Algebra 1 Bellwork Tuesday, October 14, 2014

1. A boat leaves the dock traveling 13 mph. Twenty minutes later another boat leaves the same dock at 15 mph following the same route as the first boat. How long does it take the second boat to catch the first boat?

Find the exact solution to each equation.

2. $\frac{7}{9}x + \frac{5}{6} = \frac{19}{12}$

3. $8m - 2(3m + 4) + 13 = m - 1 + m - 4$

4. Solve for A $\quad BR = C(WA - KX) + EG$

5. Solve for N $\quad \frac{N + QD}{p} - RV = MC$

Algebra 1 Bellwork Tuesday, October 14, 2014

1. A boat leaves the dock traveling 13 mph. Twenty minutes later another boat leaves the same dock at 15 mph following the same route as the first boat. How long does it take the second boat to catch the first boat?

2 hrs 10 min

	d	r	t
1ST Boat	$13t$	13	t
2nd Boat	$15(t - 1/3)$	15	$t - 1/3$

20 min = 1/3 hr

DISTANCES ARE =

$13t = 15(t - 1/3)$

$13t = 15t - 5$

$-15t \quad -15t$

$\frac{-2t}{-2} = \frac{-5}{-2}$

$t = 2.5$ hrs

$t - 1/3 = 2.5\text{hrs} - 1/3\text{hr}$

$= 2\text{hr } 30\text{ min} - 20\text{ min}$

$= 2\text{hr } 10\text{ min}$

Find the exact solution to each equation.

2. $\left(\frac{7}{9}x + \frac{5}{6} = \frac{19}{12}\right)36$

$28x + 30 = 57$

$-30 \quad -30$

$28x = 27$

$x = \frac{27}{28}$

3. $8m - 2(3m + 4) + 13 = m - 1 + m - 4$

$8m - 6m - 8 + 13$

$2m + 5 = 2m - 5$

$-2m \quad -2m$

$5 = -5 \rightarrow$ NOT TRUE!

NO SOL

4. Solve for A $\quad BR = C(WA - KX) + EG$

$-EG \quad -EG$

$\frac{BR - EG}{C} = \frac{C(WA - KX)}{C}$

$\frac{\frac{BR - EG}{C} + KX}{W} = \frac{WA}{W}$

$\frac{BR - EG}{C} + KX = A$

OTHER ANSWERS ARE POSSIBLE

$\frac{BR - EG}{C} = WA - KX$

$+KX \quad +KX$

5. Solve for N $\quad \frac{N + QD}{p} - RV = MC + RV$

$+RV$

$N = P(MC + RV) - QD$

$p \cdot \frac{N + QD}{p} = (MC + RV)p$

$N + QD = P(MC + RV)$

$-QD \quad -QD$