

Unit	<p align="center">3rd: Unit 8- Problem Solving, Tables, and Graphs</p> <p align="center">Math Investigations Book: Stories, Tables, and Graphs</p> <p align="center">Standards for Grade 3</p> <p><u>UNIT 1</u>= Numeration, Operations, and Problem Solving <u>UNIT 2</u>= Estimation, Calculation & Problem Solving <u>UNIT 3</u>= Tables, Bar Graphs, and Pictographs <u>UNIT 4</u>= Multiplication and Division <u>UNIT 5</u>= Estimation and Measurement <u>UNIT 6</u>= Fractions and Concepts <u>UNIT 7</u>=Shapes, Area, and Perimeter <u>UNIT 8</u>= Problem Solving, Tables, and Graphs <u>UNIT 9</u>= Measurement, Line Plots, and Graphs</p>
8	<p>3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p>
8	<p>3.OA.5 Apply properties of operations as strategies to multiply and divide. <i>Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.) (Students need not use formal terms for these properties.)</i></p>
8	<p>3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p>
8	<p>3.OA.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. <i>(This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).)</i></p>
8	<p>3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</i></p>
8	<p>3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.</p>
8	<p>3.NBT.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>