Rutherford County Schools – Instructional Learning Modules
Middle Level Mathematics

Grade	Course
7th	**Math**

Unit Focus
Multi-Step Problems

Week of May 11 – May 15

Standard(s)
7.EE.B.3 Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers presented in any form (whole numbers, fractions, and decimals).

Resources

Monday-
15 Minutes – iReady Learning Path -Login through Clever

Khan Academy- Rational Number Word Problem- 2 minutes
https://www.khanacademy.org/math/7th-grade-illustrative-math/unit-5-rational-number-arithmetic/lesson-14-solving-problems-with-rational-numbers/v/multistep-word-problems-example-3

Khan Academy- Rational Number Word Problem- 2 ½ minutes
https://www.khanacademy.org/math/pre-algebra/pre-algebra-ratios-rates/pre-algebra-percent-word-problems/v/multistep-word-problems-example-2

Tuesday-
15 Minutes – iReady Learning Path -Login through Clever

Khan Academy Rational Number Word Problem 3 ½ minutes
https://www.khanacademy.org/math/pre-algebra/pre-algebra-ratios-rates/pre-algebra-percent-word-problems/v/multistep-word-problems-example-1

Khan Academy Follow Up Questions- 4 Questions
https://www.khanacademy.org/math/7th-grade-illustrative-math/unit-5-rational-number-arithmetic/lesson-14-solving-problems-with-rational-numbers/e/multistep-equations-without-variables

Wednesday-
15 Minutes – iReady Learning Path -Login through Clever

Kahn Academy- Computing with Rational Numbers- 4 ½ minutes

https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-fractions-decimals/cc-7th-add-sub-rational-numbers/v/adding-fractions-decimals-and-percentages]

Kahn Academy- Practice with Rational Numbers- 4 problems
https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-fractions-decimals/cc-7th-add-sub-rational-numbers/e/adding_and_subtracting_rational_numbers

Thursday-
15 Minutes – iReady Learning Path -Login through Clever

Task: Cost of school lunch

7th Grade Gary and Cody's mom needs help to determine how much lunch money to send with each child in order to pay for their lunches for the remaining 26 days left in the school year. The brothers attend separate schools. Gary is in high school while Cody is in elementary school.

- a.) Gary has $23.50 in his lunch account at school. His mom writes a check for $35.00 to finish out the year. Write and solve an equation to determine how much each lunch costs at the high school.
- b.) Cody has $16.40 in his lunch account. A lunch at the elementary school costs $1.75. If his mom writes a check for $25.00, will he have enough money in his account to pay for lunches for the remainder of the school year? Justify your response with an equation or inequality.
- c.) Identify the meaning of each number and variable in your equations or inequalities above

Friday-
15 Minutes – iReady Learning Path -Login through Clever

Practice Book pages 167-168 (See below)

Name: _____

Solve Problems with Equations

Solve the problems.

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1 Kia buys a shirt that costs $12.50 and some pairs of socks that are $2.50 each. She pays a total of $27.50. How many pairs of socks did Kia buy?

Show your work.

> How can you get the term with the variable by itself on one side of the equation?

Solution: _____

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2 Draw lines to show the correct order of the steps that you could take to solve the equation $\frac{2}{5}\left(x + \frac{5}{2}\right) = 27$.

> How can the distributive property help you solve this problem?

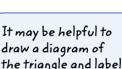| Step 1	$\frac{2}{5}x = 26$
Step 2	$\frac{2}{5}x \cdot \frac{5}{2} = 26 \cdot \frac{5}{2}$
Step 3	$x = 65$
Step 4	$\frac{2}{5}x + 1 = 27$

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3 The length of each of the two congruent sides of an isosceles triangle is $3x - 1$. The length of the third side is $2x + 1$. The perimeter is 55 feet. Which equation does NOT represent the perimeter?

> It may be helpful to draw a diagram of the triangle and label its sides.

A $8x - 1 = 55$

B $6x - 2 + 2x + 1 = 55$

C $2(3x - 1 + 2x + 1) = 55$

D $2(3x - 1) + (2x + 1) = 55$

Solve.

4 Karif plans to use a 20% off coupon on a $27.60 purchase. Tell whether each statement is *True* or *False*.

> A coupon gives the customer a discount.

a. The discounted price is $7.60. ☐ True ☐ False

b. The discounted price will be 80% of the original purchase price. ☐ True ☐ False

c. Karif will save $22.08 with his coupon. ☐ True ☐ False

d. Karif would save more money if he used a $5 off coupon. ☐ True ☐ False

5 T-shirts are on sale for $4 off the regular price. Jeb buys 5 T-shirts for a total of $45.05, including a 6% sales tax. Which equation can Jeb use to find the regular price, r, of 1 T-shirt?

> How can you express the sale price of 5 T-shirts?

A $0.06(5r - 4) = 45.05$

C $1.06 \cdot 5(r - 4) = 45.05$

B $5(r - 4) = 1.06 \cdot (45.05)$

D $5(r - 4) + 0.06r = 45.05$

6 Jelani's family is putting up a fence around their yard shown in the diagram below. They don't need to fence the wall of the house that is against the yard. They need 106 feet of fencing. The length of the yard is $5x + 8$. Find the length of the yard.

> Have you answered the question that the problem asks?

Show your work.

Solution: _____

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Expected Outcomes

Solve multi-step, real-world and mathematical problems with rational numbers where conversion between forms of rational numbers may or may not be required.