



# MATH NEWS



Grade 3, Module 3, Topic B

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

Module 3: Multiplication and Division with Units of 0, 1, 6-9, and Multiples of 10

### Math Parent Letter

This document gives parents and students a better understanding of the Eureka math concepts that are taught in the classroom. Module 3 of Eureka Math covers Multiplication and Division with Units of 0, 1, 6-9 and Multiples of 10. This newsletter will discuss Module 3, Topic B.

Topic B. Multiplication and Division Using Units of 6 & 7

### Vocabulary Words

- Commutative Property
- Distributive Property
- Decompose

### Things to Remember!!!

#### What is decomposing?

Decompose it to break a number apart. When the numbers are not as big it is easier for students to multiply or divide problems. The number 25 can be decomposed into  $20 + 5$ , or  $10 + 10 + 5$ .



## OBJECTIVE OF TOPIC B

- 1 Count by units of 6 to multiply and divide using number bonds to decompose
- 2 Count by units of 7 to multiply and divide using number bonds to decompose
- 3 Use the distributive property as a strategy to multiply and divide units of 6 & 7
- 4 Interpret the unknown in multiplication and division to model and solve problems using units of 6 & 7

## Focus Area- Topic B

Multiplication and Division Using Units of 6 & 7

Using number bonds to decompose and to skip count

$$\begin{array}{r} 7 + 7 \\ 10 \quad 3 \quad 4 \end{array} \quad \begin{array}{r} 7 + 3 = 10 \\ 10 + 4 = 14 \end{array}$$

When adding two numbers together it is easier to add to a ten. Students will decompose numbers to make 10 so it is easier to add and find the answer. In the problem above the student will decompose one of the 7's in order to combine 7 and another number to make a 10.  $7 + 3 = 10$ , so if we decompose 7 into 3 and 4 we can add the 7 and 3 together to make 10 then add the remaining 4 to 10 and the answer is 14. Students will gain a better understanding that multiplying is actually repeated addition.

**Distributive Property of Multiplication** – When one of the factors of a product is a sum, multiplying each addend before adding does not change the product.

$$9 \times 7 = ?$$

We can decompose the number 9 to create two smaller multiplication problems. Below is a tape diagram that decomposes 9 into 5 and 4. The problem could be written  $(5 + 4) \times 7$ . If we use the distributive property the problem is written  $(5 \times 7) + (4 \times 7) = ?$  We distributed the 7 to both the 5 and the 4. Now we can multiply two smaller problems and add them together to get the answer.

$$\begin{array}{r} 5 \times 7 \quad | \quad 4 \times 7 \\ \hline 7 \quad 7 \quad 7 \quad 7 \quad 7 \quad 7 \quad 7 \quad 7 \\ \hline 9 \times 7 = \\ (5 \times 7) + (4 \times 7) = \\ 35 + 28 = 63 \\ 9 \times 7 = 63 \end{array}$$

Using **number bonds** to apply the distributive property.

$$\begin{array}{c} 48 \div 6 \\ \swarrow \quad \searrow \\ 30 \div 6 \quad 18 \div 6 \end{array} \quad \begin{array}{r} 48 \div 6 = (30 \div 6) + (18 \div 6) \\ = 5 + 3 \\ = 8 \end{array}$$