

Grade	Objective	Skill	ACT	KENTUCKY
6	Statistics	Mean, Median, Mode and Range	Math; Pre-Algebra	MA-.06-4.2.1
6	Statistics	Frequency Tables and Line Plots	Math; Pre-Algebra	MA-06-4.1.1
6	Statistics	Bar Graphs	Math; Pre-Algebra	MA-06-4.1.1
6	Statistics	Coordinate Graphing in Four Quadrants	Math; Pre-Algebra	MA-06-3.3.1
6	Statistics	Scatterplots	Math; Pre-Algebra	MA-06-4.1.1
6	Statistics	Translations and Reflections on a Coordinate Plane	Math; Pre-Algebra	MA-06-3.2.2
6	Statistics	Line graphs	Math; Pre-Algebra	MA-06-4.1.1
6	Statistics	Stem Plots (Stem-and-Leaf)	Math; Pre-Algebra	MA-06-4.1.1
6	Statistics	Venn Diagrams	Math; Pre-Algebra	MA-06-4.1.1
6	Statistics	Sample Spaces, Tree Diagram	Math; Pre-Algebra	MA-06-4.1.1
6	Statistics	Probability of a Simple Event and Its Complement	Math; Pre-Algebra	MA-06-4.4.2
6	Statistics	Data Analysis and Appropriate Graphical Display	Math; Pre-Algebra	MA-06-4.1.4
6	Measurement	Decimal Place Value	Math; Pre-Algebra	MA-06-1.1.3
6	Measurement	Comparing and Ordering Decimals	Math; Pre-Algebra	MA-06-1.1.3
6	Measurement	Rounding Decimals	Math; Pre-Algebra	MA-06-1.1.3
6	Measurement	Length and Mass using Metric Units	Math; Pre-Algebra	MA-06-2.1.1
6	Measurement	Perimeter	Math; Pre-Algebra	MA-06-2.1.1
6	Measurement	Scale Drawings	Math; Pre-Algebra	MA-08-3.1.4
6	Measurement	Time and Temperature	Math; Pre-Algebra	MA-06-1.1.2
6	Measurement	Application Problems involving Length, Mass, Time, and Temperature	Math; Pre-Algebra	MA-06-1.1.2
6	Algebraic Thinking	Whole Number Operations and Estimation	Math; Pre-Algebra	MA-06-1.2.1
6	Algebraic Thinking	Vocabulary of Exponents	Math; Elementary Algebra	MA-07.1.3.1
6	Algebraic Thinking	Exponential Notation	Math; Elementary Algebra	MA-07.1.3.1
6	Algebraic Thinking	Order of Operations	Math; Elementary Algebra	MA-06-1.3.1
6	Algebraic Thinking	Commutative, Associative, and Distributive Properties	Math; Elementary Algebra	MA-06-1.5.2

6	Algebraic Thinking	Algebraic Expressions and Equations	Math; Elementary Algebra	MA-06-5.2.1
6	Algebraic Thinking	Patterns in Sequences of Numbers	Math; Intermediate Algebra	MA-06-5.1.1
6	Algebraic Thinking	Relationships Among Equation, Table, and Graph	Math; Intermediate Algebra	MA-06-4.1.2/MA-6-5.1.4
6	Decimal Operations	Addition and Subtraction of Decimals	Math; Pre-Algebra	MA-06-1.3.1
6	Decimal Operations	Multiplication of Decimals	Math; Pre-Algebra	MA-06-1.3.1
6	Decimal Operations	Division of Decimals	Math; Pre-Algebra	MA-06-1.3.1
6	Decimal Operations	Multiplication and Division by Powers of Ten	Math; Pre-Algebra	MA-06-1.3.1
6	Decimal Operations	Metric Conversions	Math; Pre-Algebra	MA-06-2.2.1
6	Decimal Operations	Application of Decimal Operations in Real World Situations Including Measurement	Math; Pre-Algebra	MA-06-1.2.1
6	Foundation for Fractions	Prime Factorization With and Without Exponents	Math; Pre-Algebra	MA-06-1.5.1
6	Foundation for Fractions	Greatest Common Factor Using Prime Factorization	Math; Pre-Algebra	MA-06-1.5.1
6	Foundation for Fractions	Divisibility Rules	Math; Pre-Algebra	MA-06-1.5.1
6	Foundation for Fractions	Least Common Multiple Using Prime Factorization	Math; Pre-Algebra	MA-06-1.5.1
6	Foundation for Fractions	Equivalent Fractions	Math; Pre-Algebra	MA-06-1.1.2
6	Foundation for Fractions	Comparing and Ordering Fractions Including Improper Fractions and Mixed Numbers	Math; Pre-Algebra	MA-06-1.1.3
6	Foundation for Fractions	Changing Decimals to Fractions and Fractions to Decimals	Math; Pre-Algebra	MA-06-1.1.3
6	Fraction Operations	Addition and Subtraction of Proper Fractions with Like and Unlike Denominators	Math; Pre-Algebra	MA-06-1.3.1
6	Fraction Operations	Addition and Subtraction of Mixed Numbers	Math; Pre-Algebra	MA-06-1.3.1
6	Fraction Operations	Multiplication of Proper Fractions	Math; Pre-Algebra	MA-06-1.3.1

