

**Hawaii State Standards
correlated to
Merit Software Math Programs**

The Language Arts Content Standards (1999) emphasize reading, writing, oral communication, and the study of literature and language from the earliest grades to graduation. They establish a foundation upon which to develop an effective literacy program. They provide direction for curriculum and require the best teaching practices to achieve them. They are, however, not an end but a beginning—a starting point for discussion about curriculum, instruction, and assessment that helps all students achieve the standards.

Merit’s Math programs address the following Hawaii State Standards:

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Grade 3

Subhead	Standard	Benchmark	Merit Software
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Represent and use whole numbers up to one hundred and commonly-used fractions with denominators no larger than ten. 	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Recognize and use equivalent forms of common fractions; and compare commonly-used fractions with denominators no larger than ten. 	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3

Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Compare, order, estimate, group (e.g., even and odd), and count whole numbers up to one thousand. 	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Extend place value to recognize and use one hundred as a unit and one-tenth as a unit. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Use the properties of addition of whole numbers (associativity, commutativity, and zero as an addend). 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Explain that subtraction of whole numbers is neither associative nor commutative. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Write number sentences for situations involving addition, subtraction, multiplication, or division. 	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> • Extend fluency with single-digit addition facts to include single-digit subtraction and multiplication facts; and fluently add, subtract, and multiply with multiples of ten. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> • Recognize whether numerical solutions are reasonable, and estimate quantities. 	Word Problem Shape-Up Sets 1, 2, 3

Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> • Develop referents for estimation (e.g., width of little finger is about 1 cm.). 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> • Estimate and measure area, weight, and volume with non-standard units. 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> • Estimate and measure length, time, and temperature using standard units. 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> • Describe and identify area, volume, and money. 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> • Create and describe spatial and numerical patterns. 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> • State a general rule that describes a given pattern (e.g., add four) 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> • Represent the same pattern in different forms (e.g., aab; red, red, blue). 	Word Problem Shape-Up Sets 1, 2, 3

Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> • Use concrete, pictorial, and verbal representations of numerical situations. 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> • Symbolize mathematical situations. 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> • Quantify comparisons and describe change in familiar situations (e.g., measuring temperature and height changes). 	Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> • Pose questions, and collect and organize data. 	Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> • Represent data with bar graphs and with pictures. 	Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> • Use graph of organized data to build possible data sets. 	Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> • Give information about a data set, build possible representations (e.g., “In this package red is most and there are more blue than green. What could the graph look like?”). 	Word Problem Shape-Up Sets 1, 2, 3

Data Analysis, Statistics, and Probability	Standard 13: DATA ANALYSIS, STATISTICS, AND PROBABILITY: DATA ANALYSIS—Develop and evaluate inferences, predictions, and arguments that are based on data.	• Answer questions and make predictions based on representations of data.	Word Problem Shape-Up Sets 1, 2, 3
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Grade 4

Subhead	Standard	Benchmark	Merit Software
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	• Represent and use whole numbers, fractions, ratios, decimals, and percents in equivalent forms to solve problems.	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	• Recognize and use primes, factors, multiples, fractions, decimals, whole number percents, and ratios.	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	• Compare and order whole numbers, fractions, decimals and percents.	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	• Relate fractions to decimals, decimals to percents, and fractions to percents and convert among them.	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	• Extend place value concepts to recognize and use numbers smaller than tenths and larger than thousands.	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	• Represent multiplication and division in various ways (e.g., multiplication as repeated addition, Cartesian product, area, and array).	Word Problem Shape-Up Sets 1, 2, 3

Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> Use associative, commutative, and distributive properties as they apply to multiplication and division of whole numbers. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> Describe situations involving addition, subtraction, multiplication, and division of fractions. 	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Develop and use strategies, including mental arithmetic strategies, and invent algorithms to find products and quotients. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Develop algorithms for fraction operations. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Choose appropriate computational procedures and tools to solve problems. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Recall all single-digit multiplication facts and their related division facts. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Use estimation to solve problems and determine reasonableness of results, and decide when it is more appropriate to estimate than to compute. 	Word Problem Shape-Up Sets 1, 2, 3

Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Carry out simple unit conversions within a system of measurements (e.g., millimeters to centimeters to meters, feet to yards, pints to quarts to gallons, seconds to minutes to hours, days to weeks to months to years). 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Use estimation and measurement to find perimeter, area, surface area, volume, weight and mass. 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Know and fluently use the common units of measure of both customary and metric systems of measure. 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Select and apply appropriate standard units and tools to estimate and measure. 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Develop and use formulas to find perimeter, area (squares, rectangles, and triangles), and surface area and volume of rectangular solids. 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> Create, describe, analyze, and extend numeric and geometric patterns (e.g., growing and shrinking patterns and square numbers). 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> Use generalizations to make predictions; check that the generalization fits the pattern. 	Word Problem Shape-Up Sets 1, 2, 3

Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	• Represent unknown quantities and relationships among them with symbols.	Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	• Systematically collect and organize data (e.g., using tables, line graphs, or pie charts).	Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	• Describe the shape and important features of a set of organized data (e.g., range, mean, mode, median) where appropriate.	Word Problem Shape-Up Sets 1, 2, 3; Pre-Algebra Shape-Up
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	• Compare related data sets.	Word Problem Shape-Up Sets 1, 2, 3; Pre-Algebra Shape-Up
Data Analysis, Statistics, and Probability	Standard 13: DATA ANALYSIS, STATISTICS, AND PROBABILITY: DATA ANALYSIS—Develop and evaluate inferences, predictions, and arguments that are based on data.	• Describe how data collection methods can impact the nature of the data set.	Word Problem Shape-Up Sets 1, 2, 3

Grade 5

Subhead	Standard	Benchmark	Merit Software
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	• Represent and use whole numbers, fractions, ratios, decimals, and percents in equivalent forms to solve problems.	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	• Recognize and use primes, factors, multiples, fractions, decimals, whole number percents, and ratios.	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3

Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Compare and order whole numbers, fractions, decimals and percents. 	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Relate fractions to decimals, decimals to percents, and fractions to percents and convert among them. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Extend place value concepts to recognize and use numbers smaller than tenths and larger than thousands. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Represent multiplication and division in various ways (e.g., multiplication as repeated addition, Cartesian product, area, and array). 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Use associative, commutative, and distributive properties as they apply to multiplication and division of whole numbers. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Describe situations involving addition, subtraction, multiplication, and division of fractions. 	Fraction Shape-Up; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> • Develop and use strategies, including mental arithmetic strategies, and invent algorithms to find products and quotients. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> • Develop algorithms for fraction operations. 	Word Problem Shape-Up Sets 1, 2, 3

Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Choose appropriate computational procedures and tools to solve problems. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Recall all single-digit multiplication facts and their related division facts. 	Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Use estimation to solve problems and determine reasonableness of results, and decide when it is more appropriate to estimate than to compute. 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Carry out simple unit conversions within a system of measurements (e.g., millimeters to centimeters to meters, feet to yards, pints to quarts to gallons, seconds to minutes to hours, days to weeks to months to years). 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Use estimation and measurement to find perimeter, area, surface area, volume, weight and mass. 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Know and fluently use the common units of measure of both customary and metric systems of measure. 	Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Select and apply appropriate standard units and tools to estimate and measure. 	Word Problem Shape-Up Sets 1, 2, 3

Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Develop and use formulas to find perimeter, area (squares, rectangles, and triangles), and surface area and volume of rectangular solids. 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> Create, describe, analyze, and extend numeric and geometric patterns (e.g., growing and shrinking patterns and square numbers). 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> Use generalizations to make predictions; check that the generalization fits the pattern. 	Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> Represent unknown quantities and relationships among them with symbols. 	Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> Systematically collect and organize data (e.g., using tables, line graphs, or pie charts). 	Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Describe the shape and important features of a set of organized data (e.g., range, mean, mode, median) where appropriate. 	Word Problem Shape-Up Sets 1, 2, 3; Pre-Algebra Shape-Up
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Compare related data sets. 	Word Problem Shape-Up Sets 1, 2, 3; Pre-Algebra Shape-Up

