

Algebra 0507

Chapter 3

Intro to WS #11

Name _____

Solve. Show all work. Hint: Get variables on one side of = sign and #'s on other.

1. $2(x+5) = 3x+4-x$ $\begin{array}{r} 2x+10 = 2x+4 \\ -2x \quad -2x \\ \hline 10 = 4 \end{array}$ <i>(Note: This equation has no solution, indicated by a red circle and slash.)</i>	2. $7(x-5) = 2(x+5)$ $\begin{array}{r} 7x-35 = 2x+10 \\ -2x \quad -2x \\ \hline 5x-35 = 10 \\ +35 \quad +35 \\ \hline 5x = 45 \\ \frac{5x}{5} = \frac{45}{5} \quad \boxed{x=9} \end{array}$
3. $6(2x+3) = 2(9+6x)$ $\begin{array}{r} 12x+18 = 18+12x \\ -12x \quad -12x \\ \hline 18 = 18 \end{array}$ <i>(Note: This equation is an identity, indicated by a red circle.)</i>	4. $3(30+x) = 4(x+19)$ $\begin{array}{r} 90+3x = 4x+76 \\ -3x \quad -3x \\ \hline 90 = x+76 \\ -76 \quad -76 \\ \hline 14 = x \end{array}$
5. $3(x+4) = 5x-2x+4$ $\begin{array}{r} 3x+12 = 3x+4 \\ -3x \quad -3x \\ \hline 12 = 4 \end{array}$ <i>(Note: This equation has no solution, indicated by a red circle and slash.)</i>	6. $3(x+4) = 5x-2(x-6)$ $\begin{array}{r} 3x+12 = 5x-2x+12 \\ -3x \quad -3x \\ \hline 12 = 12 \end{array}$ <i>(Note: This equation is an identity, indicated by a red circle.)</i>