

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

The QBE Act calls upon the Department of Education to revise and update the QCC periodically to keep pace with rising expectations for high school graduates. In 1995, under this mandate of continuing improvement, Governor Zell Miller and State Superintendent of Schools Linda Schrenko appointed a work group called the "Georgia School Improvement Panel" to work on several aspects of school improvement, including the revision of the QCC. The result is the revision of Georgia's Quality Core Curriculum.

The revised QCC (1996) includes content standards for all subjects K-8 and 9-12 courses in English/language arts, mathematics, science, social studies, foreign languages, fine arts, health, physical education, technology/career education, agriculture, and English Speakers of Other Languages (ESOL).

Merit's Math programs address the following Georgia State Standards:

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Grade 3

Strand	Topic	Standard	Merit Software
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Measures using appropriate instruments and appropriate units, length, capacity, weight/mass, time, and temperature. Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Liter, Cup, Pint(Liquid and Dry), Quart (Liquid and Dry), Gallon, Weight/Mass, Gram, Ounce, Kilogram, Pound, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3

Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Measures using concrete materials such as string to find perimeter and circumference; squares or tiles to find area; and cubes to find volume. Determine perimeter by adding lengths of sides.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Selects appropriate customary and metric units of measure. Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Liter, Cup, Pint (Liquid and Dry), Quart (Liquid and Dry), Gallon, Weight/Mass, Gram, Ounce, Kilogram, Pound, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Money	Standard: Determines and estimates amounts of money up to \$5.00. Include amounts spent, change received, and equivalent amounts.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Similarity & Congruency	Standard: Sorts geometric shapes according to same shape (similar) and according to same shape and size (congruent).	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Spatial Sense	Standard: Visualizes, draws, and compares geometric shapes in various positions / orientations.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Time	Standard: Tells time to the minute and measures elapsed time, and measures time before and after the hour.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Visualization	Standard: Given a shape with a piece missing, selects the shape of the piece needed to complete the given shape.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Decimals	Standard: Relates models separated into ten equivalent parts to the language of decimals, such as "five-tenths" rather than "point five."	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Fractions	Standard: Identifies and writes fractions to describe parts of a whole using both regions and discrete sets (halves, thirds, fourths, sixths, eighths, and tenths).	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Fractions	Standard: Compares fractions with like denominators and explores comparison of fractions with unlike denominators using models.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up

Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Multiples	Standard: Uses a number line to determine to which multiple of 10 or 100 a given number (up to 1,000) is nearer.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Number Names	Standard: Translates words to numerals and numerals to words up to 9,999.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Number Names	Standard: Recognizes different names for whole numbers through 9,999 including names in expanded notation form (9000 + 900 + 90 + 9; 9 thousands, 9 hundreds, 9 tens, 9 ones; nine thousand, nine hundred, ninety-nine).	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Number Theory	Standard: Identifies even and odd numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Place Value	Standard: Relates concrete and pictorial models to numbers through thousands, and relates numbers to models; names numbers orally.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Place Value	Standard: Identifies place value through hundred thousands and identifies the number of hundred thousands, thousands, hundreds, tens, and ones in a given number.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Rational Numbers	Standard: Identifies the rational number (whole numbers and simple fractions) corresponding to a given point on the number line.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Rounding	Standard: Rounds two-, three-, and four-digit numbers to the nearer ten, hundred, or thousand.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Functions	Standard: Determines a pair of numbers or the missing element of a pair when given a relation or rule. Determines the relation or rule when given pairs of numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Multiplication	Standard: Writes a number sentence represented by a picture or an array.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Numerical Relationships	Standard: Recognizes numerical relationships through 9,999 (such as between, before, after, equal to, nearest to, least, and greatest).	Word Problem Shape-Up Set 1, 2, 3

Strand: Patterns & Relationships; Algebra	Topic: Patterns	Standard: Describe, extend, and make generalizations about geometric and numeric patterns.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Sequencing	Standard: Compares and orders whole numbers through 9,999.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Sets	Standard: Identifies subsets of given sets.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Sets	Standard: Uses the terms: all, some, and none.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Sets	Standard: Organizes elements of sets according to characteristics such as shading, color, shape, size, design, use, and number of sides.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Skip Counting	Standard: Continues or completes a given number sequence counting by ones, twos, threes, fours, fives, tens, hundreds, and thousands (include skip-counting on a number line).	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Problem Solving	Standard: Identifies information needed to solve a given problem.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Problem Solving	Standard: Selects appropriate operation (addition, subtraction, or multiplication) for a given problem situation.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Problem Solving	Standard: Employs problem-solving strategies (e.g. draw a picture; make a chart, graph, or table; guess and check; look for a pattern).	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Word Problems	Standard: Solves one- and two-step word problems related to appropriate third grade objectives. Includes oral and written problems and problems with extraneous information as well as information from sources such as pictographs, bar graphs, tables, and charts.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Coordinate Geometry	Standard: Locates points on a map or grid.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Graphs	Standard: Organizes data into charts and tables and constructs bar graphs using scales of one, two, five, or ten units and pictographs using scales of one, two, three, four, five, or ten units.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Graphs	Standard: Collects, reads, interprets, and compares data in charts, tables, and graphs.	Word Problem Shape-Up Set 1, 2, 3

