

Manson Northwest Webster Math Standards K-12

Standard 1: Use a variety of strategies in the problem solving process.

CODE	BENCHMARK
K.1.1	Draws pictures to represent problems.
K.1.2	Uses models (e.g., pattern blocks, tiles, or other manipulatives) to represent problems.
1.1.1	Restate problems in own words to demonstrate understanding.
1.1.2	Uses speaking, writing and drawing to represent problem situations (e.g., translate from pictures of objects to numerical expressions).
1.1.3	Uses models (e.g., pattern blocks, tiles, or other manipulatives) to represent problems.
2.1.1	Uses a variety of problem solving strategies (e.g., identifying a pattern, choosing an operation, using trial and error, manipulatives, evaluating methods of solution).
2.1.2	Explain to others the process used to solve a problem.
2.1.3	Uses speaking, writing and drawing forms to represent problem situations (e.g., translate from pictures of objects to numerical expressions).
3.1.1	Knows information required to solve problems (e.g., make organized lists or tables of information necessary).
3.1.2	Uses a variety of problem-solving strategies. (e.g., identifying a pattern, choosing an operation, using trial and error, manipulatives, and evaluating methods of solution).
4.1.1	Represent problem situations in a variety of forms (e.g., translate from a diagram to a number or symbolic expression).
4.1.2	Explain methods and reasoning behind the problem solution to determine its reasonableness.
5.1.1	Uses a variety of problem-solving strategies.
5.1.2	Understand basic valid and invalid arguments.
5.1.3	Understand that some ways of representing a problem are more helpful than others.
6.1.1	Use a variety of measuring processes to model and to solve problems.
6.1.2	Understand how to break a complex problem into single parts.
6.1.3	Uses multiple methods to solve mathematical problems.
6.1.4	Construct informal logical arguments to justify reasoning processes.
7.1.1	Uses a variety of strategies to understand problem-solving situations.
7.1.2	Uses a variety of strategies to understand problem-solving situations and processes.
7.1.3	Generalize from a pattern of observations made in particular cases, make conjectures, and provide supporting arguments for these conjectures.
8.1.1	Formulate a problem, determine information required to solve the problem, choose methods for obtaining this information, and set limits for acceptable solutions.
8.1.2	Understand the role of written symbols in representing mathematical ideas and the use of precise language in conjunction with the special

Manson Northwest Webster Math Standards K-12

	symbols of mathematics.
8.1.3	Understand how to break a complex problem into simpler parts or use a similar problem type to solve a problem [N].
8.1.4	Construct informal logical arguments to justify reasoning processes and methods of solutions to problems (i.e., use informal deductive methods).
9-12.1.1	Understand, use, and construct a mathematical proof. <i>[Geometry]</i>
9-12.1.2	Apply the process of math modeling to open-ended real-world problem situations (i.e., problem formation, math modeling, solve, interpret, and justify use of technology when appropriate) <i>[All]</i>
9-12.1.3	Construct logical arguments to test conjectures and to justify solutions to problems. <i>[All]</i>
9-12.1.4a	Construct equations for simple problems. <i>[All]</i>
9-12.1.4b	Construct equations for multi-step problems. <i>[All]</i>

Standard 2: Understand and apply basic and advanced properties of the concepts of numbers.

CODE	BENCHMARK
K.2.1	Understand ordinal numbers (1 st , 2 nd , 3 rd).
K.2.2	Count objects to 20.
K.2.3	Understands a variety of representations of whole numbers 0-20 (e.g., written numerals, objects in sets, number lines).
K.2.4	Understands the order and relative values of whole numbers 0-20.
1.2.1	Understands ordinal numbers 1 st to 10 th .
1.2.2	Count numbers 0-100 (e.g., count by 1's, 2's, 5's and 10's).
1.2.3	Understands a variety of representations of whole numbers 0-100 (e.g., written numerals, objects in sets, number lines) and the relationship among them.
1.2.4	Understand the relationship of fractional parts, 1/3, 1/2, and 1/4 to a whole.
1.2.5	Understand the concept of place value through the 10's place (e.g., the relationship between a quantity of physical materials grouped by 10's and 1's and the corresponding written numeral).
2.2.1	Count numbers 0-1000 (e.g., by 1's, 2's, 5's, 10's, 100's).
2.2.2	Understands a variety of representations of whole numbers 0-1000 and the relationship among them (e.g., relating written numerals to the corresponding word, relating objects in sets to the corresponding numeral).
2.2.3	Read and write numerals 0-1000 (e.g., standard and expanded form).
2.2.4	Use variety of methods to compare and order whole numbers (e.g., ordinal numbers, "first" through "twentieth", symbols [$<$, $>$, $=$] and language, such as "between", "less than", "greater than", or "equal to").
2.2.5	Understand physical, verbal, and symbolic representations of the fractions of a whole number set (e.g., halves, fourths, thirds, eighths).
2.2.6	Understand concept of place value for whole numbers through hundreds

