

# Maine Grade Level Expectations Correlated to Merit Software Math Programs.

## Cluster 1. Numbers and Operation

Content Standard A: Number and Number Sense: Students will understand and demonstrate a sense of what numbers mean and how they are used. Students will be able to:

Grade Level	Expectation	Merit Software
<b>Grade 4</b>	M1A2.4 Read, compare, order, classify, and explain simple fractions through tenths.	Fraction Shape-Up
<b>Grade 5</b>	M1A1.5 Compare, order, use, and represent simple fractions (halves, fourths, fifths, and tenths with all numerators) and decimals to hundredths.	Fraction Shape-Up

Content Standard B: Computation: Students will understand and demonstrate computation skills. Students will be able to:

Grade Level	Expectation	Merit Software
<b>Grade 4</b>	M1B2.4 Solve real-life problems involving addition and subtraction of simple fractions.	Fraction Shape-Up
<b>Grade 5</b>	M1B1.5 Compute and model all four operations on whole numbers (1-digit divisor, 3-digit dividend) and addition and subtraction with simple fractions with common denominators and decimals to hundredths and do straight computation with these numbers and operations.	Fraction Shape-Up Pre-Algebra Shape-Up

## Cluster 1. Numbers and Operation

Content Standard A: Number and Number Sense: Students will understand and demonstrate a sense of what numbers mean and how they are used. Students will be able to:

Grade Level	Expectation	Merit Software
<b>Grade 6</b>	<p>M1A1.6 Compare, order, use and represent fractions, (halves, thirds, fourths, fifths, sixths, eighths and tenths with all numerators); and compare, order, use and represent decimals to thousandths and convert between decimals and percentages.</p> <p>M1A3.6 Recognize and apply concepts of prime and composite numbers and use divisibility rules for 2, 3, 4, 5, 6, 9 and 10; and recognize and find factors and multiples of natural numbers.</p>	<p>Pre-Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p>
<b>Grade 7</b>	<p>M1A1.7 Compare, order, use, and represent fractions, decimals, and percents and convert among different numeral forms (limited to terminating decimals for decimal to fraction conversion) and apply concepts of integers, absolute value and positive exponents.</p> <p>M1A3.7 Apply concepts of ratios in practical or other mathematical situations.</p>	<p>Pre-Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p>
<b>Grade 8</b>	<p>M1A1.8 Use numbers in a variety of equivalent and interchangeable forms (e.g., integer, fraction, decimal, percent, exponential, and scientific notation) in problem-solving.</p> <p>M1A3.8 Apply concepts of ratios, proportions, percents, and number theory (e.g. primes, factors, and multiples) in practical and other mathematical situations.</p>	<p>Pre-Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p>

Content Standard B: Computation: Students will understand and demonstrate computation skills. Students will be able to:

<b>Grade Level</b>	<b>Expectation</b>	<b>Merit Software</b>
<b>Grade 6</b>	<p>M1B1.6 Compute and model all four operations with whole numbers, common fractions and decimals to thousandths, and do straight computation with these numbers and operations. Division limited to 2-digit whole number divisors and 3-digit dividends.</p> <p>M1B2.6 Create, solve, and justify the solution for multi-step, real-life problems with whole numbers, common fractions and decimals to thousandths, with division limited to 2-digit whole number divisors and 3-digit dividends.</p>	<p>Pre-Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p>
<b>Grade 7</b>	<p>M1B1.7 Compute and model all four operations with whole numbers, fractions (including mixed numerals), decimals, and percents applying order of operations and do straight computation with these numbers and operations.</p> <p>M1B2.7 Create, solve, and justify the solution for multi-step, real-life problems with whole numbers, fractions (including mixed numerals), decimals, and percents.</p>	<p>Pre-Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p>
<b>Grade 8</b>	<p>M1B1.8 Compute and model all four operations with whole numbers, fractions, decimals, sets of numbers, and percents, applying the proper order of operations.</p> <p>M1B2.8 Create, solve, and justify the solution for multi-step, real-life problems including those with ratio and proportion.</p>	<p>Pre-Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p>

#### Cluster 4. Patterns

Content Standard H: Algebra Concepts: Students will understand and apply algebraic concepts.

Students will be able to:

<b>Grade Level</b>	<b>Expectations</b>	<b>Merit Software</b>
<b>Grade 6</b>	M4H6.6 Solve one-step equations using whole numbers with all four operations.	Pre-Algebra Shape-Up Basic Algebra Shape-Up
<b>Grade 7</b>	M4H6.7 Solve two-step equations using integers and positive rational numbers.	Pre-Algebra Shape-Up Basic Algebra Shape-Up
<b>Grade 8</b>	M4H3.8 Analyze tables and graphs to identify properties and relationships in a practical context.  M4H6.8 Find solutions for unknown quantities in linear equations and in simple equations and inequalities.	Pre-Algebra Shape-Up Basic Algebra Shape-Up