



MATH NEWS



LAFAYETTE
PARISH SCHOOL SYSTEM

Grade 7, Module 2, Topic C

7th Grade Math

Module 2: Rational Numbers

Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 2 of Eureka Math (Engage New York) builds on their understanding of rational numbers to add, subtract, multiply, and divide signed numbers. Previous work in computing the sums, differences, products, and quotients of fractions serves as a significant foundation as well.



Focus Area Topic C:

*Applying Operations with Rational Numbers
To Expressions and Equations*

Words to Know:

Additive Identity - the additive identity is 0.

Break-Even Point - the point at which there is neither a profit nor loss.

Profit - a gain; as in the positive amount represented by the difference between the money earned and spent.

Students understand that if a number sentence is true and we make any of the following changes to the number sentence, the resulting number sentence will be true:

Adding the same number to both sides of the equation

$$\text{If } a = b, \text{ then } a + c = b + c$$

Subtracting the same number from both sides of the equation

$$\text{If } a = b, \text{ then } a - c = b - c$$

Multiplying each side of the equation by the same number

$$\text{If } a = b, \text{ then } a(c) = b(c)$$

Dividing each side of the equation by the same nonzero number

$$\text{If } a = b \text{ and } c \neq 0, \text{ then} \\ a \div c = b \div c$$

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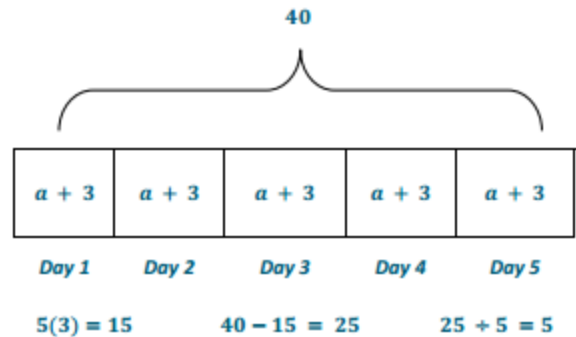
In Topic C, students problem-solve with rational numbers and draw upon their work from Grade 6 with expressions and equations. They perform operations with rational numbers, incorporating them into algebraic expressions and equations.

Example Problem and Answer

Problem: Eric's father works two part-time jobs; one in the morning, and one in the afternoon, and works a total of 40 hours each 5-day work week. If his schedule is the same each day and he works 3 hours each morning, how many hours does Eric's father work each afternoon?

Answer: Eric's father works 5 hours in the afternoon.

Tape Diagram



Algebraic Equation & Solution

Number of Afternoon hours: a

Number of Morning hours: 3

$$5(a + 3) = 40 \quad \text{This means 5 groups of } a+3$$

$$5a + 15 = 40 \quad \text{Distributive Property}$$

$$\text{If } 5a + 15 = 40, \text{ then } 5a + 15 - 15 = 40 - 15$$

$$5a + 0 = 25 \quad \text{Simplify the equation}$$

$$5a = 25 \quad \text{Divide by 5 or multiply by } \frac{1}{5} \text{ to solve for } a.$$

$$a = 5$$