Manson Northwest Webster Math Standards K-12

	place (e.g., ones, tens, and hundreds).
3.2.1	Understands the concept of place values of whole numbers through the ten-thousands place (e.g., 1's, 10's, 100's, 1000's, 10,000's).
3.2.2.	Understands the concept of odd and even numbers.
3.2.3	Understands decimals expressed through the hundredths place (e.g., in money).
3.2.4a	Understands the comparison of whole numbers (e.g., to a 1000).
3.2.4b	Understands the comparison of fractions (e.g., with denominators of 12 or less).
3.2.4c	Understands the comparison of commonly used decimals (e.g., monetary amounts).
3.2.5	Count, read, and write numbers from 1,000 to 999,999.
4.2.1	Understand the concept of place values for whole numbers through the millions.
4.2.2	Understand the concept of rounding numbers expressed through the thousands (e.g., nearest thousand).
4.2.3	Compare fractions (e.g., for halves, thirds, fourths, eighths, tenths, sixteenths).
4.2.4	Identify fractions, decimals, mixed numbers, and whole numbers.
5.2.1	Understands equivalent forms of basic percents, fractions, and decimals (e.g., $\frac{1}{2} = 50\% = .5$).
5.2.2	Understand the concept of place value for numbers from the thousandths place to the hundred millions place.
6.2.1	Understand the relationships among factors, multiples, divisors, and products (e.g., prime factorization, GCF, LCM, rules of divisibility for 2,3,4,5,6,9,10).
6.2.2	Understand base-ten place value for whole numbers and decimals.
6.2.3	Understand the concept of proportion and the applications of proportional reasoning (e.g., scale, similarity, percentage, rate).
6.2.4	Read, write, order, and compare whole numbers, fractions, decimals, percents (using concrete and pictorial models).
7.2.1	Understand the characteristics and applications of scientific notation and exponential notation.
7.2.2	Understand the relationship among fractions, decimals, and percents.
7.2.3	Understand the concept of prime and composite numbers.
8.2.1	Understand the relationships among equivalent number representations (e.g., whole numbers, positive and negative integers, fractions, ratios, decimals, percents, scientific notation, exponential).
8.2.2	Understand the basic laws of exponents.
9-12.2.1	Use discrete structures (finite graphs, matrices, sequences) to represent and to solve problems [<i>Algebra II, Pre-Calculus, Geometry</i>].
9-12.2.2	Understand the properties of the real number system and its subsystems (irrational numbers, natural numbers, integers, rational numbers) [<i>Algebra I, II, Pre-Calculus, General Math, Geometry</i>].
9-12.2.3	Understand the properties and basic theorems of roots and exponents. [<i>Algebra I, II, Pre-Calculus, Geometry, General Math</i>]

Manson Northwest Webster Math Standards K-12

9-12.2.4	Understand appropriate use and corresponding notation of ratios, proportions decimals, and percents. [<i>Algebra I, General Math, Pre-Calculus</i>]
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Standard 3: Use basic and advanced procedures while performing the processes of computation.