Strand: Statistics & Probability	Topic: Probability	Standard: Determines probability of a given event through exploration (equally likely, least likely, and most likely).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Addition and Subtraction	Standard: Adds and subtracts whole numbers (one-, two- and three-digits, without or with regrouping), initially using manipulatives and then connecting the manipulations to symbolic procedures (problems presented vertically and horizontally with the horizontal problems rewritten vertically).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Addition and Subtraction	Standard: Select appropriate methods and tools for computing with whole numbers from among mental computation, estimation, calculators, and paper and pencil according to the context and nature of the computation and use the selected methods or tools.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Estimation	Standard: Applies estimation strategies beginning with front-end estimation and simple compatible numbers to predict appropriate results.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Estimation	Standard: Develop and use strategies to estimate the results of whole number computation and to judge the reasonableness of such results.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Mental Computation	Standard: Applies mental computation strategies (such as counting up, counting back, simple compatible numbers, doubles, making ten, multiples of ten) to addition and subtraction, and to simple multiplication and division.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication	Standard: Multiplies whole numbers up to two-digit by one-digit numbers using models and connecting them to computational strategies.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication	Standard: Recalls basic multiplication facts through $9 \times 9$ .	Word Problem Shape-Up Set 1, 2, 3

Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication and Division	Standard: Relates concrete and pictorial models to multiplication and division.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication and Division	Standard: Relates division to multiplication and uses models such as partitioning, and repeated subtraction to divide one- and two-digit numbers by one-digit numbers without and with remainders.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication and Division	Standard: Determines basic multiplication and division facts through 9 x 9 by using strategies such as skip-counting, multiplying by zero and one, dividing by one, splitting arrays, commutative property of multiplication, and using known facts to find unknown facts.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Sentences	Standard: Selects appropriate symbol (+, -, x, ÷, <, >, =) for use in a number sentence.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Uses properties of addition and multiplication (including commutative, associative, and properties of zero and one).	Word Problem Shape-Up Set 1, 2, 3

Grade 4

Strand	Topic	Standard	Merit Software
Strand: Geometry & Spatial Sense; Measurement	Topic: Coordinate Geometry	Standard: Uses ordered pairs of numbers to locate points on a grid or map and determine the ordered pair for a given point.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Geometric Relationships	Standard: Determines geometric relationships such as parallel to, perpendicular to, inside, outside, on, symmetrical, same size as, same shape as, same size and shape but different positions / orientation.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Geometry	Standard: Identifies and distinguishes among point, ray, line, line segment, and angle.	Word Problem Shape-Up Set 1, 2, 3

Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Selects appropriate customary and metric units of measure. Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Centiliter, Cup, Liter, Pint(Liquid and Dry), Quart (Liquid and Dry), Gallon, Weight/Mass, Milligram, Ounce, Gram, Pound, Kilogram, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Determines, through concrete experiences, perimeter by adding lengths of sides; area by counting squares; volume by counting cubes; and circumference by measuring with string.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Uses customary and metric units to measure length, capacity/volume (use liquid and dry units), weight/mass, temperature, and time (including telling time to the minute, elapsed time, time before and after hour.) Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Centiliter, Cup, Liter, Pint (Liquid and Dry), Quart (Liquid and Dry), Gallon, Weight/Mass, Milligram, Ounce, Gram, Pound, Kilogram, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Estimates and measures using appropriate instruments, length, capacity/volume, weight/mass, money, time, and temperature (including measuring to nearest half inch and nearest centimeter). Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Centiliter, Cup, Liter, Pint (Liquid & Dry), Quart (Liquid & Dry), Gallon, Weight/Mass, Milligram, Ounce, Gram, Pound, Kilogram, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3

Strand: Geometry & Spatial Sense; Measurement	Topic: Money	Standard: Determines and estimates amounts of money up to \$20, and adds and subtracts money using decimal notation without and with regrouping.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Plane and Solid Figures	Standard: Makes models of plane and solid figures, sorts and classifies these models according to distinguishing characteristics such as sides, angles, lines of symmetry, faces, and edges (such as triangles, quadrilaterals, circles, cones, cylinders, and rectangular prisms).	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Decimals	Standard: Relates models (such as base ten blocks) to decimal numbers orally first, then using fractional and decimal notation.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Equivalent Fractions	Standard: Recognize and generate equivalent forms of commonly-used fractions and decimals.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Fractions	Standard: Adds and subtracts fractions with like denominators using models to connect to computational strategies.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Number Names	Standard: Identifies different names for numbers through 999,999 (e.g., standard form, word name, expanded notation, or rational form).	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Place Value	Standard: Identifies place value for a given digit in numbers through 999,999 and determines the effect that changing a given digit will have on the value of the number.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Rational Numbers	Standard: Compares whole numbers and uses models to compare fractions, to identify equivalent fractions, and to compare decimals.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Functions	Standard: Determines a pair of numbers or the missing element of a pair when given a relation or rule, and determines the relation or rule given pairs of numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Problem Solving	Standard: Employs problem-solving strategies (e.g., make a chart, graph, or table; make an organized list; guess and check; make a simple problem; look for a pattern; draw a picture; or work backwards).	Word Problem Shape-Up Set 1, 2, 3

