

DECEMBER 15, 2014 ^{1ST} _{2ND}

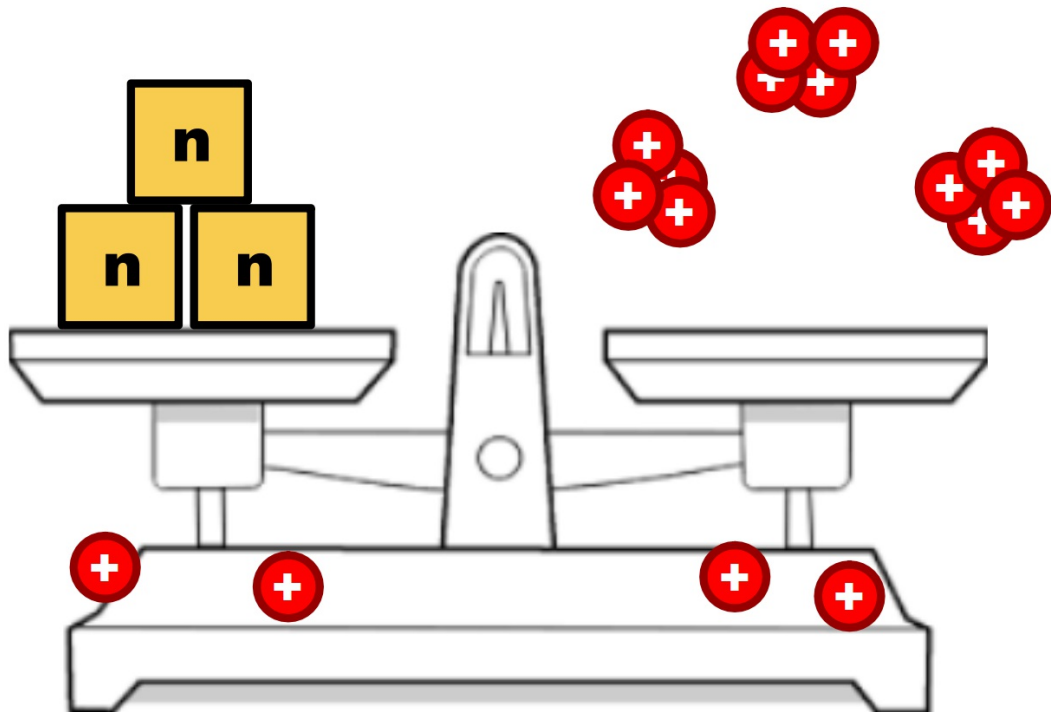
STARTER

If you reverse the digits of a father's age, you have the age of his son. A year ago, the father was twice his son's age. How old are they both now?



WINTERFLAKES

12/15 Solving Two-Step Equations



Undo means:

1. Use the number on the same side of the equation as the variable
2. Do the opposite operation
3. Do it on both sides

So... undo the add/subtract:

$$\begin{array}{r} \textcircled{x} + 5 = -1 \\ -5 \quad | \quad -5 \\ \hline -4 = \textcircled{n} - 9 \\ +9 \quad | \quad +9 \\ \hline \end{array}$$

Undo the multiply:

$$\begin{array}{r} \textcircled{3b} = -12 \\ \underline{\quad 3} \quad | \quad \underline{\quad 3} \\ \hline 20 = -6k \\ \underline{\quad -6} \quad | \quad \underline{\quad -6} \\ \hline \end{array}$$

When there are 2 operations,
save the one connected to the variable for last.

Connected to x

$$\begin{array}{l} \downarrow \\ 2x + 1 = 3 \\ \quad \downarrow \text{Do this one first} \\ \quad -1 \quad -1 \\ \hline 2x = 2 \\ \quad \downarrow \\ \quad x = 1 \end{array}$$

Connected to x

$$\begin{array}{l} \downarrow \\ \frac{x}{3} - 4 = 9 \\ \quad \downarrow \text{Do this one first} \\ \quad +4 \quad +4 \\ \hline 3 \cdot \frac{x}{3} = 13 \cdot 3 \\ \quad \downarrow \\ \quad x = 39 \end{array}$$

So, basically, get rid of the "extras" first!

TRY THESE...

$$\begin{aligned}5r + 4 &= -8 \\ \cancel{-4} \quad -4 & \\ \hline 5r &= -12 \\ \cancel{5} & \quad \quad \quad \cancel{5} \\ r &= -2\frac{2}{5}\end{aligned}$$

$$\begin{aligned}15 &= \frac{u}{6} - 7 \\ +7 & \quad \quad \quad \cancel{+7} \\ \hline 6 \cdot 22 &= \frac{u}{\cancel{6}} \cdot \cancel{6} \\ 132 &= u\end{aligned}$$

$\frac{6 \cdot 22}{6} = 22$

AND THESE...

$$\frac{a}{-2} + 5 = -3$$

$$-5 \quad -5$$

$$\cdot 2 \cdot \frac{a}{2} = -8 \cdot 2$$

$$a = 16$$

$$-20 = 8 - 6m$$

$$-8 \quad -8$$

$$\underline{-28} = \underline{-6m}$$

$$-6$$

$$4\frac{2}{3} = m$$

$$4\frac{4}{6}$$
$$\begin{array}{r} 6 \overline{) 28} \\ \underline{-24} \\ 4 \end{array}$$

HOMESCHOOL

Melon WS 6

DUE Tuesday