MATH NEWS

Grade 4, Module 5, Topic B

LAFAYETTE PARISH SCHOOL SYSTEM

4th Grade Math

Module 5: Fraction Equivalence, Ordering, and Operations

Math Parent Letter

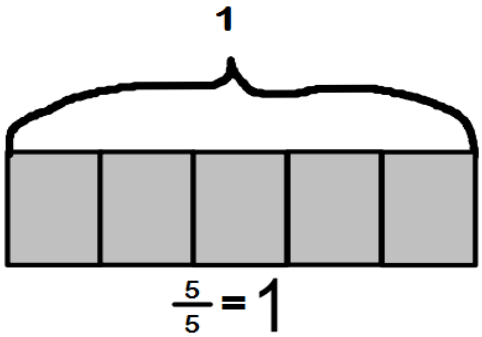
This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 5 of Eureka Math (Engage New York) covers fraction equivalence, ordering, and operations.

Focus Area Topic B:

Fraction Equivalence Using Multiplication and Division

Words to Know:

Whole fraction – when the numerator and the denominator are the same e.g., 2 halves, 3 thirds, 4 fourths



Non-unit fraction - fraction with numerators other than 1

Equivalent fractions - fractions that name the same size or amount

Compose -change a group of unit fractions with the same denominator to a single non-unit fraction or mixed number

Decompose - change a non-unit fraction or mixed number to the sum of its parts or unit fractions

OBJECTIVES OF TOPIC A

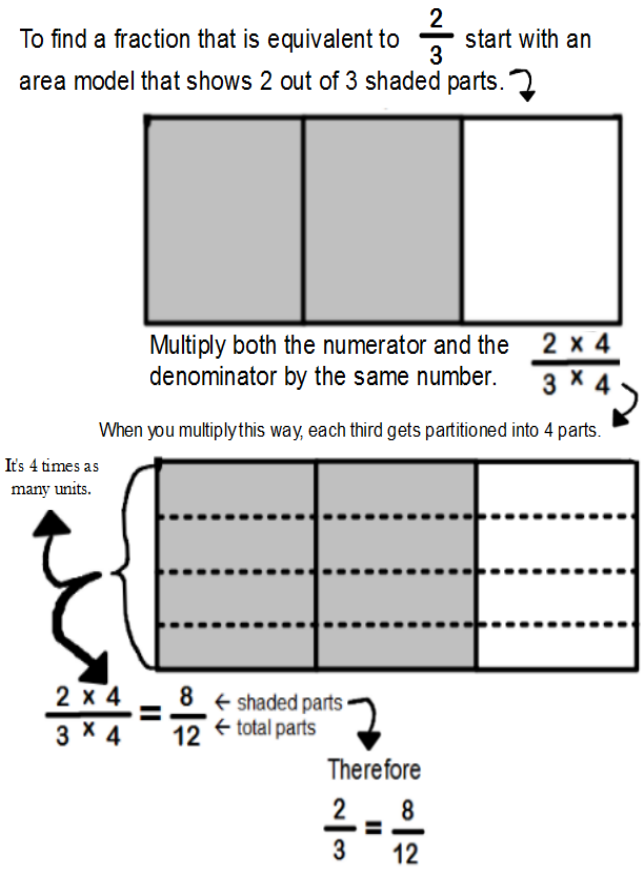
- Use the area model and multiplication to show the equivalence of two fractions.
- Use the area model and division to show the equivalence of two fractions
- Explain fraction equivalence using a tape diagram and the number line, and relate that to the use of multiplication and division.

Focus Area – Topic B

Fraction Equivalence Using Multiplication and Division

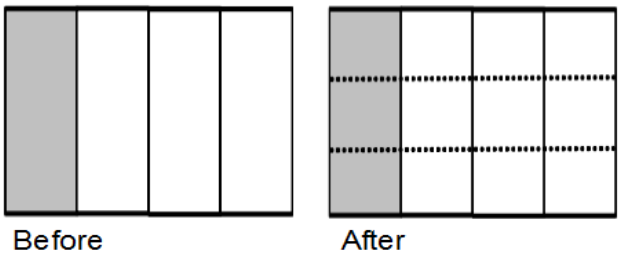
The Area Model and Fraction Equivalence using Multiplication

Students create equivalent fractions with area models.