Strand: Problem Solving	Topic: Word Problems	Standard: Selects the appropriate operation(s) for a given word problem.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Word Problems	Standard: Solves simple problems (including those involving addition, subtraction, multiplication, and division of whole numbers and money).	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Word Problems	Standard: Solves one-, two-, or three-step word problems related to all appropriate fourth grade objectives including those presented orally and in writing; those in charts, tables, and graphs; and those with extraneous or insufficient information.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Data Analysis	Standard: Collects, reads, interprets, and compares data from charts, tables, and graphs (pictographs, bar graphs, and circle graphs) using a variety of scales and estimation.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Data Organization	Standard: Organizes data in charts and tables, and constructs bar graphs or pictographs using appropriate scales of one, two, three, four, five, or ten.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Measure of Central Tendency	Standard: Explores the concepts of mean and median.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Probability	Standard: Determines probability of a given event through use of manipulatives (equally likely, least likely, most likely, likely, and not likely).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Addition and Subtraction	Standard: Adds and subtracts two- and three-digit whole numbers using vertical and horizontal presentations with and without regrouping with the horizontal rewritten vertically.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Computation	Standard: Develop fluency in adding, subtracting, multiplying, and dividing whole numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Estimation	Standard: Uses estimation strategies such as compatible numbers to predict computation results and to predict measurements (including money).	Word Problem Shape-Up Set 1, 2, 3

Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Mental Computation	Standard: Applies mental computation strategies (such as counting up and back, compatible numbers; compensation and multiples of ten, hundred or thousand) to add, subtract, multiply, and divide.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication and Division	Standard: Recalls basic multiplication and related division facts, and identifies the missing factor in a given number sentence.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication and Division	Standard: Multiplies (up to three-digit by one-digit or two-digit by two-digit numbers) and divides (up to three-digit by one-digit numbers) and multiplies two-digit numbers by multiples of 100 without regrouping.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication and Division	Standard: Understand various meanings of multiplying and dividing whole numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiplication and Division	Standard: Understand the effects of multiplying and dividing whole numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Sentences	Standard: Selects appropriate symbol (+, -, x, ÷, <, >, =) to make a mathematical statement true.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Uses the properties of addition and multiplication (commutative, associative, distributive, and identity elements).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Identifies factors and multiples of a given number.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Explores the concept of prime numbers and composite numbers.	Word Problem Shape-Up Set 1, 2, 3

Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rational Numbers	Standard: Relates models (including number lines and sets) to wholes, fractional, and decimal numbers, and estimates the fraction represented by the shaded portion of a non-scaled bar. Understands fractions with denominators of 2, 3, 4, 5, 6, 8, or 10.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rounding	Standard: Rounds two-, three-, or four-digit numbers to the nearest ten, hundred, or thousand.	Word Problem Shape-Up Set 1, 2, 3

Grade 5

Strand	Topic	Standard	Merit Software
Strand: Geometry & Spatial Sense; Measurement	Topic: Coordinate Geometry	Standard: Uses ordered pairs of numbers to locate points on a grid or map and determine the ordered pair for a given point.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Geometric Relationships	Standard: Determines line of symmetry and identifies geometric relations (e.g., parallel to, perpendicular to, intersect, horizontal, vertical, similar, congruent, flips, slides, and turns).	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Geometric Shapes	Standard: Makes models of plane and solid figures and sorts and classifies these models according to characteristics such as number of sides, angles, vertices, faces, edges, tessellations, and lines of symmetry (include triangles, quadrilaterals, polygons, circles, cones, cylinders, rectangular prisms, and pyramids).	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Geometry	Standard: Identifies and distinguishes among point, ray, line, line segment, and angle.	Word Problem Shape-Up Set 1, 2, 3

Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Selects appropriate customary and metric units of measure for length (including perimeter and circumference), area, capacity/volume, weight/mass, time, and temperature. Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Centiliter, Cup, Liter, Pint (Liquid and Dry), Quart (Liquid and Dry), Gallon, Weight/Mass, Milligram, Ounce, Gram, Pound, Kilogram, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Uses customary and metric units to measure length, capacity/volume (use liquid and dry units), weight/mass, elapsed time and temperature (include measuring length to nearest quarter inch, nearest millimeter and temperature below freezing). Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Centiliter, Cup, Liter, Pint (Liquid and Dry), Quart (Liquid and Dry), Gallon, Weight/Mass, Milligram, Ounce, Gram, Pound, Kilogram, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Determine perimeter, area, and volume of various geometric figures connecting concrete experiences (covering, filling, and counting) to computation and formulas.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Money	Standard: Determines and estimates amounts of money.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Computation	Standard: Adds, subtracts, and multiplies fractions and mixed numbers with like and unlike denominators (presented vertically and horizontally), using models to connect to computational strategies.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Decimals	Standard: Relates decimals (through hundredths) to models using base ten blocks and grid paper.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up

Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Decimals	Standard: Using models and vertical and horizontal presentations, adds and subtracts decimals through hundredths, without and with regrouping.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Fractions	Standard: Relates a fraction to a part of a whole, a part of a set, and a point on a number line; uses models to determine equivalent fractions. Uses fractions with denominators of 2, 3, 4, 5, 6, 8, 10, 12, 16, or 100.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Number Names	Standard: Identifies different names for numbers (whole numbers, fractions, and decimals) including number words and expanded notation and relates models to such numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Number Theory	Standard: Identifies factors and multiples of a given number, including prime factorization.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Number Theory	Standard: Explores the concept of divisibility and develops rules for divisibility by 2, 3, 5, and 10.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Place Value	Standard: Identifies place value for whole numbers through millions, and decimals through hundredths. Determines the effect that changing a digit will have on the value of the number.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Functions	Standard: Determines a pair of numbers or the missing element of a pair when given a relation or rule, and determines the relation or rule given pairs of numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Sequencing	Standard: Compares and orders whole numbers, fractions, and decimals through hundredths.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Estimation	Standard: Predicts measurement by using strategies such as walking off and rough comparison.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Problem Solving	Standard: Given a situation, chooses the most appropriate method of computation (mental computation, paper and pencil, or calculator).	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Word Problems	Standard: Identifies needed information and selects the steps necessary to solve multi-step word problems.	Word Problem Shape-Up Set 1, 2, 3

