

<p>Concept MA – M – 1.1.1 Rational numbers (integers, fractions, decimals, percents)</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M – 1.1.2 Irrational numbers (square roots and π only)</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M – 1.1.3 Meaning of proportion (equivalent ratios)</p> <p><i>8th Grade Assessment</i></p>
<p>Concept MA – M – 1.1.4 Place value of whole numbers and decimals</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M – 1.1.5 Positive whole number exponents</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA-M-1.1.6 Representation of numbers and operations in a variety of equivalent forms using models, diagrams, and symbols (e.g., number lines, 10 by 10 grids, rectangular arrays, number sentences)</p> <p><i>8th Grade Assessment</i></p>
<p>Skill MA-M-1.2.1 Add, subtract, multiply, and divide rational numbers (fractions, decimals, percents, integers) to solve problems</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-1.2.2 Compute (e.g., estimate, use pencil and paper, use calculator, round, use mental math) large and small quantities and check for reasonable and appropriate computational results</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-1.2.3 Apply ratios, proportional reasoning, and percents (e.g., constant rate of change, unit pricing)</p> <p><i>8th Grade Assessment</i></p>
<p>Skill MA-M-1.2.4 Identify and use number theory concepts[prime numbers, prime factorization, composite numbers, factors, multiples, divisibility, greatest common factor (GCF), least common multiple (LCM) to solve problems.</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-1.2.5 Apply order of operations</p> <p><i>8th Grade Assessment</i></p>	<p>Relationship MA-M-1.3.1 How whole numbers, natural numbers, integers, fractions, decimals, percents, and irrational numbers (square roots and π only) relate to each other (e.g., convert between forms of rational numbers, compare, order)</p> <p><i>8th Grade Assessment</i></p>

<p>Relationship MA-M-1.3.2 How properties such as commutative, associative, distributive, and identities show relationships among operations and may be used to justify steps in solving problems</p> <p><i>8th Grade Assessment</i></p>	<p>Relationship MA-M-1.3.3 How operations (addition and subtraction; multiplication and division; squaring and taking the square root of a number) are inversely related.</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA-M-2.1.1. Basic geometric elements that include points, segments, rays, lines, angles, and planes</p> <p><i>8th Grade Assessment</i></p>
<p>Concept MA-M-2.1.2 Two-dimensional shapes including circles, regular polygons, quadrilaterals (square, rectangle, rhombus, parallelogram, trapezoid), and triangles (acute, obtuse, right, equilateral, scalene, isosceles)</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M-2.1.3 Common three-dimensional shapes including spheres, cones, cylinders, prisms (with polygonal bases), and pyramids (with polygonal bases)</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M-2.1.4 Congruence, symmetry, and similarity</p> <p><i>8th Grade Assessment</i></p>
<p>Concept MA-M-2.1.5 U.S. Customary and metric units of measurement</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-2.2.1 Identify characteristics (e.g., sides, vertices, angles, faces, edges, congruent parts) of two-dimensional and three-dimensional shapes</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-2.2.2 Use appropriate tools and strategies (e.g., combining and subdividing shapes) to find measures of both regular and irregular shapes</p> <p><i>8th Grade Assessment</i></p>
<p>Skill MA-M-2.2.3 Move shapes in a coordinate plane: translate (slide), rotate (turn), reflect (flip), and dilate (magnify, reduce)</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA –M – 2.2.4 Estimate measurements in standard units</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-2.2.5 Use formulas to find area and perimeter of triangles and quadrilaterals, area and circumference of circles, and surface area and volume of rectangular prisms</p> <p><i>8th Grade Assessment</i></p>

