Algebra 1 Bellwork Tursday, October 9, 2014

1. The perimeter of a rectangle is 22. The length is five less than seven times the width. Write and solve an equation to find the dimensions of the rectangle.

2. Three integers have a sum of six. The second integer is six more than seven times the first. The third integer is one hundred less than twice the second integer. Write and solve an equation to find these three integers.

3. I drove to work in the morning and returned home in the evening. I drove a total of 4 hours. If I drove x hours in the morning write an expression for the amount of time I drove in the evening.

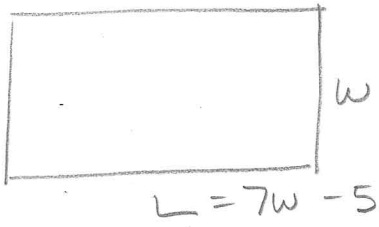
4. Solve this equation for Q. $\frac{CQ - W}{R} + A = P$

5. Solve this equation for G $B(N + G) - D = X$

6. Solve this equation for M $\frac{E}{F} = \frac{K + J}{M}$

BELLWORK ANSWERS

#1



2 X 9 or 9 X 2

$P = 2L + 2w$

$22 = 2(7w-5) + 2w$

$22 = 14w - 10 + 2w$

$22 = 16w - 10$

$+10 \quad +10$

$\frac{32}{16} = \frac{16w}{16}$

$w = 2$

$L = 7(2) - 5$

$= 14 - 5 = 9$

(2)

$$\frac{x}{x+7x+6} + \frac{7x+6}{14x+12-100} + \frac{2(7x+6)-100}{} = 6$$

$22x - 88 = 6$

$+88 \quad +88$

$\frac{22x}{22} = \frac{88}{22}$

$x = 4$

4, 34, -32

(3)

Time driven in evening = TOTAL TIME − MORNING TIME

$= 4 - x$

(4)

$\frac{CQ-w}{R} + A = P - A \rightarrow R\left(\frac{CQ-w}{R}\right) = (P-A)R \rightarrow CQ - w = R(P-A)$

$+A \quad -A \qquad\qquad +w \quad +w$

$Q = \frac{R(P-A)+w}{C}$

$\frac{CQ}{C} = \frac{R(P-A)+w}{C}$

(5)

$B(N+G) - D = X$

OPTION 1

USE DISTRIB PROP

$BN + BG - D = X$

$+D \quad +D$

$BN + BG = X + D$

$-BN \qquad -BN$

$\frac{BG}{B} = \frac{X+D-BN}{B}$

$G = \frac{X+D-BN}{B}$

-OR-

OPTION 2

DON'T USE DISTRIB PROP

$B(N+G) - D = X$

$+D \quad +D$

$\frac{B(N+G)}{B} = \frac{X+D}{B}$

$N + G = \frac{X+D}{B} - N$

$-N \qquad -N$

$G = \frac{X+D}{B} - N$

(6) $\frac{E}{F} = \frac{K+J}{M}$

one method → cross multiply

$$EM = F(K+J)$$

now ÷ by E

$$M = \frac{F(K+J)}{E}$$

-OR- ANOTHER METHOD → MULTIPLY BOTH SIDES BY M 1ST

$$M \cdot \frac{E}{F} = \frac{K+J}{M} \cdot M$$

$$\frac{F}{E} \cdot \frac{E}{F} M = (K+J) \cdot \frac{F}{E}$$ NOW MULT BOTH SIDES BY THE RECIPROCAL OF E/F

$$M = \frac{F}{E}(K+J)$$