CODE	BENCHMARK
K.3.1a	Demonstrates addition problems with real objects.
K.3.1b	Demonstrates subtraction problems with real objects.
K.3.2	Develop understanding of more, less and same.
1.3.1a	Knows basic addition facts to 10.
1.3.1b	Knows basic subtraction facts to 10.
1.3.2a	Add two digit numbers with no regrouping.
1.3.2b	Subtract two digit numbers with no regrouping.
2.3.1a	Knows addition facts through 20.
2.3.1b	Knows subtraction facts through 20.
2.3.2a	Solves two-digit addition with and without regrouping.
2.3.2b	Solves two-digit subtraction with and without regrouping.
2.3.3	Understand that addition and subtraction are inverse operations.
3.3.1	Knows basic multiplication facts 0-9.
3.3.2	Use estimating strategies to the nearest 10 or 100 (e.g., rounding/front-end).
3.3.3	Solve multi-step problems (story problems, parentheses).
3.3.4	Solve addition and subtraction problems up to 4 digit.
4.3.1	Multiply 3 digit by a two-digit number.
4.3.2	Use all four operations with money.
4.3.3a	Knows basic division facts 1-9.
4.3.3b	Divides by a 1-digit divisor with or without a remainder.
4.3.4	Understand the relationships and properties of the four operations.
4.3.5	Use estimation strategies (rounding/front end).
5.3.1	Use a variety of estimation strategies (e.g., front-end, standard rounding, order of magnitude, compatible numbers, compensation) to solve and to check reasonableness of results of computation problems involving whole numbers and decimals (e.g., money).
5.3.2a	Add, subtract, multiply, and divide whole numbers.
5.3.2b	Add, subtract, multiply, and divide decimals.
5.3.3a	Add, subtract, and simplify fractions and mixed numbers with like denominators.
5.3.3b	Add, subtract, and simplify fractions and mixed numbers with unlike denominators.
5.3.4	Use appropriate operation and method of calculation (e.g., mental math, paper and pencil, calculator, computer) to solve problems and to check the reasonableness of results.
6.3.1	Use a variety of estimation strategies (e.g., powers of ten, compatible

Manson Northwest Webster Math Standards K-12

	numbers, breaking numbers apart, front-end estimation, rounding) to solve and to check the reasonableness or results of computation problems involving whole numbers, fractions, and decimals.
6.3.2a	Add subtract, multiply, and divide whole numbers.
6.3.2b	Add, subtract, multiply and divide fractions and mixed numbers.
6.3.2c	Add, subtract, multiply and divide decimals.
6.3.3	Understand the correct order of operations for performing arithmetic computations.
7.3.1	Use a variety of estimation strategies to solve and to check reasonableness of computation problems involving whole numbers, fractions, decimals, and percents.
7.3.2	Understands computations with whole numbers, fractions, decimals and integers.
7.3.3	Uses basic conversions between fractions, percents, and decimals.
8.3.1	Use a variety of estimation strategies to solve and to check reasonableness of results of computation problems involving rational numbers.
8.3.2	Perform operations on rational numbers (e.g., add, subtract, multiply, divide, raised to a power, extract roots, take opposites and reciprocals).
8.3.3	Understand how different algorithms work for arithmetic computations and operations.
8.3.4	Find percents and percent of a number.
9-12.3.1	Add, subtract, multiply and divide rational expressions. <i>[All]</i>
9-12.3.2	Use a variety of operations on expressions containing real numbers (e.g., adding, subtracting, multiplying, dividing, finding a reciprocal, raising to a power, taking a root, taking opposites and reciprocals, determining absolute value). <i>[Algebra II, I]</i>
9-12.3.3	Solve problems using proportional reasoning (e.g., finding percent and percents of a number, finding percent increase/decrease, using data from tables and graphs, use of scale). <i>[General Math, Algebra I]</i>
9-12.3.4	Add, subtract, multiply, divide and simplify radical expressions containing positive rational numbers. <i>[Algebra II]</i>
9-12.3.5	Use a variety of approximation and estimation strategies to solve and to check reasonableness and results of a variety of problems.

Standard 4: Understand and apply basic and advanced properties of the concepts of measurement.

CODE	BENCHMARK
K.4.1	Recognizes value of coins and their names.
K.4.2	Read and write time to the hour.
K.4.3	Read a calendar to recognize days of week, sequence of days, months, and seasons.
K.4.4	Compares objects by size and weight.
1.4.1	Read and write time to the hour-half-hour.