<p>Skill MA-M-2.2.6 Estimate and determine measurement of angles</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-2.2.7 Use Pythagorean theorem to find hypotenuse</p> <p><i>8th Grade Assessment</i></p>	<p>Relationship MA-M- 2.3.1 How measurements and measurement formulas are related or different (perimeter and area; rate, time, and distance; circumference and area of a circle)</p> <p><i>8th Grade Assessment</i></p>
<p>Relationship MA-M-2.3.2 How two-dimensional and three-dimensional figures are related as seen in different orientations (e.g., top view, side view, three-dimensional shapes drawn on isometric dot paper)</p> <p><i>8th Grade Assessment</i></p>	<p>Relationship MA-M-2.3.3 How proportional figures are related (scale drawings, similar figures)</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M – 3.1.1 Meaning of central tendency (mean, median, mode)</p> <p><i>8th Grade Assessment</i></p>
<p>Concept MA – M– 3.1.2 Meaning of dispersion (range, cluster, gaps, outliers)</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M– 3.1.3 Characteristics and appropriateness of graphs (e.g., bar, line, circle), and plots (e.g., line, stem-and-leaf, box-and-whiskers, scatter)</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-3.2.1 Organize, represent, analyze, and interpret sets of data</p> <p><i>8th Grade Assessment</i></p>
<p>Skill MA-M-3.2.2 Construct and interpret displays of data (e.g., table, circle graph, line plot, stem-and-leaf plot, box-and-whiskers plot)</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-3.2.3 Find mean, median, mode, and range; recognize outliers, gaps, and clusters of data</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA-M-3.2.4 Calculate theoretical probabilities and tabulate experimental results from simulations</p> <p><i>8th Grade Assessment</i></p>

<p>Skill MA – M – 3.2.5 Make predictions and draw conclusions from statistical data and probability experiments</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA – M – 3.2.6 Use counting techniques, tree diagrams, area models, and tables to solve probability problems</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA – M – 3.2.7 Represent probabilities in multiple ways such as fractions, decimals, percents, and area models</p> <p><i>8th Grade Assessment</i></p>
<p>Relationship MA – M – 3.3.1 How different representations of data (e.g. tables, graphs, diagrams, plots) are related</p> <p><i>8th Grade Assessment</i></p>	<p>Relationship MA – M – 3.3.2 How theoretical probability and experimental probability are related</p> <p><i>8th Grade Assessment</i></p>	<p>Relationship MA – M – 3.3.3 How data gathering, bias issues, faulty data analysis, and misleading representations affect interpretations and conclusions about data (e.g., changing the scale on a graph, polling only a specific group of people, using limited or extremely small sample size)</p> <p><i>8th Grade Assessment</i></p>
<p>Skill MA – M – 3.3.4 How probability and statistics are used to make predictions and/or draw conclusions</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M – 4.1.1 Variables, equations, inequalities, and algebraic expressions</p> <p><i>8th Grade Assessment</i></p>	<p>Concept MA – M – 4.1.2 Functions (e.g., the relationship between time and cost of some long distance phone calls, $y = 2x + 1$) through tables, graphs, verbal rules, and algebraic notations</p> <p><i>8th Grade Assessment</i></p>
<p>Concept MA – M – 4.1.3 Rectangular (Cartesian) coordinate system/grid and ordered pairs</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA – M – 4.2.1 Simplify numerical and algebraic expressions</p> <p><i>8th Grade Assessment</i></p>	<p>Skill MA – M – 4.2.2 Solve simple equations and inequalities</p> <p><i>8th Grade Assessment</i></p>

<p><i>Skill</i> MA – M – 4.2.3 Model equations and inequalities concretely (e.g., algebra tiles or blocks), pictorially (e.g., graphs, tables), and abstractly (e.g., equations)</p> <p><i>8th Grade Assessment</i></p>	<p><i>Skill</i> MA – M – 4.2.4 Use variables to describe numerical patterns</p> <p><i>8th Grade Assessment</i></p>	<p><i>Skill</i> MA – M-4.2.5 Represent and use functions through tables, graphs, verbal rules, and equations</p> <p><i>8th Grade Assessment</i></p>
<p><i>Relationship</i> MA – M – 4.3.1 How patterns (e.g., numbers, pictures, words) are alike and different</p> <p><i>8th Grade Assessment</i></p>	<p><i>Relationship</i> MA – M – 4.3.2 How rules involving number patterns can be explained</p> <p><i>8th Grade Assessment</i></p>	