Example Problem and Answer

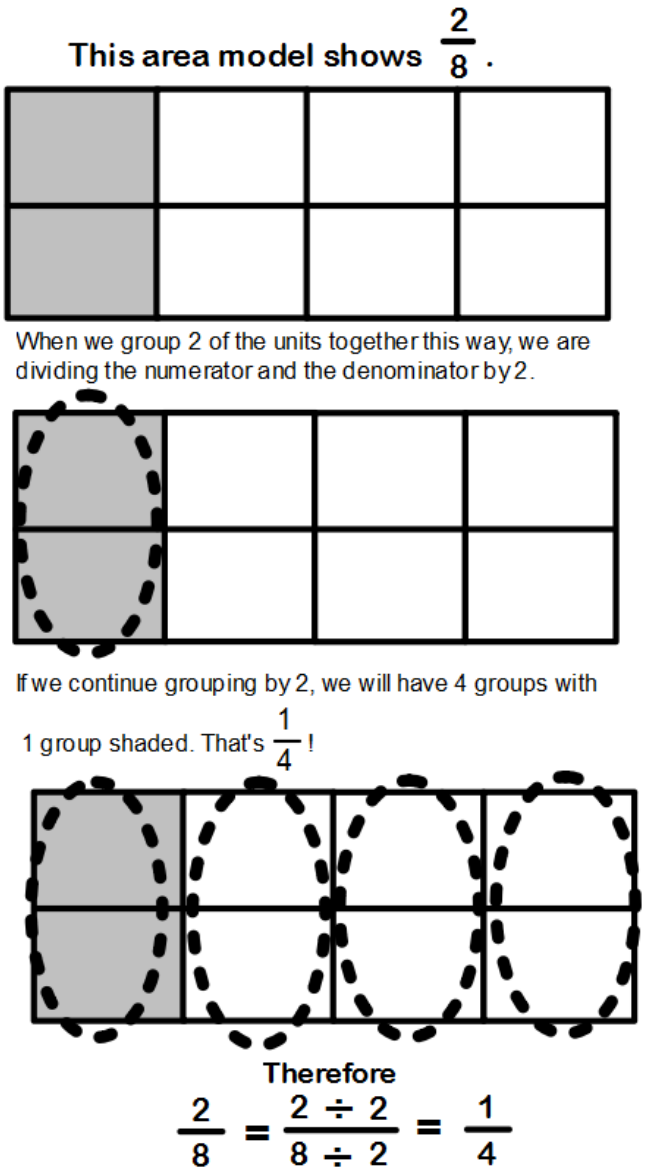
Students will be asked to decompose the shaded fraction into smaller units using an area model. Then they will need to express the equivalent fraction in a number sentence using multiplication. Below is one way to solve. Can you think of another way?



$$\frac{1}{4} = \frac{1 \times 3}{4 \times 3} = \frac{3}{12}$$

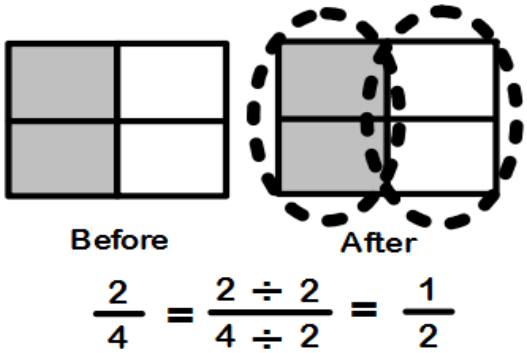
The Area Model and Fraction Equivalence using Division

Students will learn that division can be used to create a fraction comprised of larger units (or a single unit) that is equivalent to a given fraction.



Example Problem and Answer

Students are asked to compose the shaded fraction into larger fractional units and express the equivalent fraction in a number sentence using division.



Focus Area Topic B:

Fraction Equivalence Using Multiplication and Division

Fractions and the Number Line

Students use tape diagrams to transition their knowledge of fraction equivalence to the number line.