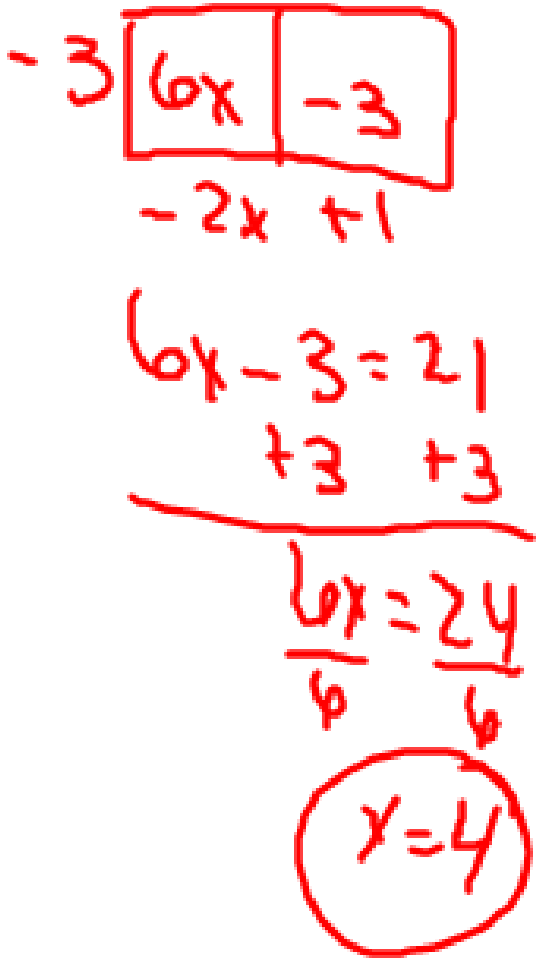
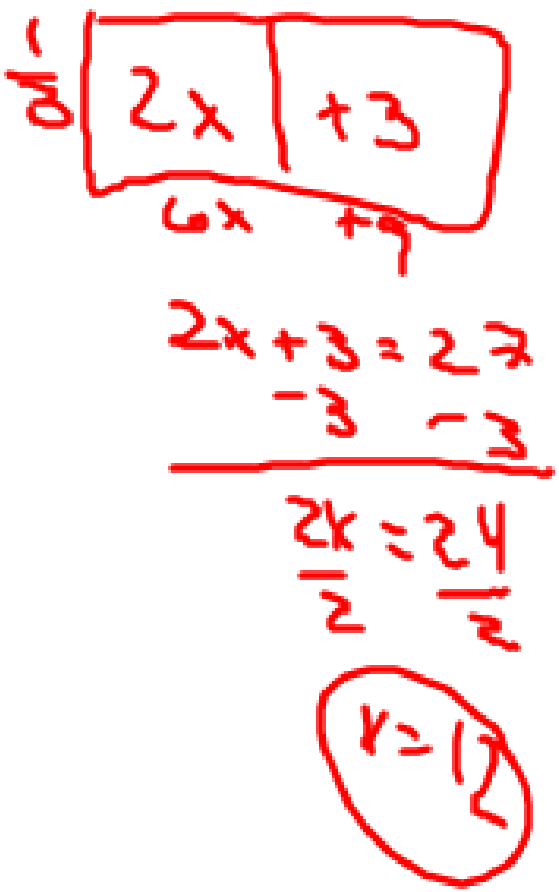
Quiz tomorrow on solving equations! Grab a Warm Up from the front table.

