Bellwork: 09/06/17

Simplify the expression.

1. $2n + 5 + 3n$ — $5n + 5$

2. $x - 7 - 4x$ — $-3x - 7$

3. $4f + f + 6f$ — $11f$

4. $(9 - m) + 4m + 7$ — $16 - 3m$

Grab a practice journal and tear out page 6. Then complete problems 2-10 even

Corrections

Check it out:

Solve $2x - 7 = 3$

Remember our goal: Get the x by himself!

There are two guys bugging the x... -7 and 2. The 2 is really locked on and the -7 is, kind of, hanging off... So, we'll go after him first:

$$\begin{array}{r} 2x - 7 = 3 \\ +7 \quad +7 \\ \hline 2x = 10 \end{array}$$

Now, ditch the 2:

$$\frac{2x}{2} = \frac{10}{2}$$

$$x = 5$$

Steps to solving multi-step equations!!!!

1. "Condense" either side
2. "Ditch" the smallest variable guy
3. Move any adding or subtracting
4. Move any multiplication or division

Start by cleaning up both sides...

$3(2x+5) = 4x+7-x+1$

distribute — add like terms

$$\begin{array}{r} 6x + 15 = 3x + 8 \\ -3x \quad\quad -3x \\ \hline 3x + 15 = 8 \\ -15 \quad -15 \\ \hline 3x = -7 \end{array}$$

ditch the smallest x guy

ditch the 15

$$\frac{3x}{3} = \frac{-7}{3}$$

ditch the 3

$$x = \frac{-7}{3}$$

Solve the equation. Check your solution.

1. $-3z + 1 = 7$ **2.** $\frac{1}{2}x - 9 = -25$ **3.** $-4n - 8n + 17 = 23$

Solve $2(1 - 5x) + 4 = -8$.

$-4 \quad -4$

$\frac{2}{2}(1-5x) = \frac{-12}{2}$

$1 - 10x = -12$

$-1 \quad -1$

$\frac{-10x}{-10} = \frac{-14}{-10}$

$x = \frac{14}{10} = \frac{7}{5}$

YOUR TURN:

Solve $3x + 8 = -7$ *And check it!

Pg.14

#1-3, 8-15, 17