + 6) - (x + 6) =$ 0
15. $(4x - 2) + 3(x + 1) =$ $7x + 1$
16. $(5x + 4) - 2(x + 1) =$ $3x + 2$
17. $5(x + 2) - 2(x + 2) =$ $3x + 6$

Write a simplified expression for the perimeter of the rectangle or triangle.

18.

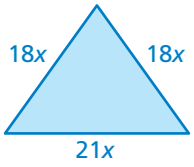


Perimeter = $30x$

19.

Perimeter = $28n$

20.



Perimeter = $57x$

21. The original cost of a cell phone is x dollars. The phone is on sale for 35% off. Write a simplified expression for the sale cost. $0.65x$

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