

Prioritized Curriculum Standards

Math

Algebra 1	
Content/ Measurement Topic	
Rational Numbers	x RNE1- Explain the properties of rational numbers
Components of an Expression	x CPE1- Compare the functions of terms, coefficients, and variables in an algebraic expression
Context of an Expression	x CTE1- Write an algebraic expression to represent the information presented in a real- world problem x CTE2- Convert measurement units to evaluate expressions x CTE3- Interpret expressions by identifying the de pendent and independent variables
Equations and Inequalities	x EI1 - Explain why the same amount or value can be added to or subtracted from both sides of an equation or inequality without changing the relationship it represents x EI2- Solve equations and inequalities in one variable x EI3- Express solutions to equations and inequalities in one variable algebraically and visually x EI4- Determine if equations a nd inequalities in one variable have one solution, no solutions, a defined range of solutions, or infinite solutions
Generating Equations and Inequalities	x GEI1 - Generate equations in two or more variables to represent situations involving relationships between quantities x GEI2 - Generate inequalities in two or more variables to represent situations involving relationships between quantities
Functional Relationships and Function Notation	x FRFN1- Determine whether a functional relationship exists between two variables x FRFN2- Interpret function notation and graphs that describe various types of functional relationships x FRFN3- Evaluate functions expressed using function notation to solve real- wor ld problems
Domain and Range of Functions	x DRF1- Explain the concepts of domain and range in relation to functional relationships x DRF2- Determine the domain and range for a functional relationship x DRF3- Express the domain and range of a functional relationship using appropriate notation
Linear Equations and Inequalities	x LEI1- Describe the defining characteristics of linear equations and their graphs in the coordinate plane x LEI2- Graph linear equations on a coordinate plane

<ul style="list-style-type: none"> x LEI3- Describe the defining characteristics of linear inequalities and their graphs in the coordinate plane x LEI4- Graph linear inequalities on a coordinate plane
<p>Systems of Equations and Inequalities</p> <ul style="list-style-type: none"> x SEI1- Generate systems of equations and/or inequalities to model real- world situations x SEI2- Solve systems of linear equations x SEI3- Solve systems of linear inequalities graphically x SEI4- Determine whether system of linear equations has no solutions, infinite solutions, one solution, or multiple solutions by using a system of equations or inequalities to model it
<p>Rational Exponents and Radicals</p> <ul style="list-style-type: none"> x RER1- Explain how the definition of fractional exponents is consistent with the properties of integer exponents x RER2- Manipulate expressions involving positive and negative rational exponents (including fractional exponents) and radicals using exponent properties
<p>Adding and Subtracting Polynomial Expressions</p> <ul style="list-style-type: none"> x ASPE1- Simplify polynomials with more than one variable x ASPE2- Add and subtract polynomials
<p>Multiplying Polynomial Expressions</p> <ul style="list-style-type: none"> x MDPE1- Multiply polynomials
<p>Factoring Expressions</p> <ul style="list-style-type: none"> x FE1- Factor out a greatest common factor from an expression x FE2- Factor second -degree expressions with a leading coefficient of 1 x FE3- Factor second -degree expressions with non -1 leading coefficients x FE4- Factor expressions by recognizing a difference of squares or the square of a binomial
<p>Quadratic Equations and Functions</p> <ul style="list-style-type: none"> x QEF1- Solve quadratic equations in one variable with any leading coefficient x QEF3- Graph quadratic equations and functions on a coordinate plane x QEF4- Solve quadratic equations to determine the solutions to real- world problems
<p>Graphing Functions</p> <ul style="list-style-type: none"> x GRF1- Graph various types of functions x GRF2- Interpret key features of functions x GRF3- Explain the relationship between changes in the equation for a function and its graph
<p>Comparing Functions</p> <ul style="list-style-type: none"> x CPF1- Compare properties of two functions expressed differently (algebraically, graphically, numerically in a table of values, or by verbal description) x CPF2- Compare the average rates of change for two functions x CPF3- Compare the types of growth represented by linear and quadratic functions

