Algebra 1 2.1

Translate sentences into equations

Translate equations into sentences

variable

formula

sum +

product ×

difference −

quotient ÷

equals =

( )

( )

quantity

$2(x+3)$

activity: I have who has

activ: I have/ who has

A rule for the relationship between certain quantities is called a **formula**. These equations use variables to represent numbers and form general rules.

Example 3 Write a Formula

GEOMETRY **Translate the sentence into a formula.**

The area of a triangle equals the product of $\frac{1}{2}$ the length of the base and the height.

$A = \frac{1}{2} \cdot B \cdot h$

$A = \pi r^2$ $C = \pi d$

$A = \frac{b \cdot h}{2} = \frac{1}{2}bh$ $a^2 + b^2 = c^2$

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3. GEOMETRY Translate the sentence into a formula.
In a right triangle, the square of the measure of the hypotenuse c is equal to the sum of the squares of the measures of the legs, a and b.

$$(c)^2 = a^2 + b^2$$

Example 4 Translate Equations into Sentences

PT

Translate each equation into a sentence.

a. $6z - 15 = 45$

equals

is

the same as

b. $y^2 + 3x = w$

is w

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4A. $15 = 25u^2 + 2$

4B. $\frac{3}{2}r - t^3 = 132$

When given a set of information, you can create a problem that relates a story.

Example 5 Write a Problem

Write a problem based on the given information.

t = the time that Maxine drove in each turn; $t + 4$ = the time that Tia drove in each turn; $2t + (t + 4) = 28$