

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## 1.5 Rewriting Equations and Formulas

Essential Question: \_\_\_\_\_

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*Exploration: There is no exploration for this section.*

An equation that has \_\_\_\_\_ or more \_\_\_\_\_ is called a \_\_\_\_\_ equation.

To rewrite a literal equation, \_\_\_\_\_ for one variable in terms of the other \_\_\_\_\_.

### **EXAMPLE 1** Rewriting a Literal Equation

Solve the literal equation  $3y + 4x = 9$  for  $y$ .

### **EXAMPLE 2** Rewriting a Literal Equation

Solve the literal equation  $y = 3x + 5xz$  for  $x$ .

Solve the literal equation for  $y$ .

1.  $3y - x = 9$

2.  $2x - 2y = 5$

3.  $20 = 8x + 4y$

Solve the literal equation for  $x$ .

4.  $y = 5x - 4x$

5.  $2x + kx = m$

6.  $3 + 5x - kx = y$

### EXAMPLE 3

### Rewriting a Formula for Surface Area

The formula for the surface area  $S$  of a rectangular prism is  $S = 2\ell w + 2\ell h + 2wh$ . Solve the formula for the length  $\ell$ .