6	Fraction Operations	Multiplication of Mixed Numbers	Math; Pre-Algebra	MA-06-1.3.1
6	Fraction Operations	Division of Proper Fractions	Math; Pre-Algebra	MA-06-1.3.1
6	Fraction Operations	Division of Mixed Numbers	Math; Pre-Algebra	MA-06-1.3.1
6	Fraction Operations	Dimensional Analysis	Math; Pre-Algebra	N/A
6	Fraction Operations	Application of Fractions in Real World Situations	Math; Pre-Algebra	MA-06-1.1.2/MA-06-1.2.1
6	Ratio, Proportion, and Percent	Ratios and Rates	Math; Pre-Algebra	MA-06-1.4.1
6	Ratio, Proportion, and Percent	Rate of Change	Math; Pre-Algebra	MA-06-1.4.1
6	Ratio, Proportion, and Percent	Proportions	Math; Pre-Algebra	MA-06-1.4.1
6	Ratio, Proportion, and Percent	Application of Proportions in Real World Situations Including Measurement, Unit Cost, and Scale Drawings	Math; Pre-Algebra	MA-06-1.4.1
6	Ratio, Proportion, and Percent	Meaning of Percent	Math; Pre-Algebra	MA-06-1.1.3
6	Ratio, Proportion, and Percent	Converting Among Whole Numbers, Fractions, Decimals, and Percents	Math; Pre-Algebra	MA-06-1.1.3
6	Ratio, Proportion, and Percent	Percent of a Number	Math; Pre-Algebra	MA-06-1.1.3
6	Ratio, Proportion, and Percent	Application of Circle Graphs to Display Data	Math; Pre-Algebra	MA-06-4.1.1
6	Ratio, Proportion, and Percent	Application of Percent in Real World Situations	Math; Pre-Algebra	MA-06-1.2.1
6	Foundation for Geometry	Identification of Point, Line, Line Segment, and Ray	Math; Coordinate Geometry	MA-06-3.1.1
6	Foundation for Geometry	Naming, Measuring, Drawing, and Classifying Angles	Math; Coordinate Geometry	MA-06-3.1.1
6	Foundation for Geometry	Classification of Triangles by Sides and Angles	Math; Coordinate Geometry	MA-06-3.1.2
6	Foundation for Geometry	Properties of a Circle	Math; Coordinate Geometry	MA-07-3.1.2
6	Foundation for Geometry	Classification of Quadrilaterals	Math; Plane Geometry	MA-06-3.1.3
6	Foundation for Geometry	Classification of Polygons	Math; Plane Geometry	MA-06-3.1.3

6	Foundation for Geometry	Congruent and Similar Figures	Math; Plane Geometry	MA-06.3.1.2
6	Foundation for Geometry	Application of Proportional Reasoning to Similar Figures	Math; Plane Geometry	MA-06.3.1.4
6	Geometric Measurement	Investigation of Area of Parallelogram, Triangle, and Trapezoid from Area of a Rectangle	Math; Coordinate Geometry	MA-06-2.1.1
6	Geometric Measurement	Circumference and Area of a Circle	Math; Coordinate Geometry	MA-06-3.1.1
6	Geometric Measurement	Vocabulary and Classification of Polyhedrons	Math; Coordinate Geometry	MA-06-3.1.2
6	Geometric Measurement	Surface Area and Volume of a Prism	Math; Coordinate Geometry	MA-HS-2.1.1
6	Geometric Measurement	Application of Time, Temperature, Area, Surface Area, and Volume in Real World Situations	Math; Coordinate Geometry	MA-HS-2.1.1
6	Integers	Comparing and Ordering Integers	Math; Pre-Algebra	MA-07-1.3.1
6	Integers	Addition of Integers	Math; Pre-Algebra	MA-07-1.3.1
6	Integers	Subtraction of Integers	Math; Pre-Algebra	MA-07-1.3.1
6	Integers	Application of Integers in Real World Situations	Math; Pre-Algebra	MA-07-1.3.1
7	Probability	Tree Diagrams, Sample Space, and Counting Principle	Math; Pre-Algebra	MA-07-4.4.1
7	Probability	Permutations and Combinations	Math; Pre-Algebra	MA-HS-4.4.2
7	Probability	Independent Events	Math; Pre-Algebra	MA-07-4.4.2
7	Probability	Dependent Events	Math; Pre-Algebra	MA-07-4.4.2
7	Probability	Simulations of an Event	Math; Pre-Algebra	MA-07-4.4.3
7	Statistics	Application of Measures of Central Tendency and Range	Math; Pre-Algebra	MA-08.4.2.1
7	Statistics	Applications of Bar Graphs, Line Plots, Line Graphs, Stem Plots, and Circle Graphs	Math; Pre-Algebra	MA-07-4.1.1
7	Statistics	Box Plots (Box-and-Whiskers)	Math; Pre-Algebra	MA-08-4.1.1
7	Statistics	Histograms	Math; Pre-Algebra	MA-08-4.1.1
7	Statistics	Venn Diagrams	Math; Pre-Algebra	MA-07.4.1.1
7	Statistics	Choosing Appropriate Graphical Displays for Analysis of Data	Math; Pre-Algebra	MA-07-4.1.4

7	Decimal and Fraction Operations	Application Problems Involving Comparing, Ordering, and Converting Among Whole Numbers	Math; Pre-Algebra	MA-07.1.1.3
7	Decimal and Fraction Operations	Applications of Addition and Subtraction of Decimals and Fractions in Real World Situations	Math; Pre-Algebra	MA-07.1.3.1
7	Decimal and Fraction Operations	Multiplication and Division of Decimals	Math; Pre-Algebra	MA-07-1.3.1
7	Decimal and Fraction Operations	Multiplication and Division of Fractions	Math; Pre-Algebra	MA-07-1.3.1
7	Decimal and Fraction Operations	Applications of Multiplication and Division of Decimals and Fractions in Real World Situations	Math; Pre-Algebra	MA-07-1.2.1
7	Decimal and Fraction Operations	Customary and Metric Measurement and Conversions	Math; Pre-Algebra	MA-07-2.2.1
7	Algebraic Thinking	Exponential Vocabulary and Notation	Math; Elementary Algebra	MA-07-1.3.1
7	Algebraic Thinking	Exploration of Positive and Negative Exponents	Math; Elementary Algebra	MA-HS-1.3.1
7	Algebraic Thinking	Scientific Notation	Math; Elementary Algebra	MA-HS-1.1.3
7	Algebraic Thinking	Application of Scientific Notation in Real World Situations	Math; Elementary Algebra	MA-07-1.3.1
7	Algebraic Thinking	Order of Operations	Math; Elementary Algebra	MA-07-1.3.1
7	Algebraic Thinking	Distributive Property	Math; Elementary Algebra	MA-08-1.5.2
7	Algebraic Thinking	Writing Algebraic Expressions	Math; Elementary Algebra	MA-07-5.2.1
7	Algebraic Thinking	Simplifying Algebraic Expressions	Math; Elementary Algebra	MA-08-5.2.1
7	Algebraic Thinking	Relationship Between Terms and Their Position in an Arithmetic Sequence	Math; Elementary Algebra	MA-08-5.1.1
7	Algebraic Thinking	Using Variables in Formulas	Math; Elementary Algebra	MA-07-5.2.1
7	Integers	Applications of Ordering and Comparing Integers in Real World Situations	Math; Pre-Algebra	MA-07-1.1.3
7	Integers	Integers and Absolute Value	Math; Pre-Algebra	MA-HS-1.3.1

