

CCSS TRADITIONAL PATHWAY ALGEBRA I CONTENT MAP

Unit 1: Relationships Between Quantities and Reasoning with Equations			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Interpreting Structure in Expressions		
	1.1.1	Identifying Terms, Factors, and Coefficients	A–SSE.1a★
	1.1.2	Interpreting Linear and Exponential Expressions	A–SSE.1b★
Lesson 2	Creating Equations and Inequalities in One Variable		
	1.2.1	Creating Linear Equations in One Variable	A–CED.1★ N–Q.2★ N–Q.3★
	1.2.2	Creating Linear Inequalities in One Variable	A–CED.1★
	1.2.3	Creating Exponential Equations	A–CED.1★
Lesson 3	Creating and Graphing Equations in Two Variables		
	1.3.1	Creating and Graphing Linear Equations in Two Variables	A–CED.2★ N–Q.1★
	1.3.2	Creating and Graphing Exponential Equations	A–CED.2★ N–Q.1★
Lesson 4	Representing Constraints		
	1.4.1	Representing Constraints	A–CED.3★
Lesson 5	Solving Equations and Inequalities		
	1.5.1	Properties of Equality	A–REI.1
	1.5.2	Solving Linear Equations	A–REI.3
	1.5.3	Solving Linear Inequalities	A–REI.3
	1.5.4	Solving Exponential Equations	A–REI.1
Lesson 6	Rearranging Formulas		
	1.6.1	Rearranging Formulas	A–CED.4★
Unit 2: Linear and Exponential Relationships			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Working with Rational Exponents		
	2.1.1	Defining, Rewriting, and Evaluating Rational Exponents	N–RN.1 N–RN.2

Lesson 2	Graphs As Solution Sets and Function Notation		
	2.2.1	Graphing the Set of All Solutions	A–REI.10
	2.2.2	Domain and Range	F–IF.1
	2.2.3	Function Notation and Evaluating Functions	F–IF.2
Lesson 3	Solving Systems of Linear Equations		
	2.3.1	Intersecting Graphs	A–REI.11★
	2.3.2	Solving Systems of Linear Equations by Substitution and Elimination	A–REI.5 A–REI.6
	2.3.3	Solving Systems of Linear Equations by Graphing	A–REI.6
Lesson 4	Solving Linear Inequalities in Two Variables and Systems of Inequalities		
	2.4.1	Solving Linear Inequalities in Two Variables	A–REI.12
	2.4.2	Solving Systems of Linear Inequalities	A–REI.12
Lesson 5	Sequences As Functions		
	2.5.1	Sequences As Functions	F–IF.3
Lesson 6	Interpreting Graphs of Functions		
	2.6.1	Identifying Key Features of Linear and Exponential Graphs	F–IF.4★ F–IF.5★
	2.6.2	Average Rate of Change	F–IF.6★ F–LE.1a★
	2.6.3	Recognizing Average Rate of Change	F–IF.6★ F–LE.1b★ F–LE.1c★
Lesson 7	Analyzing Linear and Exponential Functions		
	2.7.1	Graphing Linear Functions	F–IF.7a★
	2.7.2	Graphing Exponential Functions	F–IF.7e★
Lesson 8	Comparing Functions		
	2.8.1	Comparing Linear Functions	F–IF.9
	2.8.2	Comparing Exponential Functions	F–IF.9
	2.8.3	Comparing Linear to Exponential Functions	F–LE.3★
Lesson 9	Building Functions		
	2.9.1	Building Functions from Context	F–BF.1a★
	2.9.2	Constructing Functions from Graphs and Tables	F–LE.2★
Lesson 10	Operating on Functions and Transformations		
	2.10.1	Operating on Functions	F–BF.1b★
	2.10.2	Transformations of Linear and Exponential Functions	F–BF.3

