

### 3.6 Solving First-Degree Equations Involving Multiple Steps – Part 2

#### Reviewing the Distributive Property

State whether the following statements are true or false. If false, correct the statement.

<b>LP#1</b> $3(x + 4) = 3x + 12$	$6(y + 7) = 6y + 7$	$4(n + 2) = 4n + 8$
<b>LP#2</b> $-3(x + 5) = -3x + 15$	$-6(w - 9) = -6w + 54$	$-5(m + 9) = -5m - 9$
<b>LP#3</b> $(y - 3)(-4) = -4y + 12$	$(a - 7)(6) = y - 42$	$(a + b)(5) = 5a + 5b$
<b>LP#4</b> $-5(y+1) = -5 - 5$	$3(x + 4) = 3x + 12$	$-2(y + 5) = -2y - 10$

Complete the rule below.

Let  $a$ ,  $b$ , and  $c$  represent real numbers,

$$a(b + c) =$$

**Class Notes** – Solve each first-degree equation and check. If you do not solve an equation, explain why.

<b>LP#5</b> $2(x + 3) = -16$	$28 = 4(m + 5)$	$120 = 15(w - 2)$
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<b>LP#6</b> $8(y - 1) = 64$	$-4(p - 9) = -48$	$14(4 - d) = -168$
<b>LP#7</b> $6 = -3(x - 1)$	$2(p - 20) = 8$	$4 = 4(b - 2)$

**Review** – Solve each first-degree equation and check. If you do not solve an equation, explain.

<b>R#1</b> $5(6x - 7) = -35$	$4(1 - 5x) = -56$	$-4(1 - 6x) = 164$
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<b>R#2</b> $5(x - 1) = 20$	$6(10 + x) = 132$	$-6(7x + 10) = -144$
<b>R#3</b> $-2(6x + 9) = -150$	$3(3 + 6x) = 225$	$-6(1 + 4x) = 90$

### Homework –

Solve each first-degree equation and check. If you do not solve an equation, explain.

1)  $-5(-5 - x) = -45$     2)  $4(10 + 2x) = 64$     3)  $-7(4 - x) = 7$     4)  $7(4x - 4) = 140$

5)  $3(2x + 8) = 60$     6)  $-6(x - 6) = 36$     7)  $7(-3x + 10) = 196$     8)  $-3(x - 2) = 33$

9)  $4(x + 4) = -16$     10)  $4(3 + 2x) = 76$     11)  $6(4x - 2) = 156$     12)  $6(x + 3) = 30$

13)  $7(1 + x) = 21$     14)  $3(2x - 10) = -90$     15)  $7(4x + 7) = 357$     16)  $7(-6x - 6) = 84$

### Synthesis

TBA