7	Integers	Application of Addition and Subtraction of Integers in Real World Situations	Math; Pre-Algebra	MA-07.1.3.3
7	Integers	Multiplication and Division of Integers and Applications in Real World Situations	Math; Pre-Algebra	MA-08-1.3.1
7	Equations and Inequalities	Writing an Expression or Equation	Math; Intermediate Algebra	MA-07-5.2.1
7	Equations and Inequalities	Solving Equations Using Addition and Subtraction	Math; Intermediate Algebra	MA-07-5.3.1
7	Equations and Inequalities	Solving Equations Using Multiplication	Math; Intermediate Algebra	MA-07-5.3.1
7	Equations and Inequalities	Solving Equations Using Division	Math; Intermediate Algebra	MA-07-5.3.1
7	Equations and Inequalities	Solving Two-Step Equations	Math; Intermediate Algebra	MA-07-5.3.1
7	Equations and Inequalities	Writing and Solving Two-Step Equations from a Real World Situation	Math; Intermediate Algebra	MA-07-5.3.1
7	Equations and Inequalities	Solving Equations Involving Perimeter, Circumference, or Area	Math; Intermediate Algebra	MA-07-5.3.1
7	Equations and Inequalities	Writing Inequalities	Math; Intermediate Algebra	MA-07-5.3.1
7	Equations and Inequalities	Solving Inequalities Using Addition and Subtraction	Math; Intermediate Algebra	MA-07-5.3.1
7	Equations and Inequalities	Solving Inequalities Using Multiplication and Division	Math; Intermediate Algebra	MA-07-5.3.1
7	Coordinate Graphing	Vocabulary of and Graphing in the Coordinate Plane	Math; Coordinate Geometry	MA-07-3.3.1
7	Coordinate Graphing	Reading and Interpreting a Graph	Math; Coordinate Geometry	MA-07-3.3.1
7	Coordinate Graphing	Dependent and Independent Relationships	Math; Coordinate Geometry	MA-07-3.3.1
7	Coordinate Graphing	Relationships Among Equation, Table, Graph, and Verbal Description	Math; Coordinate Geometry	MA-08-4.1.2
7	Coordinate Graphing	Making Scatterplots Using Them to Draw Conclusions and Make Predictions	Math; Pre-Algebra	MA-07-4.1.1
7	Ratio, Proportion, and Percent	Ratios and Rates in Real World Situations Including Graphing	Math; Pre-Algebra	MA-HS-1.4.1
7	Ratio, Proportion, and Percent	Writing and Solving Proportions	Math; Pre-Algebra	MA-HS-1.4.1
7	Ratio, Proportion, and Percent	Using Relationships Between Fractions, Decimals, and Percents in Real World Situations	Math; Pre-Algebra	MA-07-1.2.1

7	Ratio, Proportion, and Percent	Percent of a Number	Math; Pre-Algebra	MA-07-1.2.1
7	Ratio, Proportion, and Percent	Percent Increase and Decrease	Math; Pre-Algebra	MA-07-1.2.1
7	Ratio, Proportion, and Percent	Applications of Proportion and Percent in Real World Situations	Math; Pre-Algebra	MA-HS-1.4.1
7	Geometric Figures	Angle Relationships	Math; Coordinate Geometry	MA-07-3.1.2
7	Geometric Figures	Angle/Parallel Line Relationships	Math; Coordinate Geometry	MA-07-3.1.2
7	Geometric Figures	Application of Proportions to Similar Polygons	Math; Coordinate Geometry	MA-07-3.1.4
7	Geometric Figures	Reflections, Translations, Rotations, and Dilations in the Coordinate Plane	Math; Coordinate Geometry	MA-08-3.2.2
7	Right Triangle Measurement	Finding and Approximating Square Roots	Math; Elementary Algebra	MA-HS-1.3.1
7	Right Triangle Measurement	Rational and Irrational Numbers	Math; Elementary Algebra	MA-08.1.1.1
7	Right Triangle Measurement	Pythagorean Theorem	Math; Plane Geometry	MA-08-2.1.6
7	Right Triangle Measurement	Application of Irrational Numbers and Pythagorean Theorem in Real World Situations	Math; Plane Geometry	MA-08-2.1.6
7	Measurement in Geometric Solids	Application of Areas in Real World Situations	Math; Plane Geometry	MA-07-3.1.2
7	Measurement in Geometric Solids	Sketching Solids from Front, Top, and Side Views	Math; Plane Geometry	MA-07-3.1.3
7	Measurement in Geometric Solids	Perspective Drawing	Math; Plane Geometry	MA-07-3.1.3
7	Measurement in Geometric Solids	Classifying Solids	Math; Plane Geometry	MA-07-3.1.3
7	Measurement in Geometric Solids	Making Nets for Surface Area of Solids	Math; Plane Geometry	MA-08-2.1.5
7	Measurement in Geometric Solids	Surface Area of Rectangular Prisms and Cylinders	Math; Plane Geometry	MA-08-2.1.5
7	Measurement in Geometric Solids	Surface Area of Pyramids and Cones	Math; Plane Geometry	MA-08-2.1.5
7	Measurement in Geometric Solids	Volume of Prisms, Cylinders, Pyramids, Cones, and Spheres	Math; Plane Geometry	MA-08-2.1.4
7	Measurement in Geometric Solids	Application of Surface Areas, and Volumes in Real World Situations	Math; Plane Geometry	MA-08-2.1.5
7	Measurement in Geometric Solids	Effect on Perimeter, Area, and Volume when the Dimensions of a Solid Are Changed Proportionally	Math; Plane Geometry	MA-08-3.1.4
Algebra I	Algebraic Foundation	Modeling and solving real world problems using rational numbers	Math; Elementary Algebra	MA-08-1.1.1