Manson Northwest Webster Math Standards K-12

1.4.2	Count money by pennies, nickels, and dimes.
1.4.3	Demonstrate measurement using familiar objects (weight and length).
2.4.1	Understands time by 5-minute intervals.
2.4.2	Counting money using quarters and half-dollars.
2.4.3	Understanding temperature and how it is measured.
2.4.4	Can measure and compare length, height, and weight.
3.4.1	Can tell time to the nearest minute, a.m., and p.m.
3.4.2	Counts, writes, and computes money up to \$5.00.
3.4.3	Measure (perimeter) length, weight, and volume to the nearest whole unit.
4.4.1	Able to figure elapsed time.
4.4.2a	Count correct change.
4.4.2b	Make correct change.
4.4.3a	Uses appropriate units of measurement of length, weight, volume, temp. in the standard system to problem solve (ex. perimeter, area).
4.4.3b	Uses appropriate units of measurement of length, weight, volume, temp. in the metric system to problem solve (ex. perimeter, area).
5.4.1	Uses appropriate units of measure and basic conversions within the same system (dimensional analysis).
5.4.2	Understands and applies the basic measures of perimeter, area, volume.
5.4.3	Understand and manipulates the concept of time (add, subtract, convert).
6.4.1	Selects and uses appropriate tools for given measurement situations.
6.4.2	Understands and applies measures of perimeter, area, volume and circumference.
7.4.1	Understands and applies measures of surface area and volume of rectangular prisms, perimeter and area polygons.
8.4.1	Uses multi-step dimensional analysis when converting within a system of measurement.
8.4.2	Understands and applies measures of perimeter, area, volume, and circumference.
9-12.4.1	Solve real world problems involving 2- and 3-dimensional measures (e.g., area, volume, perimeter). <i>[Geometry]</i>
9-12.4.2	Solve problems involving rate as a measure (e.g., velocity). <i>[Algebra and Pre-Calculus]</i>
9-12.4.3	Determine precision and accuracy of measurement. <i>[Algebra II]</i>
9-12.4.4	Use the appropriate tools or units to determine measurement. <i>[General Math]</i>
9-12.4.5	Uses multi-step dimensional analysis to convert within and between systems of measurement.

Manson Northwest Webster Math Standards K-12

Standard 5: Understand and apply basic and advanced properties of the concepts of geometry.

CODE	BENCHMARK
K.5.1	Understand geometric patterns and relationships (similarities/differences among basic plane figures: circles, square, rectangle, and triangle).
K.5.2	Understand the common language of spatial sense (e.g., “inside”, “outside”, “between”, “above”, “below”, and “behind”).
K.5.3	Understands that patterns can be made by putting different shapes together or taking them apart.
1.5.1	Knows basic characteristics and properties of basic plane figures (e.g., a square has four equal sides, closed vs. open figures).
2.5.1	Understand properties of and similarities and differences among basic solid figures (e.g., spheres, cubes, rectangular prisms, cylinders, pyramids, and cones) and basic geometric terms (e.g., sides, edges, and corners) associated with these figures.
2.5.2	Understand what makes a figure symmetric.
3.5.1	Identifies plane figures and space figures: parallelogram, trapezoid, sphere, and cube.
3.5.2	Identifies space relationships (symmetry, congruence).
4.5.1	Understand characteristics of line (e.g., parallel, perpendicular, intersecting) and angles (e.g., right, acute, obtuse).
4.5.2	Understand basic properties of figures (e.g., two or three-dimensionality, symmetry, number of faces, type of angle).
4.5.3	Know basic geometric language for describing and naming shapes (e.g., trapezoid, parallelogram, cube, sphere, and polygon).
4.5.4	Understand basic geometric transformations in a plane and the relationships among transformed figures (e.g., symmetry, congruency, similarity, slide flip and turn).
5.5.1	Understands the characteristics of (classification) and relationships among (symmetry, congruence) points, lines, line segments, rays, planes, and polygons.
6.5.1	Understands the characteristics of (classification) and relationships among (parallel, perpendicular, congruence) lines, angles, polygons and circles.
7.5.1	Understands the characteristics of (classification) and relationships among (parallel, perpendicular, congruence) lines, angles, polygons, circles, trapezoids, parallelograms, triangles.
8.5.1	Understands the characteristics of (classification) and relationships among quadrilaterals, triangles, and circles.
9-12.5.1	Understand and use inductive and deductive reasoning to make observations about and to verify properties of and relationships among figures (e.g., the relationship among interior angles of parallel lines cut by a transversal). <i>[Geometry]</i>
9-12.5.2a	Know and use the Pythagorean Theorem and its converse to solve mathematical and real-world problems. <i>[Geometry, Algebra]</i>

