

# Fifth Grade Mathematics Newsletter

Marking Period 2, Part 1



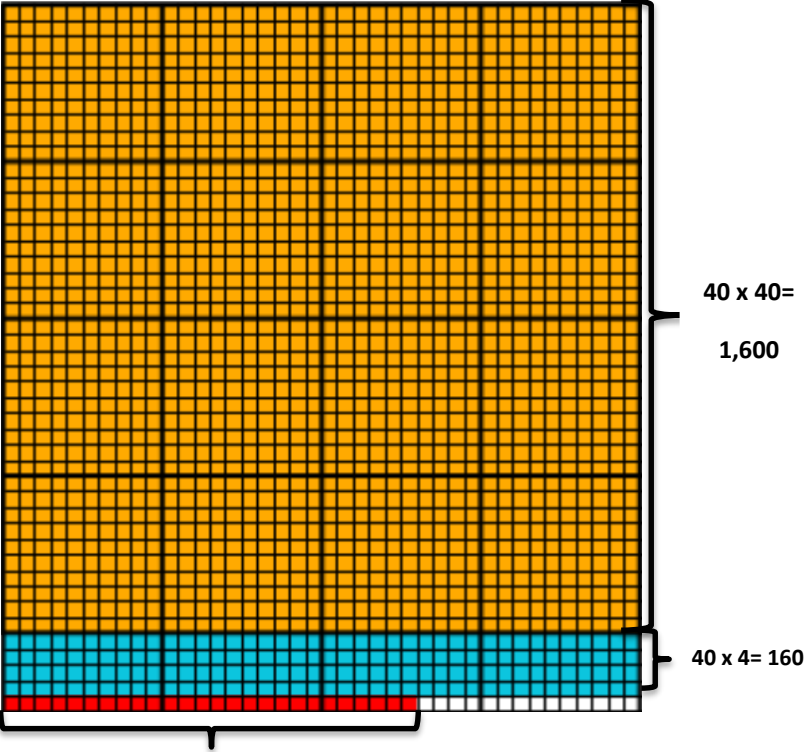
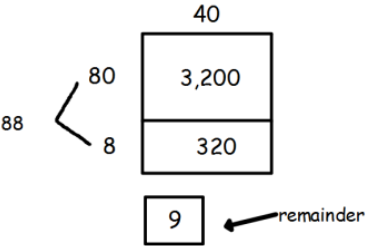
MT	<b>Learning Goals by Measurement Topic (MT)</b> <u>Students will be able to . . .</u>
<b>Number and Operations in Base Ten</b>	<ul style="list-style-type: none"> <li>use equations ( number sentences with an equal sign), rectangular arrays, or area models to divide a 4-digit number by a 2-digit number.</li> <li>use strategies based on place value, properties of operations, and the relationship between multiplication and division to estimate for solving division problems.</li> <li>reason about the relationships among dividends, divisors, and quotients.</li> </ul> <p><i>Examples:</i></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <math>25 \div 5 = 5</math>              ↑                      ↑                      ↖              dividend          divisor              quotient         </div> <div style="text-align: center;"> <math display="block">\begin{array}{r} 7 \\ 6 \overline{)42} \end{array}</math>              ↖                      ↖                      ↖              divisor              dividend              quotient         </div> </div> <ul style="list-style-type: none"> <li>solve problems involving four operations (+, -, ×, ÷).</li> </ul>

<b>Thinking and Academic Success Skills (TASS)</b>		
	<u>It is . . .</u>	<u>In mathematics, students will...</u>
<b>Synthesis</b>	putting parts together to build understanding of a whole concept or to form a new or unique whole.	<ul style="list-style-type: none"> <li>integrate ideas, information, and theories to invent or devise a solution to a division problem.</li> <li>understand how place value concepts relate to properties of operations.</li> <li>put together ideas about the relationships among dividends, divisors, and quotients to help solve problems.</li> </ul>
<b>Metacognition</b>	knowing and being aware of one's own thinking and having the ability to monitor and evaluate one's own thinking.	<ul style="list-style-type: none"> <li>self-monitor strategies to assess progress and apply new thinking.</li> <li>identify efficient strategies for multiplying and dividing multi-digit whole numbers.</li> <li>reflect on understanding of place value and basic facts knowledge by modeling division using area drawings.</li> <li>make connections between equations and area models to solve division problems.</li> <li>seek clarification to develop and refine strategies for determining quotients accurately and efficiently.</li> </ul>

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## Learning Experiences by Measurement Topic (MT)

MT	 <u>In school, your child will . . .</u>	 <u>At home, your child can . . .</u>
<b>Number and Operations in Base Ten</b>	<ul style="list-style-type: none"> <li>use area models and equations to solve a multi-digit division problem (4-digit number by 2-digit number).</li> </ul> <p><u>Example:</u> Use a ten-thousand grid to solve <math>1,786 \div 40 = 44 \frac{26}{40}</math></p>  <p style="text-align: center;">Remainder 26</p> <p><i>Note:</i> This is a portion of a ten-thousand grid</p>	<ul style="list-style-type: none"> <li>practice solving multiplication and division problems using mental math to develop skills to solve more difficult problems.</li> </ul> <p><u>Example:</u> <math>4 \times 8 = 32</math>  <math>40 \times 80 = 3,200</math>  <math>3,200 \div 40 = 80</math></p> <p><u>Possible question to support metacognition:</u> How does knowing <math>4 \times 8</math> help to solve <math>3,200 \div 40</math>? <li>estimate the quotient using knowledge of place value.</li> <p><u>Websites to support learning (about division using estimation):</u>  <a href="http://illuminations.nctm.org/ActivityDetail.aspx?ID=224">http://illuminations.nctm.org/ActivityDetail.aspx?ID=224</a></p> <ul style="list-style-type: none"> <li>estimate and solve 4-digit by 2-digit division problems using an area model to show the relationship between multiplication and division.</li> </ul> <p><u>Example:</u> There are 3529 seats in a stadium. There are 40 sections. How seats are in each section?</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>Area Model Drawing for Division</p> <math display="block">3,529 \div 40 = 88 \text{ R } 9</math> <math display="block">3,529 \div 40 = 88 \frac{9}{40}</math> </div>  </div> <p><u>Websites to support learning (about area models):</u>  <a href="http://learnzillion.com/lessons/552-divide-4digit-dividends-by-2digit-divisors-by-using-an-area-model">http://learnzillion.com/lessons/552-divide-4digit-dividends-by-2digit-divisors-by-using-an-area-model</a></p> </p>

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