Name: Date:
Period:

Lesson: Solving Equations – Using the Distributive Property/Involving Fractions

Using the Distributive Property

The Distributive Property can be useful in solving equations.

EXAMPLE 1 **Solve each equation.**

A $3(x-5)+1=2+x$

B $5-7k=-4(k+1)-3$

YOUR TURN **Solve each equation.**

1. $y-5=3-9(y+2)$

2. $2(x-7)-10=12-4x$

Guided Practice

1. $4(x+8)-4=34-2x$

3. $-3(x+4)+15=6-4x$

4. $10+4x=5(x-6)+33$

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Guided Practice continued…

5. $x - 9 = 8(2x + 3) - 18$

6. $-6(x - 1) - 7 = -7x + 2$

Solving an Equation That Involves Fractions

To solve an equation with the variable on both sides that involves fractions, start by eliminating the fractions from the equation.

Using the Distributive Property on Both Sides

Some equations require the use of the Distributive Property on both sides.

When doing these get rid of the fractions before you solve!

$\frac{1}{7}k - 6 = \frac{3}{7}k + 4$	$-4(-5 - b) = \frac{1}{3}(b + 16)$
$6 + \frac{4}{5}b = \frac{9}{10}b$	$\frac{2}{3}(9 + x) = -5(4 - x)$
$\frac{5}{6}y + 1 = -\frac{1}{2}y + \frac{1}{4}$	$\frac{1}{2}(16 - x) = -12(x + 7)$