



MATH NEWS



LAFAYETTE
PARISH SCHOOL SYSTEM

Grade 6, Module 2, Topic B

6th Grade Math

Module 2: Arithmetic Operations Including Division of Fractions

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 being taught in the classroom. In Module 2 of Eureka Math (Engage New York), students will complete their understanding of the four operations (addition, subtraction, multiplication and division) through the study of division of whole numbers, division by fractions and operations on multi-digit decimals.



Focus Area Topic B:

Multi-digit Decimal Operations – Adding, Subtracting and Multiplying

Words to Know:

Addend - a number that is added to another.

Minuend - a quantity or number from which another is to be subtracted.

Subtrahend – a quantity or number to be subtracted from another

Sum – the result of adding two or more numbers

Difference – the result of subtracting one number from another

Distributive Property – property of numbers which is used to multiply a single term and two or more terms inside a set of parentheses

Students begin this topic by relating what they know about mixed numbers from the last lesson in Topic A. They will discover that finding the sums and differences of large mixed numbers can be more efficiently determined by first converting to a decimal and then solving. Through the use of the distributive property, students will tackle decimal multiplication. Students' understanding of place value will help them determine decimal placement in products. This will also help the students to recognize that the size of the product is relative to each factor.

Module 2: Topic B

Focus Area Topic B:

*Multi-digit Decimal Operations
Adding, Subtracting and Multiplying*

Adding and Subtracting Decimals

Example Problem and Solution

Ben has $2\frac{1}{2}$ boxes of cookies. His friend gave him $1\frac{3}{4}$ more boxes. How many boxes does Ben have altogether?

This problem can be tackled several ways. First we can estimate. Estimation can be used to get an approximate answer to verify that your answer is correct or as we say reasonable.

$2\frac{1}{10}$ can round to 2 and $1\frac{3}{4}$ rounds to 2.

$$2 + 2 = 4$$

We could also give each mixed number the same denominator and solve.

$$\begin{array}{r} 2\frac{1 \times 2}{10 \times 2} = 2\frac{2}{20} \\ + 1\frac{3 \times 5}{4 \times 5} = 1\frac{15}{20} \\ \hline 3\frac{17}{20} \end{array}$$

The answer appears reasonable because it is so close to our estimate.

An easier way to solve this problem would be to convert the fractions to decimals. We do this by dividing the numerator by the denominator.

$$1 \div 10 = .1 \quad 3 \div 4 = .75 \quad \text{so we have } 2.1 + 1.75.$$

We line up the decimal points and add, adding 0s for placeholders when necessary.

$$\begin{array}{r} 2.10 \\ + 1.75 \\ \hline 3.85 \text{ boxes} \end{array}$$

Ben has 3.85 boxes altogether.

Example Problem and Solution

Jenny wants to walk $2\frac{1}{2}$ miles. So far she has walked

$1\frac{1}{4}$ miles. How many more miles does she have left to walk?

$$\begin{array}{r} \frac{1}{2} = .5 \quad \frac{1}{4} = .25 \\ 2.50 \\ - 1.25 \\ \hline 1.25 \text{ miles left to walk} \end{array}$$

