

Name: _____

Date: _____ Period: _____

Math 3: Review Standard A-REI.A

You solved several linear equations. Remember, the *Addition*, *Subtraction*, *Multiplication*, and *Division Properties of Equality* allow you to balance and solve equations by isolating the variable. The *Distributive Property* allows you to rewrite expressions to remove parentheses.

$2(x - 3) + 2x = 4$	Given equation	$\frac{1}{2}(28x - 14) = \frac{3}{4}(8x + 12)$	Given equation
$2x - 6 + 2x = 4$	Distributive Property	$14x - 7 = 6x + 9$	Distributive Property
$4x - 6 = 4$	Combine Like Terms	$8x - 7 = 9$	Subtraction Property of Equality
$4x = 10$	Addition Property of Equality	$8x = 16$	Addition Property of Equality
$x = 2.5$	Division Property of Equality	$x = 2$	Division Property of Equality

Investigate the examples above before trying to solve and justify the steps for the solution to each equation below.

1) $15x - \frac{1}{2}(6x + 2) = 11$

2) $8 - 6x = -12 - 16x$

3) $3(x - 4) + 2(8 - x) + x = 0$

4) $5(2x - 10) = 10(\frac{1}{2} + x) + 9x$

Now try solving some literal equations while justifying each step of your solution. Investigate the example below before trying to solve and justify the steps for the solution to each equation.

Solve for b :

$A = \frac{1}{2} b h$

$2A = b h$

$2A/h = b$

Given equation

Multiplication Property of Equality

Division Property of Equality

5) Solve for h :

$V = l w h$

6) Solve for w :

$P = 2l + 2w$

7) Solve for F :

$C = 5/9 (F - 32)$