

# Reteaching 1-1

## Using Variables

**OBJECTIVE:** To model relationships with variables and equations

**MATERIALS:** None

You often hear word phrases such as *half as much* or *three times as deep*. These phrases describe mathematical relationships. You can translate word phrases like these into mathematical relationships called algebraic expressions.

### Example

Translate the following word expressions into algebraic expressions.

the sum of  $x$  and 15  
 $x + 15$

Remember that “sum” means to add.

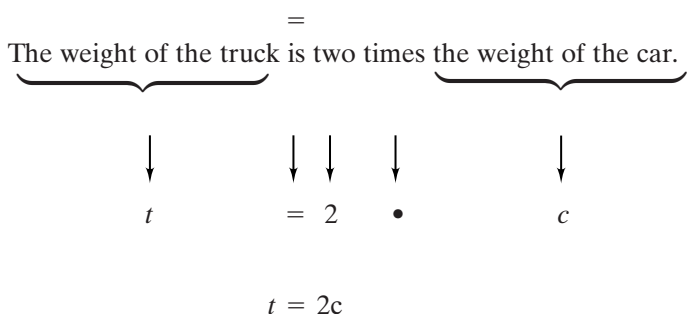
seven times  $x$   
 $7x$

Remember that “times” mean to multiply.

### Example

Translate the following word sentence into an algebraic equation.

The weight of the truck is two times the weight of the car.



← Write an equal sign under the word *is*. Whatever is written to the left of *is* belongs on the left side of the =. Whatever is written to the right of *is* belongs on the right side of the =.

← Represent the unknown amounts with variables.

← The translation is complete. Check to make sure you have translated all parts of the equation.

### Exercises

Translate the following word expressions and sentences into algebraic expressions or equations.

1. a number increased by 5
2. 8 subtracted from a number
3. a number divided by 9
4. 3 less than five times a number
5. A number multiplied by 12 is 84.
6. 7 less than  $n$  is 22.
7. 8 times a number  $x$  is 72.
8. A number divided by 3 is 18.