Data Analysis, Statistics, and Probability	Standard 13: DATA ANALYSIS, STATISTICS, AND PROBABILITY: DATA ANALYSIS—Develop and evaluate inferences, predictions, and arguments that are based on data.	<ul style="list-style-type: none"> Describe how data collection methods can impact the nature of the data set. 	Word Problem Shape-Up Sets 1, 2, 3
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Grade 6

Subhead	Standard	Benchmark	Merit Software
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> Recognize and use signed numbers (e.g., order and compare integers and rational), proportions, and percents (e.g., use 15.1% or $4\frac{2}{3}\%$). 	Pre-Algebra Shape - Up
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> Explain and apply number theory concepts (e.g., triangular and square numbers, prime and composite numbers, factors and multiples). 	Pre-Algebra Shape - Up
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> Represent and use exponents, absolute values, scientific notation, and square and cube roots. 	Pre-Algebra Shape - Up
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> Describe situations when addition, subtraction, multiplication, and division of integers, rationals, and numbers involving whole number non-negative exponents are appropriate. 	Pre-Algebra Shape - Up
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> Recognize and use properties (closure, associative, commutative, distributive, identity and inverse) and order of operations on rational numbers. 	Pre-Algebra Shape - Up

Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> Understand and use inverse relationships among and within operations of addition and subtraction, multiplication and division, and squares and square roots. 	Pre-Algebra Shape - Up
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Select and use appropriate strategies for computing with rationals, ratios, exponents, and square roots. 	Pre-Algebra Shape - Up
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Use estimation as a means to check for reasonableness of results and form upper and lower bounds. 	Pre-Algebra Shape – Up; Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Select appropriate units to estimate and measure angles, circumferences and areas of a circle, and surface area and volume of regular solids. 	Pre-Algebra Shape – Up
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Estimate and measure angles in plane figures. 	Pre-Algebra Shape – Up
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Develop and use formulas to find surface area and volumes of regular solids. 	Pre-Algebra Shape – Up
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Select appropriately precise tools to achieve a desired accuracy in measurement. 	Pre-Algebra Shape – Up

Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	• Use ratios and proportions to solve problems related to measurement.	Pre-Algebra Shape – Up; Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	• Solve simple problems involving rates and other derived measures (e.g., miles per hour, gms per cc or cm ³).	Pre-Algebra Shape – Up; Word Problem Shape-Up Sets 1, 2, 3
Geometry	Standard 5: GEOMETRY AND SPATIAL SENSE: PROPERTIES AND RELATIONSHIPS—Analyze properties of objects and relationships among the properties.	• Critique logical arguments concerning geometric ideas and relationships.	Pre-Algebra Shape – Up
Geometry	Standard 7: GEOMETRY AND SPATIAL SENSE: VISUAL AND SPATIAL SENSE—Use visualization and spatial reasoning to solve problems both within and outside of mathematics.	• Compose and decompose two- and three-dimensional figures in order to solve problems and develop formulas (e.g., $(a + b)^2 = a^2 + 2ab + b^2$).	Pre-Algebra Shape – Up
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	• Analyze, create, and generalize numeric and visual patterns including patterns that have a recursive nature (e.g., Pascal’s triangle, Fibonacci numbers, powers of rational numbers).	Pre-Algebra Shape – Up
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	• Represent and translate among a variety of patterns, relations and functions with tables, graphs, verbal rules, and symbolic rules.	Pre-Algebra Shape – Up; Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	• Describe different types of data and organize collections of data.	Pre-Algebra Shape – Up

Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS— Interpret data using methods of exploratory data analysis.	• Describe and interpret measures of the center of a data set and know which measure to use for particular situations.	Word Problem Shape-Up Sets 1, 2, 3; Pre-Algebra Shape-Up
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS— Interpret data using methods of exploratory data analysis.	• Describe and interpret the spread of a set of data (e.g., range, quartile).	Word Problem Shape-Up Sets 1, 2, 3; Pre-Algebra Shape-Up
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS— Interpret data using methods of exploratory data analysis.	• Analyze and interpret relationships between variables (e.g., scatterplots).	Word Problem Shape-Up Sets 1, 2, 3; Pre-Algebra Shape-Up
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS— Interpret data using methods of exploratory data analysis.	• Analyze different representations of the same data to determine effects of the representation.	Pre-Algebra Shape-Up
Data Analysis, Statistics, and Probability	Standard 13: DATA ANALYSIS, STATISTICS, AND PROBABILITY: DATA ANALYSIS—Develop and evaluate inferences, predictions, and arguments that are based on data.	• Analyze different representations of the same data to determine effects of the representation.	Pre-Algebra Shape-Up
Data Analysis, Statistics, and Probability	Standard 14: DATA ANALYSIS, STATISTICS, AND PROBABILITY: PROBABILITY— Understand and apply basic notions of chance and probability.	• Judge the likelihood of uncertain events and connect these judgments to percents or proportions.	Pre-Algebra Shape-Up

Grade 7

Subhead	Standard	Benchmark	Merit Software
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	• Recognize and use signed numbers (e.g., order and compare integers and rational), proportions, and percents (e.g., use 15.1% or $\frac{2}{3}$ %).	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2

Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Explain and apply number theory concepts (e.g., triangular and square numbers, prime and composite numbers, factors and multiples). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> • Represent and use exponents, absolute values, scientific notation, and square and cube roots. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Describe situations when addition, subtraction, multiplication, and division of integers, rationals, and numbers involving whole number non-negative exponents are appropriate. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Recognize and use properties (closure, associative, commutative, distributive, identity and inverse) and order of operations on rational numbers. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> • Understand and use inverse relationships among and within operations of addition and subtraction, multiplication and division, and squares and square roots. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> • Select and use appropriate strategies for computing with rationals, ratios, exponents, and square roots. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> • Use estimation as a means to check for reasonableness of results and form upper and lower bounds. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3

Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Select appropriate units to estimate and measure angles, circumferences and areas of a circle, and surface area and volume of regular solids. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Estimate and measure angles in plane figures. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Develop and use formulas to find surface area and volumes of regular solids. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Select appropriately precise tools to achieve a desired accuracy in measurement. 	Pre-Algebra Shape – Up; Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Use ratios and proportions to solve problems related to measurement. 	Pre-Algebra Shape – Up; Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Solve simple problems involving rates and other derived measures (e.g., miles per hour, gms per cc or cm³). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Geometry	Standard 7: GEOMETRY AND SPATIAL SENSE: VISUAL AND SPATIAL SENSE—Use visualization and spatial reasoning to solve problems both within and outside of mathematics.	<ul style="list-style-type: none"> Compose and decompose two- and three-dimensional figures in order to solve problems and develop formulas (e.g., $(a + b)^2 = a^2 + 2ab + b^2$). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2

Geometry	Standard 8: GEOMETRY AND SPATIAL SENSE: REPRESENTATIONAL SYSTEMS—Select and use different representational systems, including coordinate geometry.	<ul style="list-style-type: none"> Use coordinate geometry to describe geometric relationships and properties of geometric figures. 	Basic Algebra Shape-Up Sets 1 & 2
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> Analyze, create, and generalize numeric and visual patterns including patterns that have a recursive nature (e.g., Pascal’s triangle, Fibonacci numbers, powers of rational numbers). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> Analyze and use linear relations among two variables. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> Represent and translate among a variety of patterns, relations and functions with tables, graphs, verbal rules, and symbolic rules. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> Use symbolic algebra to represent and solve situations involving change, rates of change, linear equations, and inequalities. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> Design experiments and surveys with consideration for issues of sampling (e.g., size, bias). 	Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> Describe different types of data and organize collections of data. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2

Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> Choose, create, and use various representations of data (e.g., histograms, stem and leaf plots, box and whisker plots). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Describe and interpret measures of the center of a data set and know which measure to use for particular situations. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Describe and interpret the spread of a set of data (e.g., range, quartile). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Analyze and interpret relationships between variables (e.g., scatterplots). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Analyze different representations of the same data to determine effects of the representation. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 13: DATA ANALYSIS, STATISTICS, AND PROBABILITY: DATA ANALYSIS—Develop and evaluate inferences, predictions, and arguments that are based on data.	<ul style="list-style-type: none"> Develop conclusions about a characteristic in the population. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 13: DATA ANALYSIS, STATISTICS, AND PROBABILITY: DATA ANALYSIS—Develop and evaluate inferences, predictions, and arguments that are based on data.	<ul style="list-style-type: none"> Explain that differences in data may indicate an actual difference in the populations from which the data were collected or that the differences may result from random variation in the samples. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 14: DATA ANALYSIS, STATISTICS, AND PROBABILITY: PROBABILITY—Understand and apply basic notions of chance and probability.	<ul style="list-style-type: none"> Judge the likelihood of uncertain events and connect these judgments to percents or proportions. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2

Data Analysis, Statistics, and Probability	Standard 14: DATA ANALYSIS, STATISTICS, AND PROBABILITY: PROBABILITY—Understand and apply basic notions of chance and probability.	<ul style="list-style-type: none"> Understand what it means for events to be equally likely and a game or process to be fair. 	Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 14: DATA ANALYSIS, STATISTICS, AND PROBABILITY: PROBABILITY—Understand and apply basic notions of chance and probability.	<ul style="list-style-type: none"> Calculate theoretical probabilities based on assumptions about sample space, and compare with experimental results. 	Basic Algebra Shape-Up Sets 1 & 2

Grade 8

Subhead	Standard	Benchmark	Merit Software
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> Recognize and use signed numbers (e.g., order and compare integers and rational), proportions, and percents (e.g., use 15.1% or $\frac{2}{3}\%$). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> Explain and apply number theory concepts (e.g., triangular and square numbers, prime and composite numbers, factors and multiples). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Number and Operations	Standard 1: NUMBER AND OPERATIONS: NUMBER SENSE—Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	<ul style="list-style-type: none"> Represent and use exponents, absolute values, scientific notation, and square and cube roots. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> Describe situations when addition, subtraction, multiplication, and division of integers, rationals, and numbers involving whole number non-negative exponents are appropriate. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> Recognize and use properties (closure, associative, commutative, distributive, identity and inverse) and order of operations on rational numbers. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3

Number and Operations	Standard 1: NUMBER AND OPERATIONS: OPERATION SENSE—Understand the meaning of operations and how they relate to each other.	<ul style="list-style-type: none"> Understand and use inverse relationships among and within operations of addition and subtraction, multiplication and division, and squares and square roots. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Select and use appropriate strategies for computing with rationals, ratios, exponents, and square roots. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Number and Operations	Standard 1: NUMBER AND OPERATIONS: COMPUTATION STRATEGIES—Use computational tools and strategies fluently and when appropriate, use estimation.	<ul style="list-style-type: none"> Use estimation as a means to check for reasonableness of results and form upper and lower bounds. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Select appropriate units to estimate and measure angles, circumferences and areas of a circle, and surface area and volume of regular solids. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Estimate and measure angles in plane figures. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Develop and use formulas to find surface area and volumes of regular solids. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> Select appropriately precise tools to achieve a desired accuracy in measurement. 	Pre-Algebra Shape – Up; Word Problem Shape-Up Sets 1, 2, 3

Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> • Use ratios and proportions to solve problems related to measurement. 	Pre-Algebra Shape – Up; Word Problem Shape-Up Sets 1, 2, 3
Measurement	Standard 4: MEASUREMENT: FLUENCY WITH MEASUREMENT—Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring.	<ul style="list-style-type: none"> • Solve simple problems involving rates and other derived measures (e.g., miles per hour, gms per cc or cm³). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Geometry	Standard 5: GEOMETRY AND SPATIAL SENSE: PROPERTIES AND RELATIONSHIPS—Analyze properties of objects and relationships among the properties.	<ul style="list-style-type: none"> • Analyze and describe geometric relationships among two- and three-dimensional figures (e.g., relationship between rectangles and squares, and between equilateral and isosceles triangles). 	Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Geometry	Standard 7: GEOMETRY AND SPATIAL SENSE: VISUAL AND SPATIAL SENSE—Use visualization and spatial reasoning to solve problems both within and outside of mathematics.	<ul style="list-style-type: none"> • Compose and decompose two- and three-dimensional figures in order to solve problems and develop formulas (e.g., $(a + b)^2 = a^2 + 2ab + b^2$). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> • Analyze, create, and generalize numeric and visual patterns including patterns that have a recursive nature (e.g., Pascal’s triangle, Fibonacci numbers, powers of rational numbers). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Patterns, Functions, and Algebra	Standard 9: PATTERNS, FUNCTIONS, AND ALGEBRA: PATTERNS AND FUNCTIONAL RELATIONSHIPS—Understand various types of patterns and functional relationships.	<ul style="list-style-type: none"> • Analyze and use linear relations among two variables. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> • Represent and translate among a variety of patterns, relations and functions with tables, graphs, verbal rules, and symbolic rules. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3

Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> Use symbolic algebra to represent and solve situations involving change, rates of change, linear equations, and inequalities. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Patterns, Functions, and Algebra	Standard 10: PATTERNS, FUNCTIONS, AND ALGEBRA: SYMBOLIC REPRESENTATION—Use symbolic forms to represent, model, and analyze mathematical situations.	<ul style="list-style-type: none"> Relate slopes of line to constant rates of change. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2; Word Problem Shape-Up Sets 1, 2, 3
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> Design experiments and surveys with consideration for issues of sampling (e.g., size, bias). 	Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> Describe different types of data and organize collections of data. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 11: DATA ANALYSIS, STATISTICS, AND PROBABILITY: FLUENCY WITH DATA—Pose questions and collect, organize, and represent data to answer those questions.	<ul style="list-style-type: none"> Choose, create, and use various representations of data (e.g., histograms, stem and leaf plots, box and whisker plots). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Describe and interpret measures of the center of a data set and know which measure to use for particular situations. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Describe and interpret the spread of a set of data (e.g., range, quartile). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS—Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Analyze and interpret relationships between variables (e.g., scatterplots). 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2

Data Analysis, Statistics, and Probability	Standard 12: DATA ANALYSIS, STATISTICS, AND PROBABILITY: STATISTICS— Interpret data using methods of exploratory data analysis.	<ul style="list-style-type: none"> Analyze different representations of the same data to determine effects of the representation. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 13: DATA ANALYSIS, STATISTICS, AND PROBABILITY: DATA ANALYSIS—Develop and evaluate inferences, predictions, and arguments that are based on data.	<ul style="list-style-type: none"> Develop conclusions about a characteristic in the population. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 13: DATA ANALYSIS, STATISTICS, AND PROBABILITY: DATA ANALYSIS—Develop and evaluate inferences, predictions, and arguments that are based on data.	<ul style="list-style-type: none"> Explain that differences in data may indicate an actual difference in the populations from which the data were collected or that the differences may result from random variation in the samples. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2
Data Analysis, Statistics, and Probability	Standard 14: DATA ANALYSIS, STATISTICS, AND PROBABILITY: PROBABILITY— Understand and apply basic notions of chance and probability.	<ul style="list-style-type: none"> Judge the likelihood of uncertain events and connect these judgments to percents or proportions. 	Pre-Algebra Shape-Up; Basic Algebra Shape-Up Sets 1 & 2