Algebra I	Algebraic Foundation	Writing, evaluating, and simplifying numerical and algebraic expressions	Math; Elementary Algebra	MA-08-1.3.1
Algebra I	Algebraic Foundation	Developing positive, negative, and zero exponents from patterns	Math; Elementary Algebra	MA-HS-5.2.1
Algebra I	Algebraic Foundation	Exponential notation including scientific notation	Math; Elementary Algebra	MA-HS-1.1.3
Algebra I	Algebraic Foundation	Properties of numbers, axioms, and theorems and application to algebraic expressions	Math; Elementary Algebra	MA-HS-3.4.1
Algebra I	Foundation for Functions	Data collection, interpretation, and application	Math; Intermediate Algebra	MA-08-4.1.1
Algebra I	Foundation for Functions	Graphical displays including scatterplots, stemplots, and boxplots	Math; Intermediate Algebra	MA-08-4.1.1
Algebra I	Foundation for Functions	Determining if a relation is a function from ordered pairs, table or graph	Math; Intermediate Algebra	MA-HS-5.1.1
Algebra I	Foundation for Functions	Domain and range of functions and relations	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra I	Foundation for Functions	Identifying increasing, decreasing, and constant functions or pieces of functions	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra I	Foundation for Functions	Determining a reasonable domain and range for discrete or continuous functions and in real world settings	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra I	Equations and Inequalities	Using properties of equality to solve equations	Math; Intermediate Algebra	MA-HS-1.3.1
Algebra I	Equations and Inequalities	Using equations to model, write, and solve real world problems	Math; Intermediate Algebra	MA-HS-5.3.1
Algebra I	Equations and Inequalities	Graphing and solving one variable inequalities	Math; Intermediate Algebra	MA-HS-5.3.1
Algebra I	Equations and Inequalities	Using inequalities to model, write, and solve real world problems	Math; Intermediate Algebra	MA-HS-5.3.1
Algebra I	Equations and Inequalities	Confirming zeros of an equation using a graphing utility	Math; Intermediate Algebra	MA-HS-5.3.1
Algebra I	Linear equations	Rate of change and slope from two points, equation, or graph	Math; Coordinate Geometry	MA-08-1.4.1
Algebra I	Linear equations	Determining y-intercept from equation or graph	Math; Coordinate Geometry	MA-HS-5.1.5
Algebra I	Linear equations	Graphs of linear functions	Math; Coordinate Geometry	MA-HS-5.1.5

Algebra I	Linear equations	Writing an equation of a line in point slope, slope intercept, and standard forms	Math; Coordinate Geometry	MA-HS-5.1.5
Algebra I	Linear equations	Writing the equation of a line parallel or perpendicular to a given line	Math; Coordinate Geometry	MA-HS-5.1.5
Algebra I	Linear equations	Writing the equation of a line that models given data	Math; Coordinate Geometry	MA-HS-5.1.1
Algebra I	Systems of equations and inequalities	Solutions of systems of equations in two variables by graphing, substitution, and elimination	Math; Intermediate Algebra	MA-HS-5.3.4
Algebra I	Systems of equations and inequalities	Solutions of systems of equations using a graphic utility	Math; Intermediate Algebra	MA-HS-5.3.4
Algebra I	Systems of equations and inequalities	Modeling and solving real world problems using systems of equations	Math; Intermediate Algebra	MA-HS-5.3.4
Algebra I	Systems of equations and inequalities	Unions and intersections of sets	Math; Intermediate Algebra	N/A
Algebra I	Systems of equations and inequalities	Absolute value equations and inequalities	Math; Intermediate Algebra	MA-HS-5.3.1
Algebra I	Systems of equations and inequalities	Solving and graphing linear inequalities and systems of linear inequalities	Math; Intermediate Algebra	MA-HS-5.3.1
Algebra I	Systems of equations and inequalities	Application of systems in real world situations	Math; Intermediate Algebra	MA-HS-5.3.4
Algebra I	Radicals	Square roots of numerical and variable expressions	Math; Elementary Algebra	MA-08-1.1.1
Algebra I	Radicals	Simplifying radical expressions	Math; Elementary Algebra	MA-08-1.1.3
Algebra I	Radicals	Pythagorean Theorem applications	Math; Plane Geometry	MA-08-2.1.6
Algebra I	Radicals	Radical Equations	Math; Elementary Algebra	MA-HS-5.2.2
Algebra I	Quadratics	Solving quadratic equations by factoring, using the quadratic formula, and using a graphing utility (calculator)	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra I	Quadratics	Modeling and solving problems using quadratic equations	Math; Intermediate Algebra	MA-HS-5.3.6
Algebra I	Nonlinear Functions	Solving rational and radical equations	Math; Intermediate Algebra	MA-HS-5.2.2
Algebra I	Polynomials	Properties of polynomials	Math; Intermediate Algebra	MA-HS-5.2.2
Algebra I	Polynomials	Operations with polynomials	Math; Intermediate Algebra	MA-HS-5.2.3