Generating Functions

- x GNF1 - Generate linear, quadratic, and exponential functions
- x GNF2 - Generate functions to model real -world situations

Comparing Functions

- x CPF3- Compare the types of growth represented by linear, quadratic, and exponential functions

Inverse Functions

- x IF1 - Express the inverse of an invertible function algebraically and graphically
- x IF2 - Produce an invertible function from a noninvertible function by restricting the domain

Combining Functions

- x CBF1 - Evaluate the outputs of combined functions
- x CBF2 - Use the graphs of functions to find solutions to systems of equations and inequalities

Quadratic Equations and Functions

- x QEF1- Graph quadratic equations and functions on a coordinate plane
- x QEF2- Derive the quadratic formula by completing the square for the standard quadratic equation
- x QEF3- Solve quadratic equations in one variable with any leading coefficient
- x QEF4- Solve quadratic equations to determine the solutions to real- world problems

Complex Numbers

- x CN1 - Find the conjugates of complex numbers
- x CN2 - Manipulate complex numbers
- x CN3 - Solve second -degree polynomial equations that have complex roots

Multiplying and Dividing Polynomial Expressions

- x MDPE1 - Multiply polynomials
- x MDPE2 - Divide polynomials
- x MDPE3 - Apply the Polynomial Remainder Theorem

Evaluating Polynomials

- x EP1- Prove polynomial identities
- x EP2- Simplify higher -degree binomial expansions
- x EP3- Solve factorable higher -degree polynomial equations

Rational Exponents and Radicals

- x RER1- Express and solve radical equations and inequalities involving rational exponents

Polynomial, Radical, and Rational Functions

- x PRRF1- Graph polynomial functions
- x PRRF2 Graph simple radical functions
- x PRRF3 Graph rational functions

Exponential and Logarithmic Functions

- x ELF1- Use exponents and logarithms to solve equations
- x ELF2- Graph exponential and logarithmic functions

Arithmetic and Geometric Sequences

- x AGS1 - Define an arithmetic or geometric sequence explicitly and recursively
- x AGS2 - Solve real -world problems involving arithmetic or geometric sequences by composing functions

Finite Geometric Sequences

- x FGS1- Derive the formula for the sum of a finite geometric sequence
- x FGS2- Use the formula for the sum of a geometric sequence to solve problems

Trigonometric Ratios

- x TR1- Use triangles to solve the trigonometric ratios, but a 7.51(2m) 22 (14) 112. (n) 4.8 (at) 6 (7) 138. 2 (1) 6 (1)

Probability and Combinatorics	
x PC1 - Calculate combinations and permutations	s
x PC2 - Use combinations and permutations in probability calculations	
Discrete Probability Distributions	
x DPD1 - Calculate the expected value of a random variable and use it to make decisions	
x DPD2 - Create a probability distribution for the values of a discrete random variable	
Probability Density Functions	
x PDF1 - Calculate the z -score of a given data point on a normal distribution	
x PDF2 - Find the probability that a random data point will occur within a given interval on a normal distribution	

Triangle Properties

- x TP1- Prove that a line passing through a triangle that is parallel to one side of the triangle forms two overlapping triangles with proportional side lengths
- x TP2- Prove that the sum of the interior angles of a triangle is 180°
- x

Circumscribed and Inscribed Circles of Triangles

- x CICT1 - Construct the circumscribed circle of a triangle
- x CICT2 - Construct the inscribed circle of a triangle

Circle Polygon Constructions

- x CPC1 - Construct a square inscribed within a circle
- x CPC2 - Construct an equilateral triangle inscribed within a circle
- x CPC3 - Construct a regular hexagon inscribed within a circle

Analyzing Geometric Figures

- x AGF1 - Identify the relationship between three -dimensional figures and their two -dimensional cross sections
- x AGF2 - Use geometric figures to describe the properties of real -world objects

Probability

- x P1 - Use two-way tables to model the probabilities of real- world situations
- x P2 - Calculate the probabilities of independent events
- x P3 - Calculate the probabilities of dependent events