Manson Northwest Webster Math Standards K-12

9-12.5.2b	Know and use the properties of special right triangles (e.g., 30 – 60 – 90 degree right triangles) to solve mathematical and real-world problems. <i>[Geometry, Algebra]</i>
9-12.5.3	Use properties of figures to solve mathematical and real-world problems (e.g., use understanding of arc and properties of circles to interpret information in circle graphs). <i>[Geometry]</i>
9-12.5.4	Use geometric constructions (e.g., the parallel to a line through a given point not on the line, line segment congruent to a given line segment) to complete simple proofs, to model, and to solve mathematical and real-world problems. <i>[Geometry]</i>
9-12.5.5	Understand that objects and relations in geometry correspond directly to objects and relations in algebra (e.g., a line in geometry corresponds to a set of ordered pairs satisfying an equation of the form $ax + by = c$) <i>[Geometry, Algebra II]</i>
9-12.5.6	To understand and use geometric transformations and their properties to solve problems. <i>[Geometry, Pre-Calculus]</i>
9-12.5.7	Understand the basic concepts of right triangle trigonometry (e.g., basic trig ratios, such a sine, cosine, and tangent) and use trigonometric ratio methods to solve mathematical and real-world problems. <i>[Pre-Calculus]</i>
9-12.5.8	Describe and use relationships among figures to solve mathematical and real-world problems (e.g., congruent and similar polygons, parallel and perpendicular lines). <i>[Geometry]</i>
9-12.5.9	Understand the characteristics and uses of vectors (e.g., representations of velocity and force) and basic operations on vectors (e.g., vector addition, scalar multiplication). <i>[Pre-Calculus]</i>
9-12.5.10	Compare, describe, and analyze two- and three-dimensional figures and their intersections with a plane. <i>[Geometry, Pre-Calculus]</i>

Standard 6: Understand and apply basic and advanced concepts of statistics and data analysis.

CODE	BENCHMARK
K.6.1	Collects and displays data using charts and graphs.
K.6.2	Interprets graphs (bar and pictograph).
1.6.1	Collect, organize, interpret data, and make predictions using simple charts, tables, and graphs.
2.6.1	Collects and organizes data on tables, graphs, and charts.
2.6.2	Reads and interprets tables, graphs, and charts.
3.6.1	Collect and organize data into graphs (bar, line, pictographs, circle), tables, and charts.
3.6.2	Read and make simple inferences from data displayed in diagrams, charts, bar graphs, and tables (e.g., generalize or draw simple conclusions).
4.6.1	Read and interpret simple tables, graphs (e.g., simple bar, line, and charts (e.g., pie).

Manson Northwest Webster Math Standards K-12

4.6.2	Use line, circle, and bar graphs with various scale increments to display information.
5.6.1	Use graphs and plots to display information.
6.6.1	Read and interpret tables, graphs, and charts.
7.6.1	Understand appropriate measures of statistics, (e.g., mean, median, mode, and range).
7.6.2	Make comparisons, predictions and inferences from data in a variety of formats.
8.6.1	Use appropriate format for organizing and displaying statistical data.
8.6.2	Understand faulty arguments, common errors, and misleading presentations of data.
9-12.6.1a	Understands and applies basic concepts of data collection, data analysis, and distribution. <i>[Pre-Calculus and Algebra II]</i>
9-12.6.1b	Understands and applies advanced concepts of data collection, data analysis, and distribution. <i>[Pre-Calculus and Algebra II]</i>
9-12.6.2	Understands appropriate methods for using data to make predictions (trends, surveys, samples). <i>[Algebra I, II, and Pre-Calculus]</i>
9-12.6.3	Selects and uses the best method of representing and describing a set of data (e.g., scatter plot, line graph, two-way table). <i>[Algebra I, II, Geometry, General Math, and Pre-Calculus]</i>
9-12.6.4	Understands measures of central tendency and variability (e.g., standard deviation, range, quartile deviation) and their applications to specific situations. <i>[Pre-Calculus, Algebra II, General Math]</i>

Standard 7: Understand and apply basic and advanced concepts of probability.

CODE	BENCHMARK
1.7.1	Understands that some events are certain and others are impossible.
2.7.1	Understands the basic concepts of likely and unlikely outcomes.
2.7.2	Understands that some events can be predicted fairly well, but others cannot because we do not always know everything that may affect an event.
3.7.1	Understands that some events are sure to happen, some events are sure not to happen, and some events may or may not happen.
3.7.2	Understands that the word “chance” refers to the likelihood of an event.
4.7.1	Determine the probability of simple events using basic experiments or simulations (e.g., using coins, spinners, and dice).
4.7.2	Use basic sample groups (e.g., all possible outcomes) to describe events.
5.7.1	Use a variety of simple models (tree diagrams, sample spaces, grids, tables) to represent the possible outcomes for probability situations.
6.7.1	Draw conclusions and make predictions from simple probability situations.
6.7.2	Determine probability using simulations or experiments.
7.7.1	Determine probability using math/theoretical models.
7.7.2	Understand the concepts of combinations and permutations.