Classwork - Quiz Review

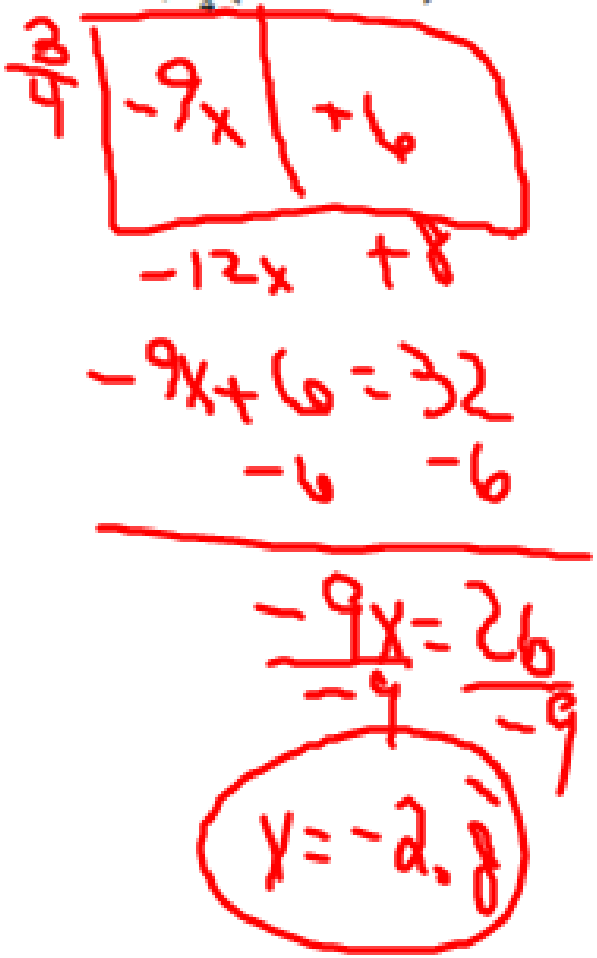
A) $-3(-2x+1)=21$



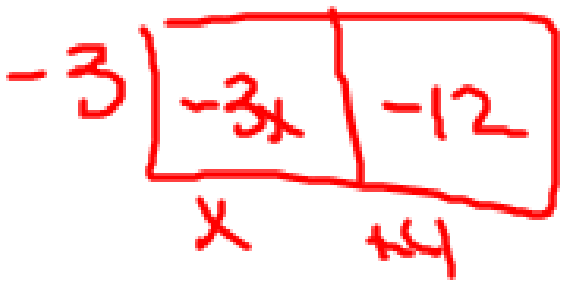
B) $\frac{1}{3}(6x+9)=27$



C) $\frac{3}{4}(-12x+8)=32$



D) $-3(x+4)+1=19$



$-3x-12+1=19$

$-3x-11=19$

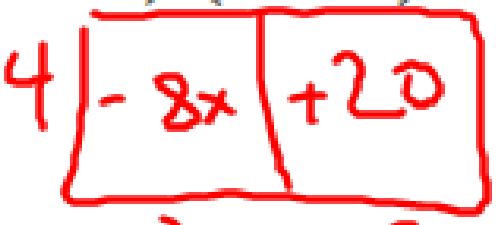
$+11 \quad +11$

$-3x=30$

$\frac{-3x}{-3}=\frac{30}{-3}$

$x=-10$

E) $4(-2x+5)+4x=-12$



$-8x+20+4x=-12$

$-4x+20=-12$

$-20 \quad -20$

$-4x=-32$

$\frac{-4x}{-4}=\frac{-32}{-4}$

$x=8$

Solving One-Step Equations

1) **What operation(s) are acting on the variable?**
2) **How do you undo that operation? → Make sure do to this on BOTH SIDES.**

Solve the following one-step equations. Make sure to show inverse operations on **BOTH sides and WORK DOWN. SHOW ALL WORK**. Guess and Check is not a method to use anymore.

A) $x + 9 = -2$

$-9 \quad -9$

$x = -11$

B) $\frac{x}{5} = -3$ $\cdot 5 \quad \cdot 5$

$x = -15$

C) $-8x = 40$

$\frac{-8x}{-8} = \frac{40}{-8}$

$x = -5$

D) $x - 15 = -6$

$+15 \quad +15$

$x = 9$

Simplifying Before Solving One-Step Equations

2) Simplify and THEN solve the following one-step equations. Make sure to show inverse operations on BOTH sides and WORK DOWN. SHOW ALL WORK. Guess and Check is not a method to use anymore.