Algebra I	Polynomials	Factoring polynomials	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra I	Rational Expressions and Equations	Operations with rational expressions	Math; Intermediate Algebra	MA-HS-5.2.2
Algebra I	Rational Expressions and Equations	Division of polynomials	Math; Intermediate Algebra	MA-HS-5.2.5
Algebra I	Rational Expressions and Equations	Rational equations	Math; Intermediate Algebra	MA-HS-5.2.2
Algebra I	Rational Expressions and Equations	Simplifying complex rational expressions	Math; Intermediate Algebra	MA-HS-5.2.2
Algebra I	Exponentials	Application of laws of exponents in real world situations	Math; Elementary Algebra	MA-HS-5.2.1
Algebra I	Exponentials	Exponential growth and decay using tables, graphs, and equations	Math; Elementary Algebra	N/A
Algebra I	Exponentials	Exponential functions and their applications	Math; Elementary Algebra	MA-HS-5.1.4
Geometry	Geometric Foundations	Logic statements and transformations (tessellations)	Math; Coordinate Geometry	MA-HS-3.4.1
Geometry	Geometric Foundations	Basic definitions, postulates, theorems including points, lines, segments, rays, planes, midpoints, bisector, perpendicular, betweenness	Math; Coordinate Geometry	MA-HS-3.1.1
Geometry	Geometric Foundations	Complements, supplements, vertical, and adjacent angles	Math; Coordinate Geometry	MA-HS-3.1.3
Geometry	Geometric Foundations	Parallel and non-parallel lines and angles formed	Math; Coordinate Geometry	MA-HS-3.1.3
Geometry	Geometric Foundations	Triangle classification, sums, exterior angles sum	Math; Plane Geometry	MA-HS-3.1.5
Geometry	Geometric Foundations	Angles in circles	Math; Plane Geometry	MA-HS-3.1.7

Geometry	Triangles	Congruent triangles	Math; Plane Geometry	MA-HS-3.1.12
Geometry	Triangles	Perpendicular bisectors, angles bisectors, medians, altitudes, mid-segments	Math; Plane Geometry	MA-HS-3.3.1
Geometry	Triangles	Triangle inequalities	Math; Plane Geometry	MA-HS-3.1.7
Geometry	Triangles	Similar triangles and triangle proportionality	Math; Plane Geometry	MA-HS-3.1.13
Geometry	Triangles	Geometric mean	Math; Plane Geometry	MA-HS-1.3.2
Geometry	Triangles	Pythagorean Triples	Math; Plane Geometry	MA-HS-2.1.3
Geometry	Triangles	Pythagorean Proofs	Math; Plane Geometry	MA-HS-2.1.3
Geometry	Triangles	Pythagorean Theorem application	Math; Plane Geometry	MA-HS-2.1.3
Geometry	Triangles	Special right triangles (30-60-90 and 45-45-90)	Math; Trigonometry	MA-HS-3.1.7
Geometry	Trigonometry	Unit circle and trigonometry on the coordinate grid	Math; Trigonometry	MA-HS-3.1.6
Geometry	Trigonometry	Right triangle trigonometry applications	Math; Trigonometry	MA-HS-2.1.3
Geometry	Trigonometry	Law of sines and cosines	Math; Coordinate Geometry	Ma-HS-2.1.3
Geometry	Polygons	Polygons names, vertices, sum of angles measures, measure of interior and exterior angles, sum of interior and exterior angles, diagonals, central angles	Math; Coordinate Geometry	MA-HS-3.1.9

Geometry	Polygons	Quadrilaterals classification and properties	Math; Coordinate Geometry	MA-HS-3.1.9
Geometry	Polygons	Coordinate geometry	Math; Coordinate Geometry	MA-HS-3.3.1
Geometry	Polygons	Circle Segments	Math; Plane Geometry	MA-HS-3.1.6
Geometry	Perimeter/Circumference/Area	Perimeter	Math; Plane Geometry	MA-HS-2.1.2
Geometry	Perimeter/Circumference/Area	Circumference and arc length	Math; Plane Geometry	MA-HS-3.1.6
Geometry	Perimeter/Circumference/Area	Area of parallelograms, triangles, trapezoids, rhombi, regular polygons, and circles	Math; Plane Geometry	MA-HS-2.1.2
Geometry	Polyhedra - surface area	Classification	Math; Plane Geometry	MA-HS-2.1.1
Geometry	Polyhedra - surface area	Nets	Math; Plane Geometry	MA-HS-3.1.11
Geometry	Polyhedra - surface area	Surface area of prisms, pyramids, cylinders, cones, spheres	Math; Plane Geometry	MA-HS-2.1.1
Geometry	Polyhedra - surface area	Application problems	Math; Plane Geometry	MA-HS-2.1.1
Geometry	Polyhedra - volume	Volume of prisms, cylinders, pyramids, cones, and spheres	Math; Plane Geometry	MA-HS-2.1.2
Geometry	Polyhedra - volume	Application problems	Math; Plane Geometry	MA-HS-2.1.2
Geometry	Parent Functions and Transformations		Math; Plane Geometry	MA-HS-3.2.1
Geometry	Function Applications	Literal equations	Math; Plane Geometry	MA-HS-5.1.5
Geometry	Function Applications	Triangles	Math; Plane Geometry	MA-HS-2.1.3
Geometry	Function Applications	Area, surface area, and volume	Math; Plane Geometry	MA-HS-2.1.1
Geometry	Optimization Applications	Triangles	Math; Plane Geometry	MA-HS-3.1.7
Geometry	Optimization Applications	Surface area and volume	Math; Plane Geometry	MA-HS-2.1.1