Lesson 11	Arithmetic and Geometric Sequences		
	2.11.1	Arithmetic Sequences	F–BF.2★
	2.11.2	Geometric Sequences	F–BF.2★
Lesson 12	Interpreting Parameters		
	2.12.1	Interpreting Parameters	F–LE.5★
Unit 3: Descriptive Statistics			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Working with a Single Measurement Variable		
	3.1.1	Representing Data Sets	S–ID.1★
	3.1.2	Comparing Data Sets	S–ID.2★
	3.1.3	Interpreting Data Sets	S–ID.3★
Lesson 2	Working with Two Categorical and Quantitative Variables		
	3.2.1	Summarizing Data Using Two-Way Frequency Tables	S–ID.5★
	3.2.2	Solving Problems Given Functions Fitted to Data	S–ID.6a★
	3.2.3	Analyzing Residuals	S–ID.6b★
	3.2.4	Fitting Linear Functions to Data	S–ID.6c★
Lesson 3	Interpreting Linear Models		
	3.3.1	Interpreting Slope and y -intercept	S–ID.7★
	3.3.2	Calculating and Interpreting the Correlation Coefficient	S–ID.8★
	3.3.3	Distinguishing Between Correlation and Causation	S–ID.9★
Unit 4: Expressions and Equations			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Interpreting Structure in Expressions and Operations on Polynomials		
	4.1.1	Adding and Subtracting Polynomials	A–APR.1
	4.1.2	Multiplying Polynomials	A–APR.1
	4.1.3	Interpreting Parts of an Expression	A–SSE.1a★
	4.1.4	Interpreting Quadratic and Exponential Expressions	A–SSE.1b★

Lesson 2	Writing Exponential Equations in Equivalent Forms		
	4.2.1	Writing Exponential Equations in Equivalent Forms	A–SSE.3c★
Lesson 3	Creating and Solving Quadratic Equations in One Variable		
	4.3.1	Taking the Square Root of Both Sides	A–CED.1★ A–REI.4b
	4.3.2	Factoring	A–SSE.2 A–CED.1★ A–REI.4b
	4.3.3	Completing the Square	A–SSE.2 A–CED.1★ A–REI.4a A–REI.4b
	4.3.4	Applying the Quadratic Formula	A–CED.1★ A–REI.4a A–REI.4b
	4.3.5	Solving Quadratic Inequalities	A–SSE.2 A–CED.1★ A–REI.4b
Lesson 4	Creating Quadratic Equations in Two or More Variables		
	4.4.1	Creating and Graphing Equations Using Standard Form	A–CED.2★ A–SSE.3a★
	4.4.2	Creating and Graphing Equations Using the x -intercepts	A–CED.2★ A–SSE.3a★
	4.4.3	Creating and Graphing Equations Using Vertex Form	A–CED.2★ A–SSE.3b★
	4.4.4	Rearranging Formulas Revisited	A–CED.4★
Lesson 5	Solving Systems of Linear and Quadratic Equations		
	4.5.1	Solving Systems Graphically	A–REI.7
	4.5.2	Solving Systems Algebraically	A–REI.7

Unit 5: Quadratic Functions and Modeling

Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Working with the Number System		
	5.1.1	Rational and Irrational Numbers and Their Properties	N–RN.3
Lesson 2	Interpreting Quadratic Functions		
	5.2.1	Interpreting Key Features of Quadratic Functions	F–IF.4★
	5.2.2	Identifying the Domain of a Quadratic Function	F–IF.5★
	5.2.3	Identifying the Average Rate of Change	F–IF.6★
Lesson 3	Analyzing Quadratic Functions		
	5.3.1	Graphing Quadratic Functions	F–IF.7a★
	5.3.2	Writing Equivalent Forms of Quadratic Functions	F–IF.8a
Lesson 4	Building Functions		
	5.4.1	Building Functions from Context	F–BF.1a★
	5.4.2	Operating on Functions	F–BF.1b★
Lesson 5	Transforming Functions		
	5.5.1	Replacing $f(x)$ with $f(x) + k$ and $f(x + k)$	F–BF.3
	5.5.2	Replacing $f(x)$ with $k \cdot f(x)$ and $f(k \cdot x)$	F–BF.3
Lesson 6	Graphing Other Functions		
	5.6.1	Square Root and Cube Root Functions	F–IF.7b★
	5.6.2	Absolute Value and Step Functions	F–IF.7b★
	5.6.3	Piecewise Functions	F–IF.7b★
Lesson 7	Analyzing Exponential Functions and Comparing Functions		
	5.7.1	Analyzing Exponential Functions	F–IF.8b★
	5.7.2	Comparing Properties of Functions Given in Different Forms	F–IF.9 F–LE.3★
Lesson 8	Finding Inverse Functions		
	5.8.1	Finding Inverse Functions	F–BF.4a