

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

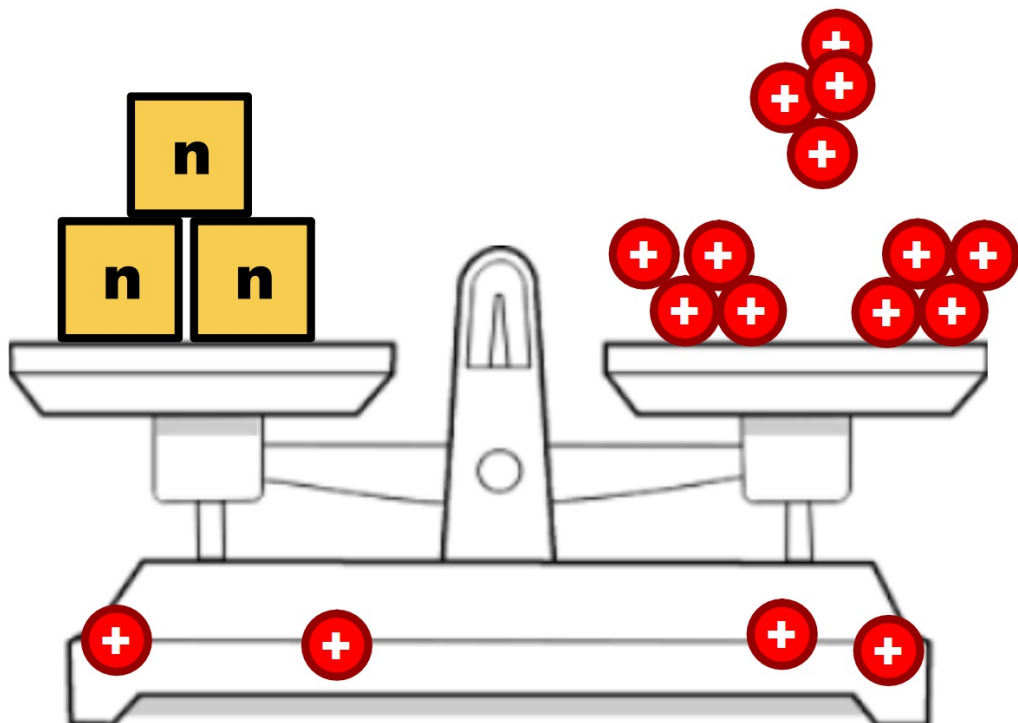
STARTER

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:

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

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

Undo the multiply:

$$\frac{3b}{3} = \frac{-12}{3}$$

$$\frac{20}{-6} = \frac{-6k}{-6}$$

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

Connected to x

↓ Do this one first

$$2x + 1 = 3$$

$\swarrow -1 \quad \searrow -1$

$$\frac{2x}{2} = \frac{2}{2}$$
$$x = 1$$

Connected to x

↓ Do this one first

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

$\swarrow +4 \quad \searrow +4$

$$3 \cdot \frac{x}{3} = 13 \cdot 3$$
$$x = 39$$

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

TRY THESE...

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

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

$$\frac{132}{6} = \frac{u}{6} \cdot 6$$

AND THESE...

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

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

$$a = 16$$

$$-20 = 8 - 6m$$

$$\begin{array}{r} -8 \quad -8 \\ -28 = \frac{-6m}{-6} \end{array}$$

$$4\frac{4}{6} = m$$

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

HOMESCHOOL

Melon WSG

DUE Tuesday