Fifth Grade Mathematics Newsletter

Marking Period 2, Part 1

MT	Learning Goals by Measurement Topic (MT) Students will be able to . . .
Number and Operations in Base Ten	• use equations (number sentences with an equal sign), rectangular arrays, or area models to divide a 4-digit number by a 2-digit number. • use strategies based on place value, properties of operations, and the relationship between multiplication and division to estimate for solving division problems. • reason about the relationships among dividends, divisors, and quotients. *Examples:* $25 \div 5 = 5$ (quotient; dividend; divisor) and $6\overline{)42}$ = 7 (quotient; divisor; dividend) • solve problems involving four operations (+, -, ×, ÷).

Thinking and Academic Success Skills (TASS)		
	It is . . .	In mathematics, students will…
Synthesis	putting parts together to build understanding of a whole concept or to form a new or unique whole.	• integrate ideas, information, and theories to invent or devise a solution to a division problem. • understand how place value concepts relate to properties of operations. • put together ideas about the relationships among dividends, divisors, and quotients to help solve problems.
Metacognition	knowing and being aware of one's own thinking and having the ability to monitor and evaluate one's own thinking.	• self-monitor strategies to assess progress and apply new thinking. • identify efficient strategies for multiplying and dividing multi-digit whole numbers. • reflect on understanding of place value and basic facts knowledge by modeling division using area drawings. • make connections between equations and area models to solve division problems. • seek clarification to develop and refine strategies for determining quotients accurately and efficiently.

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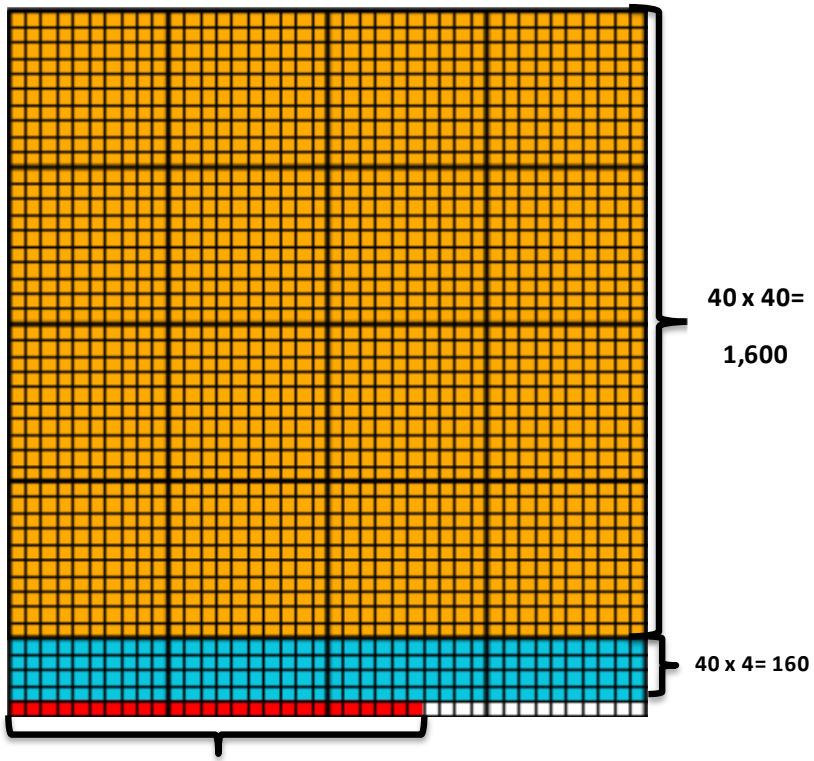
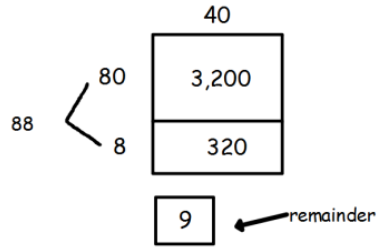
Learning Experiences by Measurement Topic (MT)

MT	In school, your child will . . .	At home, your child can . . .
Number and Operations in Base Ten	• use area models and equations to solve a multi-digit division problem (4-digit number by 2-digit number). Example: Use a ten-thousand grid to solve $1,786 \div 40 = 44\frac{26}{40}$  *Note:* This is a portion of a ten-thousand grid	• practice solving multiplication and division problems using mental math to develop skills to solve more difficult problems. Example: 4 x 8 = 32 40 x 80 = 3,200 3,200 ÷ 40 = 80 Possible question to support metacognition: How does knowing 4 x 8 help to solve 3,200 ÷ 40? • estimate the quotient using knowledge of place value. Websites to support learning (about division using estimation): http://illuminations.nctm.org/ActivityDetail.aspx?ID=224 • estimate and solve 4-digit by 2-digit division problems using an area model to show the relationship between multiplication and division. Example: There are 3529 seats in a stadium. There are 40 sections. How seats are in each section? Area Model Drawing for Division $3,529 \div 40 = 88\ R\ 9$ $3,529 \div 40 = 88\frac{9}{40}$  Websites to support learning (about area models): http://learnzillion.com/lessons/552-divide-4digit-dividends-by-2digit-divisors-by-using-an-area-model

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