

Reteaching 1-7

The Distributive Property

OBJECTIVE: Using the Distributive Property

MATERIALS: None

You can compare the Distributive Property to distributing paper to the class. Just as you distribute a piece of paper to each person in the class, you distribute the number immediately outside the parentheses to each term inside the parentheses by multiplying.

Example

Simplify $3(2x + 3)$ by using the Distributive Property.

- $3(2x + 3)$ ← Draw arrows to show that 3 is distributed to the $2x$ and to the 3.
 $3(2x) + 3(3)$ ← Use the Distributive Property.
 $6x + 9$ ← Simplify.

Example

Simplify $-1(4x + 7)$ by using the Distributive Property.

- $-1(4x + 7)$ ← Rewrite using the Multiplication Property of -1 .
 $-1(4x + 7)$ ← Draw arrows to show that -1 is distributed to the $4x$ and to the 7.
 $-1(4x) + (-1)(7)$ ← Use the Distributive Property.
 $-4x - 7$ ← Simplify.

Exercises

Draw arrows to show the Distributive Property. Then simplify each expression.

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|------------------|---------------------------|--------------------|
| 1. $2(5x + 4)$ | 2. $\frac{1}{4}(12x - 8)$ | 3. $4(7x - 3)$ |
| 4. $5(4 + 2x)$ | 5. $6(5 - 3x)$ | 6. $0.1(30x - 50)$ |
| 7. $(2x - 4)3$ | 8. $(3x + 4)7$ | 9. $8(x + y)$ |
| 10. $-(4x + 3)$ | 11. $-(-2x + 1)$ | 12. $-(-6x - 3)$ |
| 13. $-(14x - 3)$ | 14. $-(-7x - 1)$ | 15. $-(3x + 4)$ |