



# MATH NEWS



Grade 3, Module 1, Topic C

Fall 2014

## 3<sup>rd</sup> Grade Math

*Module 1: Properties of Multiplication and Division and Solving Problems with Units of 2-5 and 10*

### 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 1 of Eureka Math (Engage New York) covers Properties of Multiplication and Division and Solving Problems with Units of 2-5 and 10. This newsletter will discuss Module 1, Topic C.

Topic C. Analyzing Arrays to Multiply Using Units of 2 and 3

### Vocabulary Words

- Commutative Property
- Parenthesis

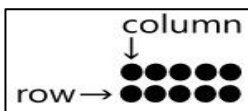
### Things to Remember!!!

Students are introduced to the commutative property. They will gain an understanding that the commutative property means that when multiplying, the factors can change places, but the total does not change.

$$6 \times 4 = 24 \text{ and } 4 \times 6 = 24$$

$$6 \times 4 = 4 \times 6$$

They will distinguish rows from columns, noticing that the meaning of the factors change according to the orientation of the array.



**Rotate** – turn, used with reference turn 90°.

Students will also begin to learn about **parenthesis** ( ).

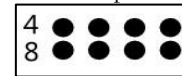
## OBJECTIVE OF TOPIC C

- 1 Demonstrate the commutativity of multiplication and practice related facts by skip-counting objects in array models.
- 2 Find related multiplication facts by adding and subtracting equal groups in array models.
- 3 Model the distributive property with arrays to decompose units as a strategy to multiply.

## Focus Area– Topic C

*Analyzing Arrays to Multiply Using Units of 2 and 3*

Becky organizes her stickers on a page in her sticker book. She arranges them in 2 rows and 4 columns. Draw an array to show Becky's stickers. (Label the array to show how you skip-count to solve the multiplication sentence)



Use your array to write a multiplication sentence to find the total number of stickers.

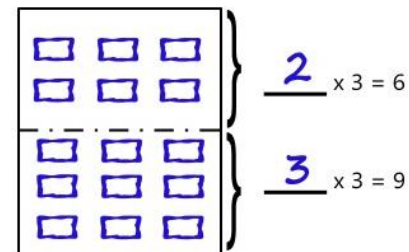
$$2 \times 4 = 8$$

Use what you know about the **commutative property** to write a different multiplication sentence for your array.

$$4 \times 2 = 8$$

Tracy is making a sticker album. She puts 3 pictures in each row.

- Use the multiplication sentence on the right. Draw arrays to show the stickers on the upper and lower part of Tracy's album page.



- Tracy calculates the total number of pictures as shown below. Use the array you drew to help explain.

$$5 \times 3 = 6 + 9 = 15$$

*The whole array shows 5 rows times 3 in each row. (5 rows times 3 columns which is 5 x 3). Then maybe Tracy did not know the answer to 5 x 3 so she broke it into 2 smaller facts. 2 x 3, which is 6 and 3 x 3, which is 9. So she did 6 + 9 because 5 x 3 = 6 + 9. Then if you multiply 5 x 3 it is 15, and if you add 6 + 9 it is 15. So 5 x 3 = 6 + 9 = 15*