Name Date Time

STUDY LINK 3•11

Unit 4: Family Letter

Division

Unit 4 begins with a review of division facts and the relationship between division and multiplication. Emphasis is on fact families. A person who knows that $4 * 5 = 20$ also knows the related facts $5 * 4 = 20$, $20 \div 4 = 5$, and $20 \div 5 = 4$.

We will develop strategies for dividing mentally. Challenge your child to a game of *Division Dash* to help him or her practice. You'll find the rules in the *Student Reference Book*, page 303.

These notations for division are equivalent:	
$12\overline{)246}$	$246 \div 12$
$246 / 12$	$\frac{246}{12}$

In *Fourth Grade Everyday Mathematics*, students were introduced to a method of long division called the partial-quotients division algorithm. This algorithm is easier to learn and apply than the traditional long-division method. It relies on "easy" multiplication, and it can be quickly employed by students who struggle with traditional computation.

In this method, a series of partial answers (partial quotients) are obtained, and then added to get the final answer (the quotient). After your child has worked with this method, you might ask him or her to explain the example below:

$$\begin{array}{r|l} 12\overline{)158} & \\ -\ 120 & 10 \\ \hline 38 & \\ -\ 36 & 3 \\ \hline 2 & 13 \end{array}$$

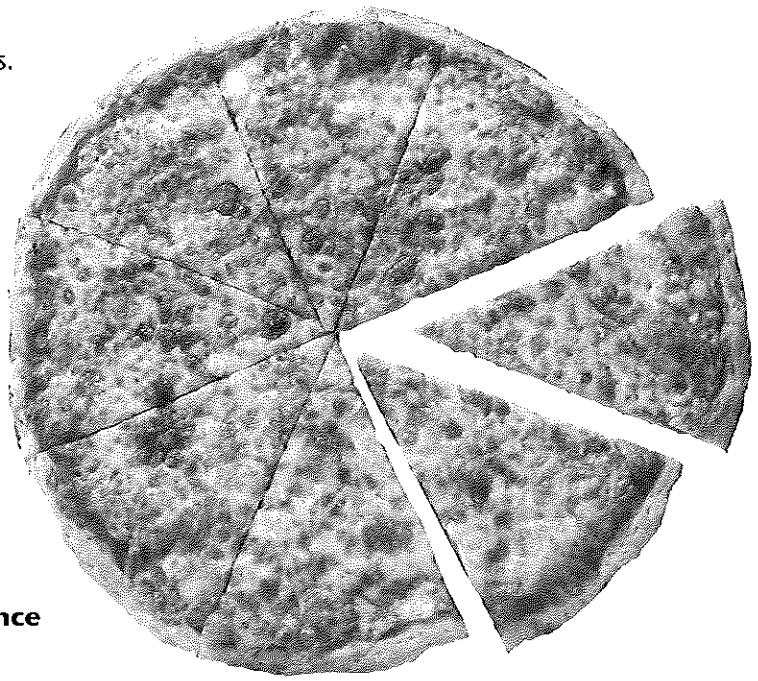
↑ Remainder ↑ Quotient

In the coming unit, we will review the partial-quotients algorithm and extend it to decimals.

Your child will practice using this division algorithm, as well as others, if he or she chooses. The partial-quotients division algorithm and another method called column division are described in the *Student Reference Book*.

When we solve division number stories, special attention will be placed on interpreting the remainder in division.

The American Tour will continue as the class measures distances on maps and uses map scales to convert the map distances to real-world distances between cities, lengths of rivers, and so on.



Please keep this Family Letter for reference as your child works through Unit 4.