Algebra 1 Bellwork Monday, November 2, 2015

1. Two bicyclists leave the same spot, at the same time, biking in opposite directions. The cyclist traveling East pedals 15mph. The cyclist traveling West pedals 18mph. They cycle a total of $4\frac{1}{2}$ hours and when they have both stopped they are 75 miles apart. Write and solve an equation to find out how long each cyclist pedaled for.

Time for Eastbound cyclist =

Time for Westbound cyclist =

2. Find the exact solution to each equation.

a) $\frac{4}{9}Q - \frac{2}{6} = \frac{11}{27}$

b) $9c - 4(c+3) = 3c - 6 + 2c - 1$

3. Solve for H $W = G(X - AH) + N$

Algebra 1 Bellwork Monday, November 2, 2015 ANSWERS

1. Two bicyclists leave the same spot, at the same time, biking in opposite directions. The cyclist traveling East pedals 15mph. The cyclist traveling West pedals 18mph. They cycle a total of $4\frac{1}{2}$ hours and when they have both stopped they are 75 miles apart. Write and solve an equation to find out how long each cyclist pedaled for.

Time for Eastbound cyclist = 2 hrs

Time for Westbound cyclist = $4.5 - 2 = 2\frac{1}{2}$ hrs

	$d = r \cdot t$		
EAST	$15t$	15	t
WEST	$18(4.5-t)$	18	$4.5-t$

$15 + 18(4.5 - t) = 75$

$15 + 81 - 18t = 75$ $\quad t = 2$

$-3t + 81 = 75$

$-3t = -6$

2. Find the exact solution to each equation.

a) $\frac{6}{6}\cdot\frac{4}{9}Q - \frac{2}{6}\cdot\frac{9}{9} = \frac{11}{27}\cdot\frac{2}{2}$ $\quad Q = 5/3$

$\frac{24}{54}Q - \frac{18}{54} = \frac{22}{54}$

$24Q - 18 = 22$

$24Q = 40$

$Q = 40/24$

b) $9c - 4(c+3) = 3c - 6 + 2c - 1$

$9c - 4c - 12 = 3c - 6 + 2c - 1$

$5c - 12 = 5c - 7$

$-12 = -7$ False

NO SOL

3. Solve for H $W = G(X - AH) + N$

$W - N = G(X - AH)$

use distrib prop

$H = \frac{W - N - GX}{-AG}$ or $H = \frac{W - N}{G} - X$

not use distrib prop