

# REVIEW: Simplifying Expressions

Name \_\_\_\_\_

## Key Concept and Vocabulary

Combine variable terms.

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

Combine numerical terms.

Simplifying Expressions

## Visual Model

Algebra Tiles

## Skill Examples

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

## Application Example

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



$$x - 0.3x = 0.7x$$

∴ The sale cost is  $0.7x$ .



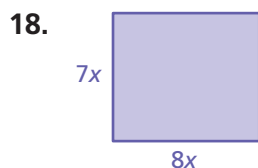
## PRACTICE MAKES PURR-FECT™

Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

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

- $4x + 6x = \underline{10x}$
- $9x + 3 - 6x - 2 = \underline{3x + 1}$
- $7m - 2m + 5m = \underline{10m}$
- $(3x + 6) - x = \underline{2x + 6}$
- $(x + 6) - (x + 6) = \underline{0}$
- $(5x + 4) - 2(x + 1) = \underline{3x + 2}$
- $3n + 5 - 2n = \underline{n + 5}$
- $3(x + 2) = \underline{3x + 6}$
- $2 - (x + 1) = \underline{1 - x}$
- $5 - (1 - n) = \underline{n + 4}$
- $(4x - 2) + 3(x + 1) = \underline{7x + 1}$
- $5(x + 2) - 2(x + 2) = \underline{3x + 6}$

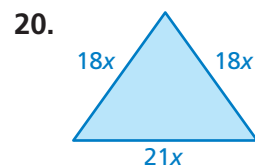
Write a simplified expression for the perimeter of the rectangle or triangle.



Perimeter =  $\underline{30x}$



Perimeter =  $\underline{28n}$



Perimeter =  $\underline{57x}$

- 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.  $\underline{0.65x}$

