

This video supports the following **Common Core State Standards for Mathematics**

<p><b>Grade 3: Operations and Algebraic Thinking</b></p>	<p><b>Understand properties of multiplication and the relationship between multiplication and division</b>          Apply properties of operations as strategies to multiply and divide.2 Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known. (Commutative property of multiplication.) <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math>, then <math>15 \times 2 = 30</math>, or by <math>5 \times 2 = 10</math>, then <math>3 \times 10 = 30</math>. (Associative property of multiplication.) Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56</math>. (Distributive property.)</p>
<p><b>Grade 3: Measurement and Data</b></p>	<p><b>Geometric measurement: understand concepts of area and relate area to multiplication and to addition</b>          Relate area to the operations of multiplication and addition.</p> <p>Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.</p>
<p><b>Grade 4: Number and Operations in Base Ten</b></p>	<p><b>Use place value understanding and properties of operations to perform multi-digit arithmetic</b>          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><b>Grade 5: Number and Operations in Base Ten</b></p>	<p><b>Perform operations with multi-digit whole numbers and with decimals to hundredths</b>          Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<p><b>Grade 5: Number and Operations in Base Ten</b></p>	<p><b>Perform operations with multi-digit whole numbers and with decimals to hundredths</b>          Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>