Geometry	Accumulation	Area	Math; Plane Geometry	N/A
Geometry	Related Rates	Triangles	Math; Plane Geometry	MA-HS-3.1.7
Geometry	Related Rates	Area, surface area, and volume	Math; Plane Geometry	MA-HS-2.1.1
Algebra II	Linear Equations, Inequalities and Systems	Structure and properties of real numbers	Math; Intermediate Algebra	MA-HS-5.2.1
Algebra II	Linear Equations, Inequalities and Systems	Direct variation	Math; Intermediate Algebra	MA-HS-5.1.7
Algebra II	Linear Equations, Inequalities and Systems	Slope-intercept and point-slope forms	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra II	Linear Equations, Inequalities and Systems	Graphs	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra II	Linear Equations, Inequalities and Systems	Solutions/roots	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra II	Linear Equations, Inequalities and Systems	Interpretations of the meanings of slope and specific points in problem situations	Math; Intermediate Algebra	MA-HS-1.4.1
Algebra II	Linear Equations, Inequalities and Systems	Solutions of systems	Math; Intermediate Algebra	MA-HS-5.3.4
Algebra II	Linear Equations, Inequalities and Systems	Matrices	Math; Intermediate Algebra	MA-HS-4.1.3
Algebra II	Linear Equations, Inequalities and Systems	Linear programming to find optimum solution	Math; Intermediate Algebra	N/A
Algebra II	Function Operations	Functions/relations	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra II	Function Operations	Domain and range	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra II	Function Operations	Composition of functions	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra II	Function Operations	Function Inverses	Math; Intermediate Algebra	MA-HS-5.1.7
Algebra II	Function Operations	Transformations of parent functions	Math; Intermediate Algebra	MA-HS-3.2.1
Algebra II	Function Operations	Even/odd functions; symmetry	Math; Intermediate Algebra	MA-HS-5.1.5
Algebra II	Quadratic Functions	Standard and vertex forms	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Quadratic Functions	Graphs & transformations	Math; Intermediate Algebra	MA-HS-3.2.1
Algebra II	Quadratic Functions	Factoring	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Quadratic Functions	Functions from data	Math; Intermediate Algebra	MA-HS-5.2.3

Algebra II	Quadratic Functions	Solutions/roots	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Quadratic Functions	Completing the square	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Quadratic Functions	Quadratic formula	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Quadratic Functions	Complex numbers	Math; Intermediate Algebra	N/A
Algebra II	Quadratic Functions	Application problems	Math; Intermediate Algebra	MA-HS-5.3.6
Algebra II	Special Functions	Absolute value	Math; Intermediate Algebra	MA-HS-5.1.8
Algebra II	Special Functions	Piecewise defined	Math; Intermediate Algebra	MA-HS-5.1.2
Algebra II	Special Functions	Motion (position, velocity, acceleration)	Math; Intermediate Algebra	MA-HS-5.1.3
Algebra II	Radicals and Rational Exponents	Simplifications	Math; Intermediate Algebra	MA-HS-5.2.5
Algebra II	Radicals and Rational Exponents	Graphs and Transformations	Math; Intermediate Algebra	MA-HS-3.2.1
Algebra II	Radicals and Rational Exponents	Solutions/roots	Math; Intermediate Algebra	MA-HS-1.3.1
Algebra II	Radicals and Rational Exponents	Functions from data	Math; Intermediate Algebra	MA-HS-5.3.3
Algebra II	Radicals and Rational Exponents	Application problems	Math; Intermediate Algebra	MA-HS-5.3.3
Algebra II	Exponential Functions	Laws of exponents	Math; Intermediate Algebra	MA-HS-5.1.4
Algebra II	Exponential Functions	Graphs and Transformations	Math; Plane Geometry	MA-HS-3.2.1
Algebra II	Exponential Functions	Solutions/roots	Math; Intermediate Algebra	MA-HS-5.1.4
Algebra II	Exponential Functions	Growth and Decay	N/A	MA-HS-1.4.1
Algebra II	Exponential Functions	Functions from data	N/A	MA-HS-5.1.4
Algebra II	Exponential Functions	Application problems	N/A	MA-HS-5.1.4
Algebra II	Logarithmic Functions	Inverse Functions	N/A	N/A
Algebra II	Logarithmic Functions	Properties of Logarithms	N/A	N/A
Algebra II	Logarithmic Functions	Graphs and Transformations	N/A	N/A
Algebra II	Logarithmic Functions	Functions from data	N/A	N/A
Algebra II	Logarithmic Functions	Solutions of log equations	N/A	N/A
Algebra II	Logarithmic Functions	Using logs in solutions of exponentials	N/A	N/A

Algebra II	Logarithmic Functions	Applications	N/A	N/A
Algebra II	Rational Functions	Inverse Variation	Math; Intermediate Algebra	MA-HS-5.1.7
Algebra II	Rational Functions	Simplifications	Math; Intermediate Algebra	MA-HS-5.2.5
Algebra II	Rational Functions	Graphs and Transformations	Math; Intermediate Algebra	MA-HS-3.2.1
Algebra II	Rational Functions	Vertical Asymptotes and Removable Discontinuities	Math; Intermediate Algebra	N/A
Algebra II	Rational Functions	Horizontal and slant asymptotes	Math; Intermediate Algebra	N/A
Algebra II	Rational Functions	Limits	Math; Intermediate Algebra	N/A
Algebra II	Rational Functions	Solutions	Math; Intermediate Algebra	MA-HS-5.3.3
Algebra II	Rational Functions	Functions from data	Math; Intermediate Algebra	MA-HS-5.3.3
Algebra II	Rational Functions	Applications	Math; Intermediate Algebra	MA-HS-5.3.3
Algebra II	Polynomial Functions	Operations with polynomials	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Polynomial Functions	Factoring	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Polynomial Functions	Synthetic Division	Math; Intermediate Algebra	N/A
Algebra II	Polynomial Functions	Graphs and Transformations	Math; Intermediate Algebra	MA-HS-3.2.1
Algebra II	Polynomial Functions	Functions from data	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Polynomial Functions	Solutions/roots	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Polynomial Functions	Properties	Math; Intermediate Algebra	MA-HS-5.2.3
Algebra II	Conic Sections	Distance and Midpoint	Math; Coordinate Geometry	MA-HS-3.1.1
Algebra II	Conic Sections	Circles	Math; Coordinate Geometry	N/A
Algebra II	Conic Sections	Ellipses	Math; Coordinate Geometry	N/A
Algebra II	Conic Sections	Hyperbolas	Math; Coordinate Geometry	N/A
Algebra II	Conic Sections	Parabolas	Math; Coordinate Geometry	N/A
Algebra II	Conic Sections	Systems	Math; Coordinate Geometry	N/A

