

# Lesson 114

## Objective

Students will determine the equation that represents a problem and the equation that solves it.

## Preparation

No special preparation is required.

## Lesson Plan

For each problem, the students should write one equation that reflects the first portion of the statement and another equation with which they can compute a value for the unknown number. The students should be able to recognize the operation that is used by reading the statement.

They should then use the inverse of the given operation in the equation they use to solve the problem. Point out that division is the inverse operation of multiplication and subtraction is the inverse operation of addition.

Go through the example with the students. Help them understand that  $3 \times n$  or  $3n$  is the same as  $n + n + n$ . They are *equivalent* because the answer will be the same (they name the same number) no matter which number  $n$  stands for. After solving the equation with the original value, have students doublecheck that  $3 \times n = n + n + n$  by replacing  $n$  with 5. Explain that  $3 \times 5 = 5 + 5 + 5$  (and these equations will be the same no matter which number is put in place of  $n$ ) so  $3 \times 5$  and  $5 + 5 + 5$  are equivalent expressions.

Next do #1 – #4 together.

## Stretch 114

Using a 4 by 4 grid and the following letters, fill in the grid so that 8 four-letter words are shown. One will be a woman's name.

A, A, B, I, K, N, N, O, O, P, R, R, S, T, T, U


Answer:

P	A	R	K
R	U	I	N
O	N	T	O
S	T	A	B