TH-A1 Algebra 1 Week 10 11/16

$18 = -5x - 4$

$+4 \qquad +4$

$\frac{22}{-5} = \frac{-5x}{-5}$

$\boxed{x = -\frac{22}{5}}$

$-4(2x-9) = -52$

$-4(2x) + -4(-9) = -52$

$-8x + 36 = -52$

$-36 \quad -36$

$\frac{-8x}{-8} = \frac{-88}{-8}$

$\boxed{x = 11}$

1.) $8(x-3) = 96$

$8x - 24 = 96$

$+24 \quad +24$

$\frac{8x}{8} = \frac{120}{8}$

$\boxed{x = 15}$

$\frac{8(x-3)}{8} = \frac{96}{8}$

$x - 3 = 12$

$+3 \quad +3$

$\boxed{x = 15}$

2.) $2(5x+4) + 2(-7x+8) = 44$

$10x + 8 - 14x + 16 = 44$

$10x + (-14x) \qquad 8 + 16$

$-4x + 24 = 44$

$-24 \quad -24$

$\frac{-4x}{-4} = \frac{20}{-4}$

$\boxed{x = -5}$

$\frac{\cancel{2}(5x+4)}{\cancel{2}} + \frac{\cancel{2}(-7x+8)}{\cancel{2}} = \frac{44}{2}$

$5x + 4 + (-7x) + 8 = 22$

$\downarrow -3^2(8)$

$\cancel{(-3)^2(8)}$

$-(3)^2(8)$

$-(9)(8) = -72$

$$-5(5n-2)+4=-40-7n$$

$$-25n+10+4=-40-7n$$

n #

$$-25n+14=-40-7n$$

$$+7n \qquad\qquad +7n$$

$$-18n+14=-40$$

$$-14 \qquad -14$$

$$\frac{-18n}{-18}=\frac{-54}{-18}$$

$$\boxed{n=3}$$

1. Distribute "slap"

2. Simplify "combine like terms" Be racist :(

3. isolate variables separate, equal We do the opposite to move them

4. Solve.

$$3x-31=7(1-5x)$$

x

$$3x-31=7-35x$$

$$-3x \qquad\qquad -3x$$

$$-31=7-38x$$

$$-7 \qquad -7$$

$$\frac{-38}{-38}=\frac{-38x}{-38}$$

$$\boxed{1=x}$$

1.) $-21 - 6n = -(6 + 4n) + n$

-1

$-21 - 6n = -6 - 4n + n$

n

$-21 - 6n = -6 - 3n$ #

$+3n \qquad +3n$

$-21 - 3n = -6$

$+21 \qquad +21$

$\frac{-3n}{-3} = \frac{15}{-3}$

$\boxed{n = -5}$

2.) $8n + 29 = -7(2n - 5) - 8(-5 + 3n)$

$8n + 29 = -14n + 35 + 40 - 24n$

n

$8n + 29 = -38n + 75$

$+38n \qquad +38n$

to move do opposite

#

$46n + 29 = 75$

$-29 \qquad -29$

$\frac{46n}{46} = \frac{46}{46}$

$\boxed{n = 1}$