## $3^{\text {rd }}$ 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 B.

Topic B. Division as an Unknown Factor Problem

## Vocabulary Words

- Multiplication
- Quotient
- Unknown
- Division


## Things to Remember!!!

When we multiply we want to find the total. When we divide we start with the total and want to find either the number of groups or the size of the group.

There are 20 marbles and 5 children sharing the marbles. The total number of marbles and the number of children that is sharing the marbles is what you know. The unknown in this situation is how many marbles per child.
You can think $20 \div 5$ or 5 x ? $=20$.

$$
20 \div 5=4
$$

4 is the quotient in this problem.

$$
5 \times 4=20
$$

4 is the unknown factor in this problem.

## Objective of Topic B

1 Understand the meaning of the unknown as the size of the group in division.
2 Understand the meaning of the unknown as the number of groups in division.

3 Interpret the unknown in division using the array model.

## Focus Area- Topic B

Division as an Unknown Factor Problem

Students will be introduced to division. They will see multiplication as a way to find the total and division as a way to find out how many groups or the size of each group.

Tony puts 20 baseballs into bags. He divided them equally between 5 tables. Draw the baseballs on each table. (Students will need to draw what is stated in the word problem)


There are 4 baseballs on each table.
$20 \div$ $\qquad$ $=$ $\qquad$

Tracy puts 20 baseballs into bags. Each bag holds 5 balls. Circle the groups of 5 to show the balls in each bag.


Tracy needs $\underline{4}$ bags.
$\underline{4} \times 5=20$
$20 \div 5=4$
The numbers in the blank represent the number of groups.

Tracy uses 20 baseballs to make 4 equal groups. Draw to show how many baseballs are in each group.


There are 5 baseballs in each group.
$4 \times \underline{5}=20 \quad 20 \div 4=\underline{5}$
The numbers in the blank represent the number in each group.

Use an array to model.