Strand: Problem Solving	Topic: Word Problems	Standard: Solves one-, two-, and three-step word problems related to all appropriate fifth grade objectives including those presented orally and in writing: those in charts, tables, and graphs; and those with extraneous or insufficient information.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Word Problems	Standard: Selects and uses appropriate strategies for solving problems (e.g., look for a pattern, guess and check, make an organized list, simplify the problem, work backwards).	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Data Analysis	Standard: Interprets and draws conclusions from charts, tables, and graphs (e.g., pictographs, bar graphs, and circle graphs).	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Data Collection	Standard: Explores sampling and randomness in collecting data (include random number tables).	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Data Collection	Standard: Collects and organizes data into tallies, charts, and tables; determines appropriate scale and constructs bar graphs and pictographs.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Measures of Central Tendency	Standard: Uses clustering to explore the concept of mean, median, and mode of a set of data and calculates the arithmetic mean.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Probability	Standard: Determines probability of a given event through exploration (more likely, less likely, equally likely, likely, or not likely).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Computation	Standard: Adds, subtracts, multiplies, and divides whole numbers up through four digits both vertically and horizontally with and without regrouping. Uses calculators for more laborious computations (e.g., four-digit addition and subtraction; multiplication and division of three-digit three-digit numbers).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Estimation	Standard: Uses estimation strategies (such as clustering, rounding, or reference point) to predict computational results of whole numbers, fractions, mixed numbers, and decimals.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Mental Computation	Standard: Uses mental computation strategies (such as counting up, counting back, compensation, compatible numbers and multiples of ten, hundred, or thousand, with whole numbers, fractions, and decimals, including money).	Word Problem Shape-Up Set 1, 2, 3

Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Sentences	Standard: Identifies the number or symbol (+, -, x, ÷, <, >, =) that makes a given number sentence true.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Uses the commutative, associative, and identity properties of addition and multiplication, and the distributive property of multiplication over addition.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rounding	Standard: Rounds decimals to the nearest whole number. (Good connection to QCC 5.15, money)	Word Problem Shape-Up Set 1, 2, 3

Grade 6

Strand	Topic	Standard	Merit Software
Strand: Geometry & Spatial Sense; Measurement	Topic: Coordinate Geometry	Standard: Uses ordered pairs of numbers to locate points on a grid or map and determine the ordered pair for a given point.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Geometric Relationships	Standard: Determines line of symmetry and identifies geometric relations (e.g., parallel to, perpendicular to, intersect, horizontal, vertical, similar, congruent, flips, slides, and turns).	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Geometric Shapes	Standard: Makes models of plane and solid figures and sorts and classifies these models according to characteristics such as number of sides, angles, vertices, faces, edges, tessellations, and lines of symmetry (include triangles, quadrilaterals, polygons, circles, cones, cylinders, rectangular prisms, and pyramids).	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Geometry	Standard: Identifies and distinguishes among point, ray, line, line segment, and angle.	Word Problem Shape-Up Set 1, 2, 3

Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Selects appropriate customary and metric units of measure for length (including perimeter and circumference), area, capacity/volume, weight/mass, time, and temperature. Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Centiliter, Cup, Liter, Pint (Liquid and Dry), Quart (Liquid and Dry), Gallon, Weight/Mass, Milligram, Ounce, Gram, Pound, Kilogram, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Uses customary and metric units to measure length, capacity/volume (use liquid and dry units), weight/mass, elapsed time and temperature (include measuring length to nearest quarter inch, nearest millimeter and temperature below freezing). Length, Millimeter, Inch, Centimeter, Foot, Meter, Yard, Kilometer, Mile, Capacity, Milliliter, Ounce, Centiliter, Cup, Liter, Pint (Liquid and Dry), Quart (Liquid and Dry), Gallon, Weight/Mass, Milligram, Ounce, Gram, Pound, Kilogram, Time, Second, Week, Minute, Month, Hour, Year, Day, Decade, Century, Temperature, Degree Fahrenheit, Degree Celsius	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Measurement	Standard: Determine perimeter, area, and volume of various geometric figures connecting concrete experiences (covering, filling, and counting) to computation and formulas.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Money	Standard: Determines and estimates amounts of money.	Word Problem Shape-Up Set 1, 2, 3
Strand: Geometry & Spatial Sense; Measurement	Topic: Number Names	Standard: Identifies different names for numbers (whole numbers, fractions, and decimals) including number words and expanded notation and relates models to such numbers.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Geometry & Spatial Sense; Measurement	Topic: Number Theory	Standard: Identifies factors and multiples of a given number, including prime factorization.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up
Strand: Geometry & Spatial Sense; Measurement	Topic: Number Theory	Standard: Explores the concept of divisibility and develops rules for divisibility by 2, 3, 5, and 10.	Word Problem Shape-Up Set 1, 2, 3; Fraction Shape-Up