Algebra II	Sequences and Series	Patterns	Math; Intermediate Algebra	MA-HS-1.3.2
Algebra II	Sequences and Series	Recursive and Explicit Formulas	Math; Intermediate Algebra	MA-HS-1.3.2
Algebra II	Sequences and Series	Arithmetic and Geometric Sequences	Math; Intermediate Algebra	MA-HS-1.3.3
Algebra II	Sequences and Series	Arithmetic and Geometric Series	Math; Intermediate Algebra	MA-HS-1.3.2
Algebra II	Sequences and Series	Infinite Geometric Series	Math; Intermediate Algebra	MA-HS-1.3.2
Algebra II	Sequences and Series	Binomial Theorem	N/A	MA-HS-1.3.2
Algebra II	Sequences and Series	Convergence and Divergence	N/A	MA-HS-1.3.2
Algebra II	Probability and Statistics	Factorials	N/A	MA-HS-4.4.1
Algebra II	Probability and Statistics	Permutations	N/A	MA-HS-4.4.2
Algebra II	Probability and Statistics	Combinations	N/A	MA-HS-4.4.2
Algebra II	Probability and Statistics	Compound Probability	N/A	MA-HS-4.4.1
Algebra II	Probability and Statistics	Independent and Dependent Events	N/A	MA-HS-4.4.1
Algebra II	Probability and Statistics	Normal and Binomial Distributions	N/A	MA-HS-4.2.1
Algebra II	Probability and Statistics	Simulations	N/A	MA-HS-4.3.2
Algebra II	Periodic Functions	Radian and degree measure	N/A	N/A
Algebra II	Periodic Functions	Trigonometric functions	Math; Trigonometry	N/A
Algebra II	Periodic Functions	Graphs and Transformations	Math; Trigonometry	N/A
Algebra II	Periodic Functions	Solutions/roots	Math; Trigonometry	N/A
Algebra II	Periodic Functions	Triangle Trigonometry	Math; Trigonometry	N/A
Algebra II	Periodic Functions	Laws of Sines and Cosines	Math; Trigonometry	N/A
Algebra II	Periodic Functions	Identities	Math; Trigonometry	N/A
Pre-Calculus	Basic Functions	Parent functions - linear, quadratic, square root, rational	Math; Intermediate Algebra	MA-HS-5.1.5
Pre-Calculus	Basic Functions	Domain and range, Even and odd, zeroes, asymptotes, continuity, end behavior	Math; Intermediate Algebra	MA-HS-5.1.5
Pre-Calculus	Basic Functions	Piecewise defines functions and Absolute value functions	Math; Intermediate Algebra	MA-HS-5.1.2
Pre-Calculus	Basic Functions	Transformations	Math; Plane Geometry	MA-HS-3.2.1

Pre-Calculus	Basic Functions	Composite functions, including the domains - graphically, numerically, algebraically	Math; Intermediate Algebra	MA-HS-5.1.5
Pre-Calculus	Basic Functions	Inverse functions, including the domains - graphically, numerically, algebraically	Math; Intermediate Algebra	MA-HS-5.1.7
Pre-Calculus	Basic Functions	Inequalities - graphically, numerically, algebraically	Math; Intermediate Algebra	MA-HS-5.3.1
Pre-Calculus	Polynomial Functions	Graphing in factored form	Math; Coordinate Geometry	MA-HS-5.3.3
Pre-Calculus	Polynomial Functions	Maxima and Minima, graphically	Math; Coordinate Geometry	MA-HS-5.1.5
Pre-Calculus	Polynomial Functions	End Behavior	Math; Coordinate Geometry	N/A
Pre-Calculus	Polynomial Functions	Zeros, graphically	Math; Coordinate Geometry	MA-HS-5.1.5
Pre-Calculus	Polynomial Functions	Intermediate Value Theorem	Math; Intermediate Algebra	N/A
Pre-Calculus	Polynomial Functions	Zeros, real and complex, algebraically using factoring and synthetic division	Math; Intermediate Algebra	MA-HS-5.2.3
Pre-Calculus	Polynomial Functions	Remainder-factor theorem and upper and lower bound	Math; Intermediate Algebra	N/A
Pre-Calculus	Polynomial Functions	Applications	Math; Intermediate Algebra	MA-HS-5.3.3
Pre-Calculus	Rational Functions	Asymptotes and zeros	Math; Intermediate Algebra	MA-HS-5.3.3
Pre-Calculus	Rational Functions	Limits	Math; Intermediate Algebra	MA-HS-5.3.3
Pre-Calculus	Rational Functions	Graphs	Math; Coordinate Geometry	MA-HS-5.3.3
Pre-Calculus	Rational Functions	Applications, such as work and mixtures	Math; Coordinate Geometry	MA-HS-5.3.3
Pre-Calculus	Exponential and Logarithmic Functions	Laws of exponents	Math; Elementary Algebra	MA-HS-5.1.1
Pre-Calculus	Exponential and Logarithmic Functions	Properties of logarithms	N/A	N/A
Pre-Calculus	Exponential and Logarithmic Functions	Graphs with a transformation	N/A	MA-HS-3.2.1
Pre-Calculus	Exponential and Logarithmic Functions	Natural logarithms and e^x	N/A	N/A
Pre-Calculus	Exponential and Logarithmic Functions	Solve exponential and logarithmic equations	N/A	MA-HS-5.3.3

