

Unit 3

Family Letter

Reveal
MATH[®]

Dear Family,

In this unit, Multiplication and Division, your child will learn how to draw and use representations, such as equal groups and arrays, to solve multiplication and division problems.

STEM Career Kid for this Unit

Hi, I'm Finn.

I want to be a construction manager. I use math in my job when I coordinate workers and projects on construction jobs. I'll show students how I use multiplication and division in my work.



What math terms will your child use?

Term	Student Understanding
factor	a number that is multiplied by another number to obtain a product; For example, in the equation $2 \times 4 = 8$, the numbers 2 and 4 are factors.
product	the result of multiplying two or more numbers; For example, in the equation $2 \times 4 = 8$, the number 8 is the product.
quotient	the result of dividing one number by another; For example, in the equation $8 \div 2 = 4$, the number 4 is the quotient.



What can your child do at home?

Help your child develop fluency with multiplication and division strategies. Write the numbers 1 through 10 on index cards and shuffle them. Have your child pick two cards and write four related multiplication and division equations involving the two numbers drawn.

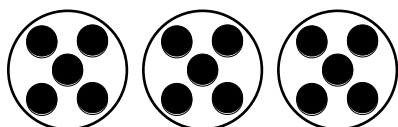
What Will Students Learn in This Unit?

Multiplication

Your child will learn to multiply numbers using equal groups and arrays. To find the total number of objects in a collection of equal groups, multiply the number of objects in each group by the number of groups. To find the total number of objects in an array, multiply the number of columns by the number of rows.

Examples:

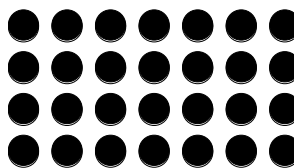
Equal Groups



3 equal groups of 5

$$3 \times 5 = 15$$

Array



4 rows by 7 columns

$$4 \times 7 = 28$$

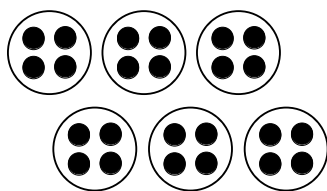
Division

Your child will learn to divide using equal sharing and equal grouping. Equal sharing is used when a number of objects is shared equally among a certain number of people or positions. Equal grouping is used when a number of objects is divided into equal groups of a certain size.

Examples:

Equal Sharing

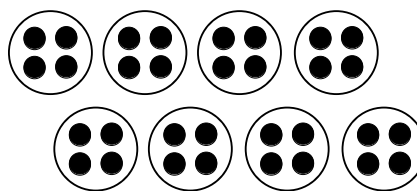
24 crackers are evenly shared among 6 students.



Each student gets 4 crackers.

Equal Grouping

32 students are divided into groups of 4.



There are 8 equal groups.

The Relationship Between Multiplication and Division

Your child will learn how multiplication and division are related. For each array, two multiplication equations and two division equations can be written. For example, the related equations below can be written using the array shown.

$$3 \times 5 = 15$$

$$15 \div 3 = 5$$

$$5 \times 3 = 15$$

$$15 \div 5 = 3$$

