Solving for x: Lesson 02

Intro to Variables: Notes

Name: _____

MATH ALL

Definition of a *variable* in math:

A letter or symbol

Examples: x , a , r , or ?

Variables are used for:

1. Something that can change. ($2c)
2. Something that is unknown. $(4x - 2 = 10)$

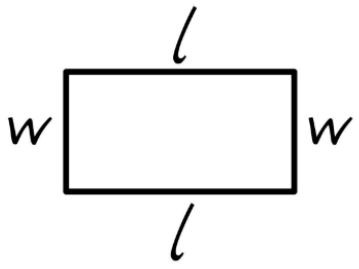
Formula for the amount of money you have in your pockets:

$T = \$5 \times b$; b = # of \$5 bills in your pocket

$T = \$5 \times b$; $b = 20$

$T = \$5 \times 20 = \$100$

Formula for the perimeter of my rectangle:



P = l + w + l + w

Perimeter if $l = 40$ ft and $w = 25$ ft

P = 40 + 25 + 40 + 25 = 130 feet

Definitions:

Expression: A combination of letters , numbers , and math operations

with no equal sign

Equation: Has an equal sign

Coefficients: The numbers in front of letters

coefficient of $-4ab$: -4 coefficient of b : 1

Terms: Items separated by + or − signs

terms of $f^2 + 56g - 3f$: f^2 , $56g$, $-3f$

Evaluate expressions:

$6r + 7 \;;\; r = 3$

$6 \cdot 3 + 7$

$18 + 7 = 25$

$(wx - 4)y \;;\; w = 3 \;,\; x = 4 \;,\; y = -2$

$(3 \cdot 4 - 4)(-2)$

$(12 - 4)(-2)$

$(8)(-2) = -16$

Tricky ones:

$x^2 \;;\; x = -5$

$(-5)^2 = 25$

$-x^2 \;;\; x = 5$

$-(5)^2 = -25$

$d^3 \;;\; d = -3$

$(-3)^3 =$

$-3 \cdot -3 \cdot -3 = -27$

$-d^3 \;;\; d = -3$

$-(-3)^3 = -(-27) = 27$