

**Foundations for College Algebra – MTWF**  
**University of North Georgia**  
**Fall 2015**  
**Quiz #5**

Name: Key Date: September 9, 2015

Solve the following equations by **using and stating** the “correct” *Algebraic Tool* for each new line you write as done in class. Hint: pay close attention to what tool you select!

1.  $\emptyset(\forall + \odot) - ! = \infty$ , for  $\forall$

$$\emptyset \forall + \emptyset \odot - ! = \infty \quad \text{Dist } \& \text{ A. Sol}$$

$$- \emptyset \odot + !$$

$$\emptyset \forall = \infty - \emptyset \odot + ! \quad \text{A. I. } \& \text{ A. Sol}$$

$$\forall = \frac{\infty - \emptyset \odot + !}{\emptyset} \quad \text{M. I.}$$

2.  $\infty(\Delta + \odot) = \square(\infty - \odot)$ , for  $\infty$

$$\infty \Delta + \infty \odot = \square \infty - \square \odot \quad \text{Dist}$$

$$- \square \infty$$

$$\infty \Delta + \infty \odot - \square \infty = - \square \odot \quad \text{A. I. } \& \text{ A. Sol}$$

$$\infty (\Delta + \odot - \square) = - \square \odot \quad \text{Dist } \& \text{ A. Sol}$$

$$\infty = \frac{- \square \odot}{(\Delta + \odot - \square)} \quad \text{M. I.}$$

$$3. 3(x-4) = 2(x+3) + 2$$

$$3x - 3(4) = 2x + 2(3) + 2 \quad \text{Dist}$$

$$3x - 12 = 2x + (6 + 2) \quad \text{Assoc. of A. Sol}$$

$$3x - 12 = 2x + 8 \quad \text{A. Sol}$$
$$+12 \quad -2x$$

$$3x - 2x = 8 + 12 \quad \text{A. A of A. Sol}$$

$$1 \cdot x = 20$$

m. sol  $\nearrow$

$x = 20$

Check

$$3(20-4) = 2(20+3) + 2$$

$$3(16) = 2(23) + 2$$

$$48 = 46 + 2$$

$$48 = 48 \quad \checkmark$$