Strand: Geometry & Spatial Sense; Measurement	Topic: Place Value	Standard: Identifies place value for whole numbers through millions, and decimals through hundredths. Determines the effect that changing a digit will have on the value of the number.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Computation	Standard: Adds, subtracts, and multiplies fractions and mixed numbers with like and unlike denominators (presented vertically and horizontally), using models to connect to computational strategies.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Decimals	Standard: Relates decimals (through hundredths) to models using base ten blocks and grid paper.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Decimals	Standard: Using models and vertical and horizontal presentations, adds and subtracts decimals through hundredths, without and with regrouping.	Word Problem Shape-Up Set 1, 2, 3
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Fractions	Standard: Relates a fraction to a part of a whole, a part of a set, and a point on a number line; uses models to determine equivalent fractions. Uses fractions with denominators of 2, 3, 4, 5, 6, 8, 10, 12, 16, or 100.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Functions	Standard: Determines a pair of numbers or the missing element of a pair when given a relation or rule, and determines the relation or rule given pairs of numbers.	Word Problem Shape-Up Set 1, 2, 3
Strand: Patterns & Relationships; Algebra	Topic: Sequencing	Standard: Compares and orders whole numbers, fractions, and decimals through hundredths.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Estimation	Standard: Predicts measurement by using strategies such as walking off and rough comparison.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Problem Solving	Standard: Given a situation, chooses the most appropriate method of computation (mental computation, paper and pencil, or calculator).	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Word Problems	Standard: Identifies needed information and selects the steps necessary to solve multi-step word problems.	Word Problem Shape-Up Set 1, 2, 3
Strand: Problem Solving	Topic: Word Problems	Standard: Solves one-, two-, and three-step word problems related to all appropriate fifth grade objectives including those presented orally and in writing: those in charts, tables, and graphs; and those with extraneous or insufficient information.	Word Problem Shape-Up Set 1, 2, 3

Strand: Problem Solving	Topic: Word Problems	Standard: Selects and uses appropriate strategies for solving problems (e.g., look for a pattern, guess and check, make an organized list, simplify the problem, work backwards).	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Data Analysis	Standard: Interprets and draws conclusions from charts, tables, and graphs (e.g., pictographs, bar graphs, and circle graphs).	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Data Collection	Standard: Explores sampling and randomness in collecting data (include random number tables).	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Data Collection	Standard: Collects and organizes data into tallies, charts, and tables; determines appropriate scale and constructs bar graphs and pictographs.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Measures of Central Tendency	Standard: Uses clustering to explore the concept of mean, median, and mode of a set of data and calculates the arithmetic mean.	Word Problem Shape-Up Set 1, 2, 3
Strand: Statistics & Probability	Topic: Probability	Standard: Determines probability of a given event through exploration (more likely, less likely, equally likely, likely, or not likely).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Computation	Standard: Adds, subtracts, multiplies, and divides whole numbers up through four digits both vertically and horizontally with and without regrouping. Uses calculators for more laborious computations (e.g., four-digit addition and subtraction; multiplication and division of three-digit three-digit numbers).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Estimation	Standard: Uses estimation strategies (such as clustering, rounding, or reference point) to predict computational results of whole numbers, fractions, mixed numbers, and decimals.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Mental Computation	Standard: Uses mental computation strategies (such as counting up, counting back, compensation, compatible numbers and multiples of ten, hundred, or thousand, with whole numbers, fractions, and decimals, including money).	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Sentences	Standard: Identifies the number or symbol (+, -, x, ÷, <, >, =) that makes a given number sentence true.	Word Problem Shape-Up Set 1, 2, 3

Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Uses the commutative, associative, and identity properties of addition and multiplication, and the distributive property of multiplication over addition.	Word Problem Shape-Up Set 1, 2, 3
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rounding	Standard: Rounds decimals to the nearest whole number. (Good connection to QCC 5.15, money)	Word Problem Shape-Up Set 1, 2, 3

Grade 7

Strand	Topic	Standard	Merit Software
Strand: Geometry & Spatial Sense; Measurement	Topic: Angles	Standard: Classifies angles as acute, right, obtuse, or straight; and names angles using points, numbers, and letters.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Geometry & Spatial Sense; Measurement	Topic: Graphing, Integers	Standard: Identifies and graphs an ordered pair of integers on a four-quadrant coordinate plane.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Geometry & Spatial Sense; Measurement	Topic: Circles, Polygons, Geometric Solids, Formulas	Standard: Finds the perimeter (or circumference) and area of polygons and circles, and the volume and surface area of geometric solids using formulas. (Uses student development of formulas when possible.)	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Geometry & Spatial Sense; Measurement	Topic: Customary Units, Metric Units	Standard: Selects and uses appropriate customary and metric units of measure for length (including perimeter and circumference), area, volume, capacity, weight/mass, time, temperature, and angle measure.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Geometry & Spatial Sense; Measurement	Topic: Customary Units, Metric Units, Conversion within System	Standard: Converts from one metric unit to another metric unit and from one customary unit to another customary unit (length, capacity, weight/mass, time, and money).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Fractions, Decimals, Integers, Percent	Standard: Compares and orders whole numbers, integers, fractions, decimals, and percents.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2

Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Fractions, Decimals, Percents	Standard: Uses fractions, decimals, and percents interchangeably (e.g., $\frac{1}{2}$ Standard: Uses fractions, decimals, and percents interchangeably (e.g., $\frac{1}{4}$ , .25, 25%) and recognizes equivalent representations.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Computation, Mental Computation, Properties of Real Numbers	Standard: Applies properties of addition and multiplication to facilitate computation, particularly mental computation.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Number Theory	Standard: Identifies factors, multiples, primes, and composites.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Positive Integers	Standard: Identifies greatest common factor and least common multiple.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Real Numbers	Standard: Identifies subsets of the real numbers and determines all subsets of which a given number is an element (e.g., 9 is a whole number, a natural number, an integer, and a rational number).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Expressions, Equations, Inequalities	Standard: Identifies the use of a variable as a placeholder in an algebraic expression or equation.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Expressions	Standard: Evaluates algebraic expressions (e.g., Given $3a + 4$ . If $a = 2$ , then $3(2) + 4 = 10$ ).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Equations, Inequalities	Standard: Writes and solves one-step algebraic equations and inequalities using addition, subtraction, multiplication, and division (e.g., $a + 11 = 15$ ; $b - 2 = 21$ ; $m/2 = 15$ ; $5x = 40$ ).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Inequalities, Graphing	Standard: Graphs inequalities on a number line.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Expressions	Standard: Uses order of operations to simplify numerical expressions that involve addition, subtraction, multiplication, and division, with and without parentheses.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Expressions, Equations	Standard: Translates English phrases and sentences into mathematical expressions, equations, and inequalities.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2

Strand: Patterns & Relationships; Algebra	Topic: Variables	Standard: Determines how changes in one variable can affect another variable (e.g., Given $b = 2a$ . If $a = 2$ , then $b = 4$ . If $a = 3$ , then $b = 6$ ).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Problem Solving, Equations	Standard: Writes and solves an equation for a given word problem.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Problem Solving Strategies, Reasoning, Estimation Strategies, Mental Computation	Standard: Solves problems, reasons, and estimates throughout mathematics. <ul style="list-style-type: none"> <li>• Selects and uses problem-solving strategies such as reading the problem, drawing a picture or diagram, using trial and error, making a table or chart, looking for patterns, making a simpler problem and then generalizing, working backwards, etc.</li> <li>• Selects and uses appropriate tools (such as mental computation, calculators, manipulative materials, paper and pencil, computer) in solving problems. - Uses appropriate estimation strategies (such as front-end, breaking numbers apart, compatible numbers, guess and check, clustering, rounding, compensation) to check the reasonableness of results.</li> <li>• Solves nonroutine problems for which the answer is not obvious.</li> <li>• Relates concepts and skills to practical applications.</li> </ul>	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Communication, Reasoning	Standard: Describes orally and in writing, using the appropriate mathematical vocabulary, mathematical concepts and procedures, such as solving a word problem or computing.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Technology, Computer Skills, Charts, Tables, Graphs	Standard: Uses computer software and applications to research, investigate, and analyze data and to represent this information using charts, tables, graphs, or other presentation forms.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Problem Solving Strategies	Standard: Selects and uses appropriate problem-solving strategies to solve single- and multiple-step problems.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Percent	Standard: Solves practical problems using percents (e.g., sales tax, sale price and commission, discounts).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2

Strand: Statistics & Probability	Topic: Simple Probability	Standard: Identifies possible outcomes of simple experiments and predicts or describes the probability of a given event expressed as a rational number from 0 through 1.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Charts, Tables, Graphs, Distributions	Standard: Collects, organizes data, determines appropriate method and scale to display data, and constructs frequency distributions, bar graphs, line graphs, circle graphs, tables, and charts.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Charts, Tables, Graphs, Distributions	Standard: Reads and interprets data in frequency distributions, diagrams, charts, tables, and graphs; and makes predictions or conclusions based on this data.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Whole Numbers, Fractions, Decimals, Computation, Problem Solving	Standard: Uses addition, subtraction, multiplication, and division (interpreting remainders in context of problem) in computation and problem solving with whole numbers, fractions, and decimals.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Mental Computation Strategies	Standard: Performs computations mentally using strategies such as multiples of tens, powers of ten, compensation, breaking apart numbers, or compatible numbers.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Estimation	Standard: Uses estimation strategies (such as clustering, rounding, or reference point) to predict computational results of whole numbers, fractions, mixed numbers, and decimals.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Mental Computation	Standard: Uses mental computation strategies (such as counting up, counting back, compensation, compatible numbers and multiples of ten, hundred, or thousand, with whole numbers, fractions, and decimals, including money).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Sentences	Standard: Identifies the number or symbol (+, -, ×, ÷, <, >, =) that makes a given number sentence true.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Uses the commutative, associative, and identity properties of addition and multiplication, and the distributive property of multiplication over addition.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2

Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rounding	Standard: Rounds decimals to the nearest whole number. (Good connection to QCC 5.15, money)	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
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Grade 8

Strand	Topic	Standard	Merit Software
Strand: Algebra I	Topic: Problem Solving, Reasoning	Standard: Solve problems throughout this course that involve:	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Problem Solving, Connections	Standard: Solves problems that link concepts to one another and to practical applications using tools such as scientific or graphing calculators, computers, and manipulatives.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Communication	Standard: Communicates mathematical ideas by using language and symbolism:	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Language of Algebra: Numbers and Variables	Standard: Reviews the following algebraic topics:	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Connections, Patterns, and Functions	Standard: Connects patterns to the concept of function and uses patterns, relations, and functions to solve problems.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Patterns and Functions	Standard: Distinguishes between relations and functions, and identifies the domain and range.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Real Number System	Standard: Identifies and applies properties of the real number system.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Solving Equations	Standard: Solves linear equations using a variety of methods such as manipulatives and technology.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Solving Equations	Standard: Solves problems involving linear equations.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Inequalities	Standard: Solves simple and compound inequalities in one variable and graphs the solution set on the number line.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Linear Inequalities	Standard: Solves problems involving linear inequalities and graphs the solution on a coordinate plane.	Basic Algebra Shape-Up Set 1 & 2

