

Name: _____

Date: _____

Hour: _____

Unit 1 Day 14: Variables on Both Sides Practice Day

Focus Question: Can I solve an equation with variables on both sides?

Letter Scramble:

Working with your partner you will start at a problem. After you BOTH work the problem, compare answers and correct any work necessary if your answers disagree. Your agreed upon answer should be one of the three possible answers. (If it is not, then you worked the problem incorrectly). Your answer gives you a letter. Then pick a new poster. When you have all your letters, unscramble them to spell a mathematical word.

Problem #	Equation and Work	Solution	Gives us Letter...
1	$12k + 15 = 35 + 2k$ $\begin{array}{r} -2k \\ \hline 10k + 15 = 35 \end{array}$ $\begin{array}{r} -15 \\ \hline 10k = 20 \end{array}$ $\begin{array}{r} 10 \\ \hline k = 2 \end{array}$ $S = Q \quad Q = U \quad -4 = I$	2	U
2	$6x - 12 = 12 + 6x$ $\begin{array}{r} +6x \\ \hline 12x - 12 = 12 \end{array}$ $\begin{array}{r} +12 \\ \hline 12x = 24 \end{array}$ $\begin{array}{r} 12 \\ \hline x = 2 \end{array}$ $2 = 2 \quad \infty = A \quad 0 = S$	x = 2	O
3	$4(2f - 8) = 3(2 + 3f)$ $8f - 32 = 6 + 9f$ $\begin{array}{r} -8f \\ \hline -32 = 6 + f \end{array}$ $\begin{array}{r} -6 \\ \hline -38 = f \end{array}$	f = -38	O

4	$6p + 7 = 8p - 13$ $\begin{array}{r} -8p \quad -8p \\ \hline -2p + 7 = -13 \end{array}$ $\begin{array}{r} -7 \quad -7 \\ \hline -2p = -20 \end{array}$ $\begin{array}{r} -2 \quad -2 \\ \hline p = 10 \end{array}$	$p = 10$	N
5	$4y - 10 = 4y + 10$		I
6	$2 - 3b = 2b - 8$ $\begin{array}{r} +3b \quad +3b \\ \hline 2 = 5b - 8 \end{array}$ $\begin{array}{r} +8 \quad +8 \\ \hline 10 = 5b \end{array}$ $\begin{array}{r} 5 \quad 5 \\ \hline b = 3 \end{array}$	$b = 3$	L
7	$3a + 6b = 12a + 30$ $\begin{array}{r} -3a \quad -3a \\ \hline 6b = 9a + 30 \end{array}$ $\begin{array}{r} -30 \quad -30 \\ \hline 36 = 9a \end{array}$ $\begin{array}{r} 9 \quad 9 \\ \hline a = 4 \end{array}$	$a = 4$	T
8	$3m + 20 = -5m + 20$ $\begin{array}{r} +5m \quad +5m \\ \hline 8m + 20 = 20 \end{array}$ $\begin{array}{r} -20 \quad -20 \\ \hline 8m = 0 \end{array}$	$m = 0$	S

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