Algebra 1 - Section 1.7

Rewriting Equations and Formulas

Warmup:

Solve $3x - 5 = 13$

$+5 \quad +5$

$\frac{3x}{3} = \frac{18}{3}$

$x = 6$

Solve for y.

$-4x + y = 11$

$+4x \quad +4x$

$y = 11 + 4x$

Vocab (That you dont need to memorize):

Literal Equation: an equation with more than 1 variable

When solving equations, you follow the same rules regardless of which variable you're solving for.

Reminder: You can't combine different variables together through addition/subtraction

Solve for y. $2x - 2y = 5$

$-2x \qquad -2x$

$\frac{-2y}{-2} = \frac{5 - 2x}{-2}$

$y = \frac{5 - 2x}{-2}$

When you multiply/divide both sides, you have to multiply/ divide the <u>entire</u> side.

Like Terms Example:

If you have like terms, you should combine those first.

Solve for p. $2x - 7p + 15 + 3x = -3p + 8 - x$

$5x - 7p + 15 = -3p + 8 - x$

$+3p \quad +3p$

move p's to one side

$5x - 4p + 15 = 8 - x$

$-5x \quad -15 \quad -15 - 5x$

move everything else to the other side

$\frac{-4p}{-4} = \frac{-7 - 6x}{-4}$

$p = \frac{-7 - 6x}{-4}$

1. Combine like terms on each side.
2. Decide which side you want to get your p. Move everything else to the other side.
3. Divide by whatever is multiplying with p.

Solve for C. $F = \frac{9}{5}C + 32$

$-32 \qquad -32$

$\frac{5}{9} \cdot (F - 32) = \frac{9}{5}C \cdot \frac{5}{9}$

$\frac{5}{9}(F - 32) = C$

Remember. Dividing by a fraction is the same as multiplying by the reciprocal.

Even complicated looking problems are easy if you just stay calm.

Solve for m. $6x^2 + 4\pi r^2 = -4y^3 + 7m$

$+4y^3$ $+4y^3$

$$\frac{6x^2 + 4\pi r^2 + 4y^3}{7} = \frac{7m}{7}$$

$m =$

Homework:

Pages 50-51

Numbers: 5-10, 27-29