Strand: Algebra I	Topic: Rational Expressions: Algebraic Fractions	Standard: Simplifies simple algebraic fractions.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Rational Expressions: Algebraic Fractions	Standard: Solves simple rational equations.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Rational Expressions: Algebraic Fractions	Standard: Solves problems involving ratios, proportions, and percents.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Statistics	Standard: Summarizes data in various ways, including mean, median, mode, and range.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Probability	Standard: Identifies possible outcomes of simple experiments and predicts or describes the probability of a given event expressed as a rational number from 0 through 1.	Basic Algebra Shape-Up Set 1 & 2
Strand: Algebra I	Topic: Probability	Standard: Conducts and interprets a compound probability experiment.	Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Problem Solving Strategies, Reasoning, Estimation Strategies, Mental Computation	Standard: Examines relations (functions) to determine how changes in one variable can affect another variable (e.g., given $b = 2a$ . If $a = 2$ , then $b = 4$ . If $a = 3$ , then $b = 6$ ).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Problem Solving	Standard: Writes and solves an equation or simple inequality for a given word problem.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Perimeter, Area, Circumference, Volume, Surface Area	Standard: Applies formulas (e.g., area, perimeter, circumference, volume, surface area), including investigating and using the Pythagorean Theorem.	Word Problem Shape-Up Set 1, 2, 3

Strand: Problem Solving	Topic: Appropriate Methods and Tools, Applications	<p>Standard: Solves problems, reasons, and estimates throughout mathematics.</p> <ul style="list-style-type: none"> <li>• Selects and uses problem-solving strategies such as reading the problem, drawing a picture or diagram, using trial and error, making a table or chart, looking for patterns, making a simple problem then generalizing, working backwards, etc.</li> <li>• Selects and uses appropriate tools (such as mental computation, calculators, manipulative materials, paper and pencil, computer) in solving problems.</li> <li>• Uses appropriate estimation strategies (such as breaking numbers apart, compatible numbers, guess and check, clustering, rounding, compensation) to check the reasonableness of results.</li> <li>• Solves nonroutine problems for which the answer is not obvious.</li> <li>• Relates concepts and skills to practical applications.</li> </ul>	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Vocabulary	Standard: Describes orally and in writing, using the appropriate vocabulary, mathematical concepts and procedures, such as solving a word problem or computing.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Pattern, Sequence	Standard: Uses scientific calculator and computer skills to solve problems, to discover patterns and sequences, to investigate situations and draw conclusions.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Research, Investigation, Data Analysis	Standard: Uses computer software and applications to research, investigate, and analyze data and to represent this information using charts, tables, graphs, or other presentation forms.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Commission, Discount, Sales Tax, Sales Price	Standard: Solves practical problems using percents (e.g., sales tax, sale price and commission, and discounts).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rational Numbers	Standard: Adds, subtracts, multiplies, and divides integers and other rational numbers.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2

Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiples, Powers, Compensation, Compatible Numbers	Standard: Performs computations mentally using strategies such as multiples of ten, powers of ten, compensation, breaking apart numbers, or compatible numbers.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Prediction, Outcome, Event	Standard: Identifies possible outcomes of simple and compound experiments, and predicts or describes the probability of a given event, expressed as a rational number from 0 through 1.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Data Collection, Data Organization, Data Display, Scale	Standard: Collects and organizes data, determines appropriate method and scale to display data, and constructs frequency distributions; bar, line, and circle graphs; tables and charts; line plots, stem-and-leaf plots, box-and-whisker plots, and scatter plots.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Mean, Median, Mode, Range	Standard: Uses mean, median, mode, and range to describe tendencies of a data set and make predictions.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Data Interpretation, Data Display, Prediction, Conclusion	Standard: Reads, interprets, compares, and analyzes data in frequency distributions, diagrams, charts, tables, and graphs (bar, line, circle, stacked bar, double line, and multiple bar), and makes predictions or conclusions based on this data.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Sentences	Standard: Identifies the number or symbol (+, -, x, ÷, <, >, =) that makes a given number sentence true.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Uses the commutative, associative, and identity properties of addition and multiplication, and the distributive property of multiplication over addition.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rounding	Standard: Rounds decimals to the nearest whole number. (Good connection to QCC 5.15, money)	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2

## Algebra I

Strand	Topic	Standard	Merit Software
Strand: Geometry & Spatial Sense; Measurement	Topic: Angles	Standard: Classifies angles as acute, right, obtuse, or straight; and names angles using points, numbers, and letters.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Geometry & Spatial Sense; Measurement	Topic: Graphing, Integers	Standard: Identifies and graphs an ordered pair of integers on a four-quadrant coordinate plane.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Geometry & Spatial Sense; Measurement	Topic: Circles, Polygons, Geometric Solids, Formulas	Standard: Finds the perimeter (or circumference) and area of polygons and circles, and the volume and surface area of geometric solids using formulas. (Uses student development of formulas when possible.)	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Geometry & Spatial Sense; Measurement	Topic: Customary Units, Metric Units	Standard: Selects and uses appropriate customary and metric units of measure for length (including perimeter and circumference), area, volume, capacity, weight/mass, time, temperature, and angle measure.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Geometry & Spatial Sense; Measurement	Topic: Customary Units, Metric Units, Conversion within System	Standard: Converts from one metric unit to another metric unit and from one customary unit to another customary unit (length, capacity, weight/mass, time, and money).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Equivalent Representations	Standard: Uses fractions, decimals, and percents interchangeably, and recognizes equivalent representations.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Ordering	Standard: Compares and orders real numbers (whole numbers, integers, fractions, decimals, and percents).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Associative, Commutative, Distributive, Identity, Inverse, Properties of Zero and One	Standard: Recognizes, describes, and applies all properties of the real numbers system (associative, commutative, inverses, identities, properties of zero and one, and the distributive property of multiplication over addition) in situations such as evaluating algebraic expressions and solving equations.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Number Sense & Numeration; Fractions & Decimals	Topic: Subsets of Real Numbers: Natural, Whole, Integer, Rational, Irrational	Standard: Identifies subsets of the real numbers and determines all subsets of which a given number is an element (e.g., 9 is a whole number, a natural number, and an integer).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2

