

Lattice Multiplication

Teacher: Samantha Green (Mrs. Khalil)

Unit Name: Multiplication

Lesson Title: Lattice Multiplication

Grade Level: 4th Grade

Time Frame: 40 minutes – 1 hour

Standards	Objective(s)	Assessment
<p>CCSS Math 4.NBT.B.5: Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>	<p>The students will be apply prior knowledge of multiplication of a whole number up to four digits times a one-digit number using an array model.</p> <p>The students will use the array model to multiply two two-digit numbers.</p>	<p>The students will complete multiplication of two digit whole numbers by one digit whole numbers using the lattice method.</p> <p>The students will individually complete a worksheet applying the lattice method to multiple two two-digit numbers.</p>
<p>Materials and Resources: Lattice Method Flipchart Promethean Board 2 by 1 laminated Lattice Method (one for each student) **see attachment 2 by 2 Lattice Method worksheet (one for each student) **see attachment Dry Erase Markers/Erasers (one fore each student) Students' Math Journals Pencils</p>		
Lesson Introduction	<p>The teacher will begin the lesson by reviewing 2-, 3-, and 4-digit multiplication by one digit whole numbers. This will be a review for the students since they had a quiz on this material the day before.</p>	
Procedure	<ul style="list-style-type: none"> • The teacher will begin the lesson with the review of 2-, 3-, and 4-digit multiplication by one digit whole numbers. • The teacher will introduce the Lattice Method. • The teacher will use a flip chart adopted from another teacher. • The flip chart introduces the Lattice Method and the steps to complete the array. • Next, the flip chart models 2 by 1 array with examples. • The teacher will pass out the laminated 2 by 1 	

	<p>Lattice Method.</p> <ul style="list-style-type: none"> • The teacher will give the students examples to complete on their worksheet. (**see questions below) • Once students are finished, the teacher will ask for the cards to be held up for verification. • Finally, the flip chart models 2 by 2 array with examples. • The teacher will clarify any confusion and do more examples if needed for practice. • The teacher will use the Promethean Board for the flip chart and add extra pages if needed for examples.
Lesson Closure	<p>The teacher will pass out the 2 by 2 Lattice Method worksheet. The students will be instructed to work individually on the worksheet. Once they are finished they should raise their hand for the teacher to check their work. Once everyone has finished the worksheet, the teacher will explain each question for the whole class.</p>

Question for Lattice Method 2 by 1:

1. $45 \times 4 = 180$

2. $39 \times 8 = 312$

3. $78 \times 5 = 390$

4. $88 \times 9 = 792$

5. $19 \times 4 = 76$

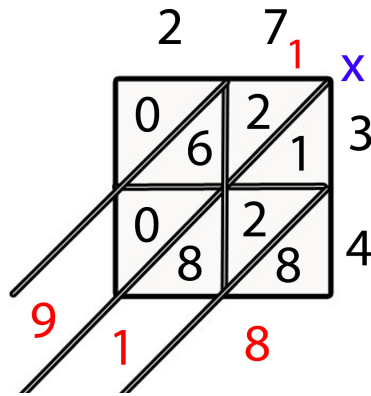
6. $56 \times 3 = 168$

Lattice Method for Multiplication

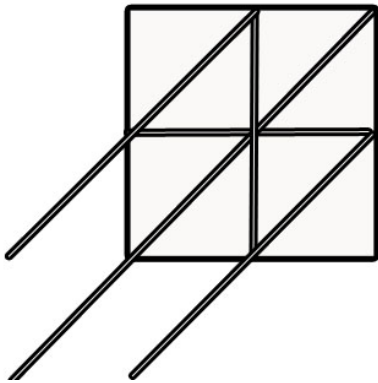
Name: _____ Date: _____

Example:

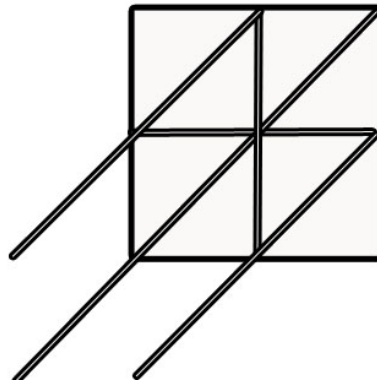
$$27 \times 34 = 918$$



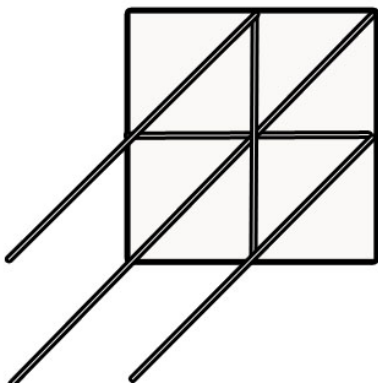
1) $78 \times 24 =$



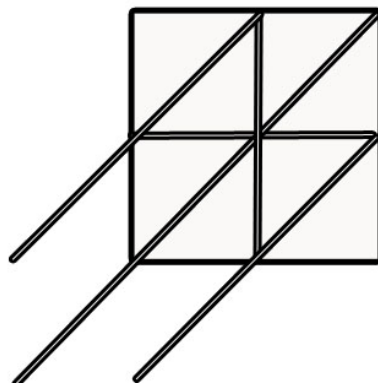
2) $36 \times 15 =$



3) $60 \times 86 =$



4) $52 \times 49 =$

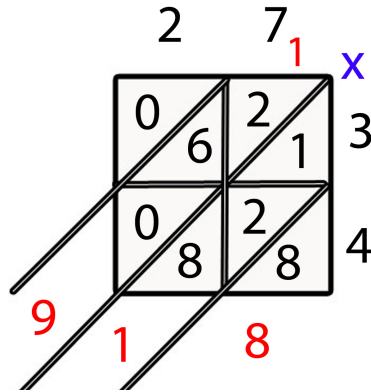


Lattice Method for Multiplication (**Answer Key**)

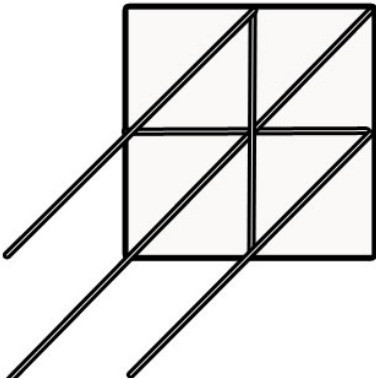
Name: _____ Date: _____

Example:

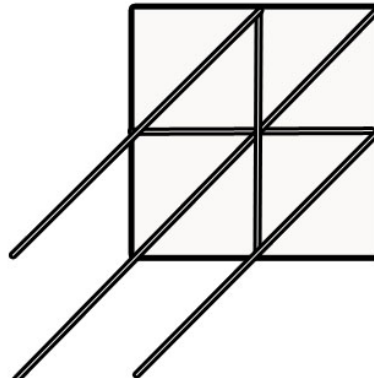
$$27 \times 34 = 918$$



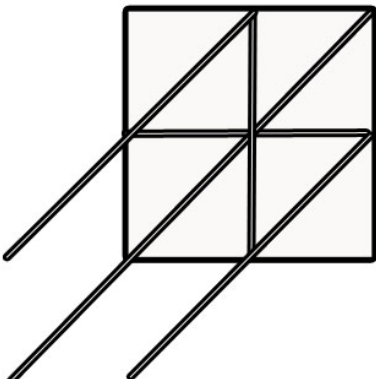
2) $78 \times 24 =$ **1872**



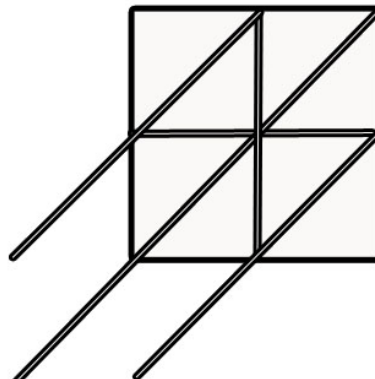
2) $36 \times 15 =$ **540**



4) $60 \times 86 =$ **5160**



4) $52 \times 49 =$ **2548**



Lattice Method 2 by 1 Laminated Sheet:

Lattice Multiplication 2 Digit by 1 Digit

