

## 4<sup>th</sup> Grade Math Club 2018-2019 Curriculum

<b>Topic</b>	<b>Subtopics</b>	<b>Notes</b>
<p><i>Geometric Sense I</i> (Oct 23, 2018)</p> <p><a href="#"><i>Fun Mental math</i></a></p>	<p><a href="#">Geometry, Angles and Triangles overview</a></p> <p><a href="#">Khan Academy</a></p>	<p>Explain what an angle is, and what the unit of measurement is (degrees). Explain the properties of a triangle (sum of angles is 180). Talk about different kinds of triangles (right, isosceles, equilateral, scalene).</p> <p><a href="#">Homework</a></p> <p><a href="#">Solution</a></p>
<p><i>Number Sense I</i> (Oct 30, 2018)</p> <p><a href="#"><i>Fun Mental math</i></a></p>	<p><a href="#">GCF, LCM, Primes</a></p> <p><a href="#">Khan Academy</a></p>	<p>Prime numbers. Divisibility rules for 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. Factors, and how to factor a number. Greatest Common Factor (GCF). Multiples, and how to find the Least Common Multiple (LCM)</p> <p><a href="#">Homework</a></p> <p><a href="#">Solution</a></p>
<p><i>Number Sense II</i> (Nov 6, 2018)</p> <p><a href="#"><i>Fun Mental math</i></a></p>	<p><a href="#">Fractions, Decimals, Percentages</a></p> <p><a href="#">Khan Academy</a></p>	<p>Finding equivalent fractions, and reducing fractions to lowest terms. How to convert between fractions, decimals, and percentages. (Conversion between these different number representations is a fundamental skill that will be used throughout the rest of Math Club, so it's important to master this skill early.)</p> <p><a href="#">Homework</a></p> <p><a href="#">Solution</a></p>
<p><i>Number Sense III</i> (Nov 13 2018)</p>	<p><a href="#">Ratios and fraction arithmetic</a></p>	<p>Ratios and proportions. Equivalent ratios and comparing two ratios to see if they're equivalent. Continued ratios (more than two quantities). Improper fractions vs. proper fractions vs. mixed numbers. How to add and subtract fractions,</p>

## 4<sup>th</sup> Grade Math Club 2018-2019 Curriculum

	<a href="#">Khan Academy</a>	<p>especially with different denominators. How to multiply fractions.</p> <p><a href="#">Homework Solution</a></p>
<i>Number Sense IV (Nov 20, 2018)</i>	<a href="#">Exponents and order of operations</a>	<p>Explain what an exponent is (<math>3^4</math> is <math>3 \times 3 \times 3 \times 3</math>). Also cover the term "square number", "cube number", "square root", and "cube root". Explain the precedence order for operations, both when parentheses are present and not present (first exponents, then mult/div, then add/subtract).</p> <p><a href="#">Homework Solution</a></p>
<i>Number Sense V (Nov 27, 2018)</i>	<a href="#">Khan Academy</a> <a href="#">Conversion between units</a>	<p>Practice converting between all different kinds of units (simple whole number conversions only) -- days/weeks, inches/feet, meters/kilometers, pounds/ounces, etc.</p> <p><a href="#">Homework Solution</a></p>
<i>Geometric sense 1 (Dec 4, 2018)</i>	<a href="#">Khan Academy</a> <a href="#">Area &amp; Perimeter</a>	<p>Explain what an angle is, and what the unit of measurement is (degrees). Explain the properties of a triangle (sum of angles is 180). Talk about different kinds of triangles (right, isosceles, equilateral, scalene). 5th graders: Review previous geometry topics, such as perimeter and area of circles, and area of triangles.</p> <p><a href="#">Homework Solution</a></p>
<i>Algebra I</i>	<a href="#">Khan Academy</a> <a href="#">Expressions and single variable equations</a>	<p>Explain what a variable is, and how to write an expression using a variable. Explain that <math>6x</math> is shorthand for (6 times <math>x</math>). 5th graders: Expressions involving inequalities, and the transitive property (if <math>a &gt; b</math> and <math>b &gt; c</math>, then <math>a &gt; c</math>).</p>

## 4<sup>th</sup> Grade Math Club 2018-2019 Curriculum

		<a href="#">Homework Solution</a>
<i>Algebra II</i>	<a href="#">Khan Academy Two variable equations</a>  <a href="#">Khan Academy</a>	Explain how to write an equation containing a single variable, and solve using algebraic techniques. This is very hard for 4th graders, but expose them to it anyway. 5th graders: Two-variable equations (two equations and two unknowns). <a href="#">Homework Solution</a>