## Lesson Objectives

Use the Commutative, Associative, and Distributive Properties to simplify expressions; Combine like terms

## Vocabulary

term (p. 47)
like terms (p. 47)
coefficient (p. 48)

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Use the Commutative, Associative, and Distributive Properties to simplify expressions; Combine like terms

## Vocabulary

term (p. 47) The parts of an expression to be added or subtracted.
like terms (p. 47) Terms that contain the same variables raised to the same powers.
coefficient (p. 48) A number multiplied by a variable.

## Key Concepts

Properties of Addition and Multiplication (p. 46):

| WORDS | NUMBERS | ALGEBRA |
| :---: | :---: | :---: |
| Commutative Property |  |  |
| Associative Property |  |  |
|  |  |  |

Distributive Property (p. 47):

| WORDS | NUMBERS | ALGEBRA |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |

Think and Discuss (p. 49)
Get Organized In each box, give an example to illustrate the given property.


## Key Concepts

## Properties of Addition and Multiplication (p. 46):

| WORDS | NUMBERS | ALGEBRA |
| :--- | :---: | :---: |
| Commutative Property <br> You can add numbers in <br> any order and multiply <br> numbers in any order. | $2+7=7+2$ <br> $3 \cdot 9=9 \cdot 3$ | $a+b=b+a$ <br> $a b=b a$ |
| Associative Property <br> When you are only <br> adding or multiplying, <br> you can group any of <br> the numbers together. | $6+8+2$ $7 \cdot 4 \cdot 5$ $a+b+c \quad a b c$ <br> $=(6+8)+2$ $=(7 \cdot 4) \cdot 5$ $=(a+b)+c=(a b) c$ <br> $=(8+2)$ $=7 \cdot(4 \cdot 5)$ $=a+(b+c)=a(b c)$ |  |

## Distributive Property (p. 47):

| WORDS | NUMBERS | ALGEBRA |
| :--- | :---: | :---: |
| You can multiply a |  |  |
| number by a sum or |  |  |
| multiply by each number |  |  |
| in the sum and then add. | $3(4+8)=3(4)+3(8)$ | $a(b+c)=a b+a c$ |
| The result is the same. |  |  |

Think and Discuss (p. 49)
Get Organized In each box, give an example to illustrate the given property.