Manson Northwest Webster Math Standards K-12

7.7.3	Understand how predictions are based on data and probabilities.
8.7.1	Understand that the measure of certainty in a given situation depends on a number of factors (sample size, method of data collection, what is known about the situation, how current data are).
8.7.2	Understand the difference between theoretical and experimental probability.
9-12.7.1	Understands the basic concepts of probability and applies them to real-world situations. <i>[Algebra I, II, Pre-Calculus, General Math]</i>
9-12.7.2	Understands the differences between experimental and theoretical probability techniques and uses the appropriate method to determine probabilities. <i>[Algebra I, II, Pre-Calculus, General Math]</i>
9-12.7.3	Determines the probability and understands the concepts of independent and dependent events. <i>[Algebra I, II, Pre-Calculus, General Math]</i>

Standard 8: Understand and apply basic and advanced properties of functions and algebra.

CODE	BENCHMARK
K.8.1	Extend and create simple repeating patterns (e.g., with physical objects, geometric shapes).
1.8.1	Understand simple repeating and growing patterns.
1.8.2	Solve simple open sentences involving addition and subtraction to 12.
1.8.3	Understand that regularities exist in a variety of contexts (e.g., events, designs, shapes, sets of numbers).
2.8.1	Understand and extend a wide variety of patterns (linear and non-linear).
2.8.2	Understand basic number patterns (skip counting).
2.8.3	Use variables (e.g., letters, boxes, or other symbols) and number sentences to represent solutions to problems (e.g., $7 + N = 23$).
2.8.4	Solve simple number sentences involving addition and subtraction (e.g., sentences involving one or both operations).
3.8.1	Solve number sentences involving basic multiplication and division facts.
3.8.2	Understand the concepts “elements” and “repetitions” in a pattern (e.g., ABB, ABB has three elements and two repetitions).
3.8.3	Use a variety of methods and tools to represent patterns and relationships.
3.8.4	Understand the concept of an equation (e.g., a number sentence that shows two quantities that are equal).
4.8.1	Solve open sentences involving multiplication and division ($N + 17 = 23$).
4.8.2	Use symbols of equality (=) and inequality (<, >).
4.8.3	Understand that the same pattern can be represented in different ways (e.g., using words, pictures, and numbers).
4.8.4	Understand the characteristics and features of coordinates and the coordinate plane (e.g., the horizontal axis and vertical axis).

Manson Northwest Webster Math Standards K-12

5.8.1	Identify patterns and explain the rule that the pattern is generated from.
6.8.1	Solve simple (addition, subtraction) equations with one variable using informal or formal methods.
7.8.1	Understand basic algebraic terms and symbols (e.g., equation, inequality, variable, exponent).
8.8.1	Use a coordinate grid for a variety of representations (e.g., number, figures, points, lines).
8.8.2	Solve simple inequalities with rational number solutions, using concrete and informal methods.
8.8.3	Solve two-step equations of one variable using informal and formal methods.
9-12.8.1a	Understand properties of linear graphs and the relationships between a graph and its corresponding expression (e.g., maximum and minimum points, slopes, intercepts). <i>[Algebra I, II, Geometry, Pre-Calculus]</i>
9-12.8.1b	Understand properties of nonlinear graphs and the relationships between a graph and its corresponding expression (e.g., maximum and minimum points, slopes, intercepts). <i>[Algebra I, II, Geometry, Pre-Calculus]</i>
9-12.8.2	Understand the general properties and characteristics of many types of basic functions and their corresponding graphs (e.g., notation and terminology of linear, quadratic, step, absolute value). <i>[Algebra I, II]</i>
9-12.8.3	Understand the general properties and characteristics of many types of trigonometric functions and their corresponding graphs (e.g., sine, cosine). <i>[Pre-Calculus]</i>
9-12.8.4	Understand the general properties and characteristics of many types of advanced functions and their corresponding graphs (e.g., exponential, logarithmic). <i>[Pre-Calculus]</i>
9-12.8.5a	Use a variety of methods (e.g., with graphs, algebraic methods, and matrices) to solve linear and quadratic equations. <i>[Algebra I, II, Pre-Calculus]</i>
9-12.8.5b	Use a variety of methods (e.g., with graphs, algebraic methods, and matrices) to solve linear inequalities. <i>[Algebra I, II, Pre-Calculus]</i>
9-12.8.5c	Use a variety of methods (e.g., with graphs, algebraic methods, and matrices) to solve systems of equations and inequalities. <i>[Algebra I, II, Pre-Calculus]</i>
9-12.8.6	Understand the basic concept of complex numbers (e.g., conjugate). <i>[Algebra II, Pre-Calculus]</i>
9-12.8.7	Understand various applications (compound interest) of formal notation (e.g., sigma notation, factorial representation). <i>[Pre-Calculus]</i>