Unit 7

Family Letter

Florida Reveal MATH®

Dear Family,

In this unit, Division Strategies with Multi-Digit Dividends and 1-Digit Divisors, your child will estimate quotients, use partial quotients to divide 2-digit and multi-digit dividends, interpret remainders, and solve complex problems involving division.

STEM Career Kid for this Unit

Hi, I'm Finn.

I want to be a construction manager. I will use math in my job when I supervise construction projects. I'll show students how I will use division strategies when I equally divide supplies among workers.

What math terms will your child use?

Term	Student Understanding
partial quotient	Numbers that represent a portion of the quotient of two numbers; add partial quotients to find the quotient
range	a lower and upper limit of possible solutions
remainder	a number "left over" after dividing

Math @ Home Activity

What can your child do at home?

Have your child use division to split collections of objects around your home into equal groups. Each dividend (number of items being split) should be a 2-, 3-, or 4-digit number. For example, ask your child to divide 144 beads into 6 equal groups.

What Will Students Learn in This Unit?

Using the Relationship Between Multiplication and Division

Your child will learn how to use basic multiplication facts and place value to understand division.

Example:

How can you divide 2,800 by 4?

$$4 \times 7 = 28$$

$$28 \div 4 = 7$$

$$2{,}800 \div 4 = 700$$

Estimating Quotients

Your child will use compatible numbers to estimate quotients. Estimating quotients is useful for checking work and when exact quotients are not needed. For example, the quotient of 4,823 ÷ 7 can be estimated using 4,900 ÷ 7 based on the basic fact 49 ÷ 7 = 7. Since 4,900 ÷ 7 = 700, the estimated quotient of 4,823 ÷ 7 is 700.

Partial Quotients

Your child will use partial quotients to divide 2-, 3-, and 4-digit dividends. This strategy involves finding a partial answer (called a partial quotient) repeatedly until the dividend is 0 or the remainder is less than the divisor. Then the partial quotients are added to find the final quotient.

Example:

$72 \div 3 = 24$

$$\begin{array}{rl} 72 & \\ -60 & (3 \times \mathbf{20}) \\ \hline 12 & \\ -12 & (3 \times \mathbf{4}) \\ \hline 0 & 24 \end{array}$$

Partial quotients

Final quotient

Remainders

Your child will learn how to find and interpret remainders and represent remainders as fractional parts of the divisor. When splitting objects into equal groups, a remainder indicates that there are objects left over. A remainder can be interpreted in different ways based on the context of the problem. Sometimes a remainder means that another group is necessary. For example, if packing 51 objects into boxes that hold 6 items each, 9 boxes are required. The division problem is 51 ÷ 6 = 8 remainder 3, or $8\frac{3}{6}$. So, 8 boxes will be full and one box will have 3 items.