A) $x - 5 + 8 = 12$

$x + 3 = 12$

$-3 \quad -3$

$x = 9$

B) $\frac{x}{3} = -7 + 9$

$\frac{x}{3} = 2$ $\cdot 3 \quad \cdot 3$

$x = 6$

C) $18 = -x - 2x$

$18 = -3x$

$\frac{18}{-3} = \frac{-3x}{-3}$

$-6 = x$

D) $-5x - 7x = -36$

E) $8 + x - 6 = 12$

F) $3x - 8x = -9 - 6$

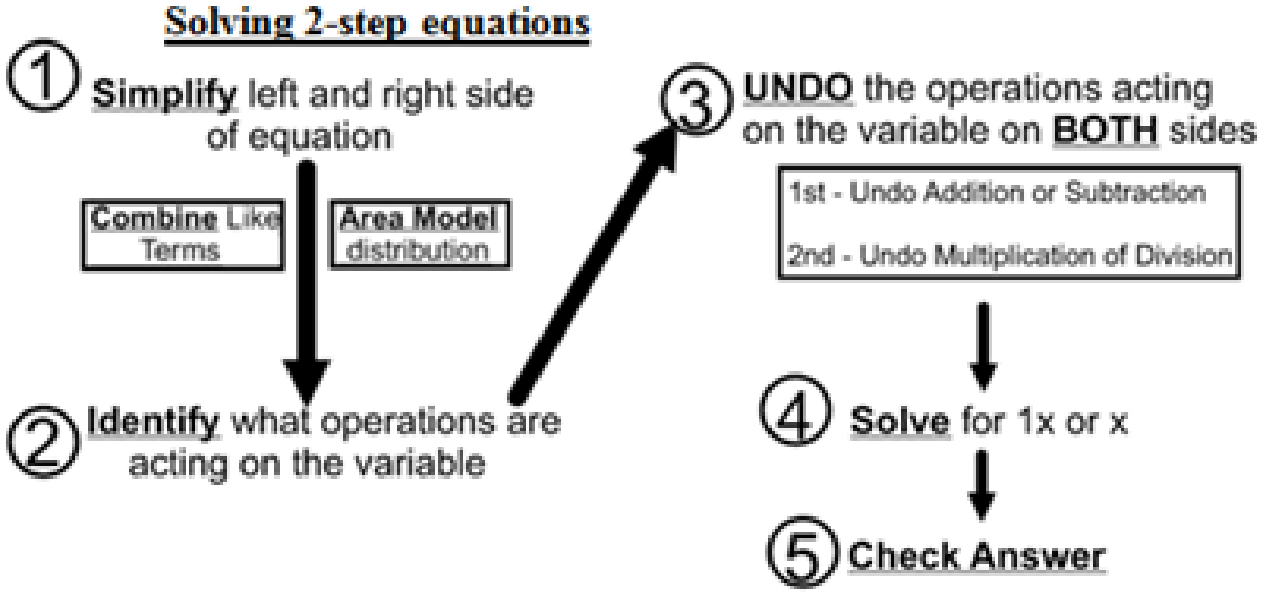
G) $-10 + 4 = -5x + 3x$

H) $-4x - 6x = -44 + 14$

I) $-3x - 4x = -8 - 6$

Solving Equations

Please use the steps shown to the right to solve all equations. If the equation is already simplified (Step 1) move on to Step 2 of the process.



Solve the following 2-step equations. SHOW ALL WORK

A) $3x + 8 = 23$

B) $\frac{t}{3} - 4 = 8$

C) $-6x - 9 = -27$

D) $\frac{t}{2} + 10 = 8$

E) $-7x + 12 = 54$

F) $-x + 8 = -3$

G) $\frac{1}{2}t + 8 = -4$

H) $-\frac{1}{3}t + 4 = 2$

$-4 \quad -4$

$\frac{-1t}{3} = -2 \cdot 3$

$-1t = -6$

$t = 6$

I) $-5x + 7 = 52$

J) $\frac{t}{5} - 7 = -2$

K) $\frac{1}{4}t + 10 = 4$

L) $-6x - 4 = -4$

M) $8 + 4x = 28$

N) $84 = -9x - 6$

O) $-13 + 5x = 22$

Solve the equations with fractions below. Remember, you can write $\frac{2}{3}x = \frac{2x}{3}$. Once you do this, you can undo the division on BOTH sides, rewrite the simpler equation, then undo the division on BOTH sides to find the answer.

A) $\frac{2}{5}x = 30$

B) $\frac{1}{3}x = -12$

C) $\frac{-3}{4}x = -9$

$5 \cdot \frac{2x}{5} = 30 \cdot 5$

$2x = 150$

$\frac{2x}{2} = \frac{150}{2}$

$x = 75$

D) $\frac{3}{8}x = -21$

E) $32 = -\frac{1}{4}x$

F) $18 = \frac{3}{2}x$

G) $-\frac{1}{4}x + 7 = 10$

H) $\frac{3}{4}x - 12 = 9$

I) $\frac{2}{5}x + 9 = 13$