<u>Homework Assignments</u>

Module 3 Unit 4 - Expressions and Equations Unit 4

Standard		Description		
7.EE.A.1	→ Apj rati	→ Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.		
7.EE.A.2	Understand how the qua	Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related.		
7.EE.B.3	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.			
7.EE.B.4	Use variables to represent quantities in a real-world or mathematical problems, and construct simple equations and inequalities to solve problems by reasoning about the quantities.			
Less After FULLY c lesson, check th	on ompleting a le box below.	I can After completing each lesson, you are on the right track if you can confidently state "I can"		
	4.1	Define key vocabulary in mathematical expressions		
	4.2	Combine like terms to create equivalent expressions		
	4.3	Solve one-step equations		
	4.4	Solve one-step equations		
	4.5	Solve one-step inequalities		
	4.6	Solve two-step equations		
	4.7	Solve two-step equations		
	4.8	Solve two-step inequalities		

Homework is due the following day, but you can always turn it in early!

The skills and concepts that you learn in this packet will appear as your grade for the standards listed above.			
A = 4 EXCEEDS	All questions have been attempted and have justification that proves and explains their solution.		
B = 3 MEETS	Most questions have been attempted and have justification that proves and explains their solution.		
C = 2 DEVELOPING	Some or all questions are attempted, but does not contain a justification or explanation for the solution.		
D = 1 WELL BELOW	Few or none of the questions are attempted, and does not contain a justification or explanation for the solution.		

Dear Students,

I know that math homework can be a **DAUNTING** task and sometimes it's hard to find the time to complete it. Please know that these assignments have been designed to help support your mathematical **thinking** - my goal is not to give you busy work. We will use homework to have conversations and practice in class the following day so it is really **important** that you try to complete it each night. If you need help, email me! Date: _____

1. Explain the difference between standar	rd and expanded forms of expressions.
2. What is a "like term"?	
ombine Like Terms in these Algebraic	Expressions
emember to Add up Like Terms and Remem	ber the Rules of Adding and Subtracting Rational Numbers
1. $6x + 5 + 2y - 5x + 3$	2. $x - y + 2x - 2 + 3y + 3 + 2y - x$
.ike Terms:	Like Terms:
.ike Terms:	Like Terms:
.ike Terms:	Like Terms:
implified expression	Simplified expression
3. $2 + 2s + 5x + 2x + 11s + 10$	What are you struggling with from this lesson?
ike Terms:	
ike Terms:	
.ike Terms:	
implified expression	

Independent Practice Lesson 4.2		
DIRECTIONS: Create an equivalent expression by either factoring or distributing.	Explain why you chose the property (factoring or distributing) that you used. CIRCLE ONE.	
1. 8 (4x - 12)	I factored/distributed because	
2. 10x + 35	I factored/distributed because	
32.5(3x + 8y)	I factored/distributed because	

4. Are factoring and distributing opposite properties? Explain with an example and words.

Independent Practice Lesson 4.3			
For each of the following problems, solve the equation for the given variable. <i>Show your work for every problem.</i> Credit will only be given if you show your work.			
-20 = k - 7	-105 = -5g	-6 + h = 12	
Check with substitution:	Check with substitution:	Check with substitution:	
5 + x = 45 Check with substitution:	$7 = \frac{b}{11}$ Check with substitution:	$-9 = \frac{n}{-19}$ Check with substitution:	

Independent Practice Lesson 4.4			
For each of the following problems, solve the equation for the given variable. <i>Show your work for every problem.</i> Credit will only be given if you show your work. <i>Check using substitution!</i>			
23.7 + x = 12.9	$\frac{1}{4} x = 5$	$\frac{x}{3.5} = 4$	
Check with substitution:	Check with substitution:	Check with substitution:	
$\frac{5}{4} = x - \frac{1}{2}$	$\frac{x}{3} = \frac{1}{3}$	2.4x = 24	
Check with substitution:	Check with substitution:	Check with substitution:	

Independent Practice Lesson 4.5			
Directions: Solve, Check and G	raph each inequality. Then list pos	ssible solutions for the variable.	
Solve & Check:	Graph:	List Possible Solutions	
1. k - 20 <u><</u> -21			
2. 39 ≤ 21 + p			
3. 60 < -5r			
$19 \leq \frac{n}{2}$			
27			

5. What is different about the solution to an inequality than an equation?

Name: _____

Independent Practice Lesson 4.6			
DIRE 1. 2. 3. 4.	CTIONS: Box the variable term Isolate the variable term Isolate the variable Check your solution		Check your work at the bottom EXPLAIN & CORRECT any problems you missed here!
1.	6x + 8 = 50	CHECK:	
2.	13 = -4k + 9	CHECK:	
3.	$\frac{3}{5}x + 22 = 28$	CHECK:	
4.	$-10 + \frac{7}{4}p = -38$	CHECK:	

Answers: (1) x = 7 (2) k = -1 (3) x = 10 (4) p = -16

Name: _____

Independent Practice Lesson 4.7			
DIRECTIONS: 5. Box the variable term6. Isolate the variable term7. Isolate the variable8. Check your solution	Check your work at the bottom EXPLAIN & CORRECT any problems you missed here!		
1. 6.6x + 2 = 8.6 CHECK:			
2. $\frac{a+8}{9} = 3$ CHECK:			
3. Create your own two-step equation! CHECK:	What is a mistake someone would make?		
4. Create your own two-step equation! CHECK:	What is a mistake someone would make?		

Independent Practice Lesson 4.8			
DIRECTIONS: Solve the two step inequalities below. Solve, Check, Graph!			
1) $2n + 7 \ge 49$	2) $-2t + 13 \ge -21$	 <i>59</i> > −<i>7</i>υ + 6 	
←	\longleftrightarrow	\longleftrightarrow	
4. Describe what the solutions to	o inequalities actually mean?		
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5. Name five possible solutions	for this solution set: $y < 8$.		
6. What is the difference betwee	en these two solution sets: $a < 10$	AND $a \leq 10$	

Name: _____

Study Guide Directions: Use the following guiding questions, enduring understandings, vocabulary and models, to make a visual study guide in the box below. Feel free to add information on the back or on a separate sheet of paper.

Unit 4 Study Guide