Pre-Calculus	Exponential and Logarithmic Functions	Applications, compound interest, continuous compound interest, growth and decay	N/A	N/A
Pre-Calculus	Exponential and Logarithmic Functions	Data Analysis with re-expression of data using $(x, \ln y)$, $(\ln x, y)$, including residuals	N/A	N/A
Pre-Calculus	Trigonometric Function Basics	Radians, arcs, angles, and rotations	Math; Trigonometry	N/A
Pre-Calculus	Trigonometric Function Basics	Unit circle	Math; Trigonometry	MA-HS-3.1.6
Pre-Calculus	Trigonometric Function Basics	Sine, Cosine, Tangent, Cotangent, Secant, Cosecant	Math; Trigonometry	N/A
Pre-Calculus	Trigonometric Function Basics	Special values for sine, cosine, and tangent, using radians based on the coordinate points of the circle below	Math; Trigonometry	N/A
Pre-Calculus	Trigonometric Function Basics	Reference angles	Math; Trigonometry	MA-HS-3.1.3
Pre-Calculus	Trigonometric Function Basics	Basic graphs	Math; Trigonometry	N/A
Pre-Calculus	Trigonometric Function Basics	Periodicity, symmetry, domain and range	Math; Trigonometry	N/A
Pre-Calculus	Graphs of Trigonometric Functions	Transformations	Math; Trigonometry	N/A
Pre-Calculus	Graphs of Trigonometric Functions	Applications solved graphically	Math; Trigonometry	N/A
Pre-Calculus	Graphs of Trigonometric Functions	Inverse functions, graphs, domain and range	Math; Trigonometry	N/A
Pre-Calculus	Analytic Trigonometry	Trigonometric Identities including double angle identities and (other) identities	Math; Trigonometry	N/A
Pre-Calculus	Analytic Trigonometry	Solutions of trigonometric equations, including multiple angles, solved analytically and graphically	Math; Trigonometry	N/A
Pre-Calculus	Analytic Trigonometry	Applications solved analytically and graphically	Math; Trigonometry	N/A
Pre-Calculus	Triangular Trigonometry	Application of right triangle, including angles of elevation and depression	Math; Trigonometry	N/A
Pre-Calculus	Triangular Trigonometry	Law of Sines and Law of Cosines, including the ambiguous case	Math; Trigonometry	N/A
Pre-Calculus	Triangular Trigonometry	Applications of any triangle including area	Math; Trigonometry	N/A

Pre-Calculus	Complex Numbers	Operations with complex numbers	Math; Intermediate Algebra	N/A
Pre-Calculus	Complex Numbers	Graphs of complex numbers in the complex plane	Math; Plane Geometry	N/A
Pre-Calculus	Complex Numbers	Notation, algebraic, exponential, and trigonometric	Math; Trigonometry	N/A
Pre-Calculus	Complex Numbers	DeMoivre's Theorem - roots and powers of complex numbers	N/A	N/A
Pre-Calculus	Vectors in 2-D and 3-D	Notations, algebraically and $\langle a, b \rangle$	N/A	N/A
Pre-Calculus	Vectors in 2-D and 3-D	Operations done algebraically and graphically	Math; Coordinate Geometry	N/A
Pre-Calculus	Vectors in 2-D and 3-D	Angles between two vectors	N/A	N/A
Pre-Calculus	Vectors in 2-D and 3-D	Vector equation of a line	N/A	N/A
Pre-Calculus	Vectors in 2-D and 3-D	Dot product	N/A	N/A
Pre-Calculus	Vectors in 2-D and 3-D	Cross product	N/A	N/A
Pre-Calculus	Parametric Equations	Graphs	N/A	N/A
Pre-Calculus	Parametric Equations	Application such as motion	N/A	N/A
Pre-Calculus	Parametric Equations	Conversion between parametric and rectangular equations	N/A	N/A
Pre-Calculus	Polar Coordinates	Points	N/A	N/A
Pre-Calculus	Polar Coordinates	Graphs, including symmetry and periodicity	N/A	N/A
Pre-Calculus	Polar Coordinates	Conversion between polar and rectangular equations	N/A	N/A
Pre-Calculus	Polar Coordinates	Intersection points between polar curves found algebraically and graphically	N/A	N/A
Pre-Calculus	Conic Sections	Applications of regular conics such as lenses, drug dosage, and pool tables	Math; Coordinate Geometry	N/A
Pre-Calculus	Conic Sections	Graphs using y-equal form with technology, including rotated conics	N/A	N/A
Pre-Calculus	Conic Sections	Domain, range, asymptotes	Math; Coordinate Geometry	N/A
Pre-Calculus	Conic Sections	Degenerate conics in y-equal form	N/A	N/A

Pre-Calculus	Sequences and Series	Recursively defined sequences	Math; Intermediate Algebra	MA-HS-1.3.2
Pre-Calculus	Sequences and Series	Arithmetic sequence	Math; Intermediate Algebra	MA-HS-1.3.2
Pre-Calculus	Sequences and Series	Geometric sequence	Math; Intermediate Algebra	MA-HS-1.3.2
Pre-Calculus	Sequences and Series	Sigma notation	N/A	N/A
Pre-Calculus	Sequences and Series	Geometric and Arithmetic Series formulas	Math; Intermediate Algebra	MA-HS-1.3.2
Pre-Calculus	Sequences and Series	Annuities and Loans	N/A	MA-HS-1.3.4
Pre-Calculus	Sequences and Series	Infinite Converging Geometric Series	N/A	MA-HS-1.3.2
Pre-Calculus	Sequences and Series	Mathematical Induction	N/A	N/A
Pre-Calculus	Sequences and Series	Limits	N/A	N/A
Pre-Calculus	Probability and Binomial Theorem	Counting Principle	N/A	MA-HS-4.4.1
Pre-Calculus	Probability and Binomial Theorem	Permutations and Combinations	N/A	MA-HS-4.4.2
Pre-Calculus	Probability and Binomial Theorem	Binomial Theorem Application	N/A	N/A
Pre-Calculus	Probability and Binomial Theorem	Probability of Independent events	N/A	MA-HS-4.4.1
Pre-Calculus	Probability and Binomial Theorem	Conditional probability	N/A	MA-HS-4.4.1