

December 16, 2014^{1st}_{2nd}

Starter

Steven, **David** and Mike had a contest to see who could bike the most miles.

Together, **Steven** and **David** biked 21 miles.

The combined total for **Steven** and **Mike** was 19.

Mike and **David** biked a total of 22 miles.

Who was the winner?



12/16 Solving Multi-Step Equations with Integers

4 steps for solving today's multi-step equations:

- 1) **Get rid of ()**
"shoot the arrows"
- 2) **Combine LIKE terms**
- 3) **Undo +/-**
Get rid of "extras"
- 4) **Undo \times/\div**

$$\begin{aligned} 3(4k - 3) &= -81 \\ 12k - \cancel{9} &= -81 \\ &\quad +9 \quad +9 \\ \cancel{12k} &= \frac{-72}{12} \\ k &= -6 \end{aligned}$$



Try these...

$$-96 = 3(6x - 2)$$

$$-96 = 18x - 6$$

$$\frac{-90}{18} = \frac{18x}{18}$$

$$-5 = x$$

$$-3(3x + 4) = -66$$

$$-9x - 12 = -66$$

$$\frac{-9x}{-9} = \frac{-54}{-9}$$

$$x = 6$$

$$-69 = -3(-4n - 1)$$

$$-69 = 12n + 3$$

$$\frac{-72}{12} = \frac{12n}{12}$$

$$-6 = n$$



Now a DOUBLE!!!

$$-2(6n-4) + 3(n-6) = -1$$

$$-12n + 8 + 3n - 18 = -1$$

$$-9n - 10 = -1$$

$$\frac{-9n}{-9} = \frac{9}{-9}$$

$$n = -1$$



Watch the signs on this one!

$$-6(r+5) - 5(-3r+2) = -31$$

$$\underline{-6r - 30} + \underline{15r - 10} = -31$$

$$9r - 40 = -31$$

$$+ 40 \quad + 40$$

$$\frac{9r}{9} = \frac{9}{9}$$

$$r = 1$$



Homework

Pink WS7

Due Thurs.