Strand: Patterns & Relationships; Algebra	Topic: Symbol, Variable, Equality, Inequality	Standard: Uses signs or symbols to represent words, phrases, numbers, or quantities.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Variable, Symbol, Solving Equation	Standard: Translates English phrases and sentences into mathematical/ algebraic expressions, equations, and inequalities.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Variable	Standard: Determines the number that makes a given number sentence true using the properties of equations.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Order of Operations	Standard: Uses order of operations to simplify numerical expressions.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Variable	Standard: Evaluates algebraic expressions using substitution.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Variable	Standard: Solves single- and multi-step equations (including formulas) and inequalities using addition, subtraction, multiplication, and division.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Variable	Standard: Sets up a proportion and solves for the missing term in a proportion.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Number Line	Standard: Graphs simple and compound inequalities on a number line.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Problem Solving Strategies, Reasoning, Estimation Strategies, Mental Computation	Standard: Examines relations (functions) to determine how changes in one variable can affect another variable (e.g., given $b = 2a$ . If $a = 2$ , then $b = 4$ . If $a = 3$ , then $b = 6$ ).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Problem Solving	Standard: Writes and solves an equation or simple inequality for a given word problem.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Patterns & Relationships; Algebra	Topic: Perimeter, Area, Circumference, Volume, Surface Area	Standard: Applies formulas (e.g., area, perimeter, circumference, volume, surface area), including investigating and using the Pythagorean Theorem.	Word Problem Shape-Up Set 1, 2, 3

Strand: Problem Solving	Topic: Appropriate Methods and Tools, Applications	Standard: Solves problems, reasons, and estimates throughout mathematics. <ul style="list-style-type: none"> <li>• Selects and uses problem-solving strategies such as reading the problem, drawing a picture or diagram, using trial and error, making a table or chart, looking for patterns, making a simple problem then generalizing, working backwards, etc.</li> <li>• Selects and uses appropriate tools (such as mental computation, calculators, manipulative materials, paper and pencil, computer) in solving problems.</li> <li>• Uses appropriate estimation strategies (such as breaking numbers apart, compatible numbers, guess and check, clustering, rounding, compensation) to check the reasonableness of results. - Solves nonroutine problems for which the answer is not obvious.</li> <li>• Relates concepts and skills to practical applications.</li> </ul>	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Vocabulary	Standard: Describes orally and in writing, using the appropriate vocabulary, mathematical concepts and procedures, such as solving a word problem or computing.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Pattern, Sequence	Standard: Uses scientific calculator and computer skills to solve problems, to discover patterns and sequences, to investigate situations and draw conclusions.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Research, Investigation, Data Analysis	Standard: Uses computer software and applications to research, investigate, and analyze data and to represent this information using charts, tables, graphs, or other presentation forms.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Problem Solving	Topic: Commission, Discount, Sales Tax, Sales Price	Standard: Solves practical problems using percents (e.g., sales tax, sale price and commission, and discounts).	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rational Numbers	Standard: Adds, subtracts, multiplies, and divides integers and other rational numbers.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2

Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Multiples, Powers, Compensation, Compatible Numbers	Standard: Performs computations mentally using strategies such as multiples of ten, powers of ten, compensation, breaking apart numbers, or compatible numbers.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Prediction, Outcome, Event	Standard: Identifies possible outcomes of simple and compound experiments, and predicts or describes the probability of a given event, expressed as a rational number from 0 through 1.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Data Collection, Data Organization, Data Display, Scale	Standard: Collects and organizes data, determines appropriate method and scale to display data, and constructs frequency distributions; bar, line, and circle graphs; tables and charts; line plots, stem-and-leaf plots, box-and-whisker plots, and scatter plots.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Mean, Median, Mode, Range	Standard: Uses mean, median, mode, and range to describe tendencies of a data set and make predictions.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Statistics & Probability	Topic: Data Interpretation, Data Display, Prediction, Conclusion	Standard: Reads, interprets, compares, and analyzes data in frequency distributions, diagrams, charts, tables, and graphs (bar, line, circle, stacked bar, double line, and multiple bar), and makes predictions or conclusions based on this data.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Sentences	Standard: Identifies the number or symbol (+, -, x, ÷, <, >, =) that makes a given number sentence true.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Number Theory	Standard: Uses the commutative, associative, and identity properties of addition and multiplication, and the distributive property of multiplication over addition.	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2
Strand: Whole Number Computation; Estimation; Whole Number Operations	Topic: Rounding	Standard: Rounds decimals to the nearest whole number. (Good connection to QCC 5.15, money)	Word Problem Shape-Up Set 1, 2, 3; Pre-Algebra Shape-Up; Basic Algebra Shape-Up Set 1 & 2