

CCSS TRADITIONAL PATHWAY ALGEBRA II CONTENT MAP

Unit 1A: Polynomial Relationships			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Polynomial Structures and Operating with Polynomials		
	1A.1.1	Structures of Expressions	A–SSE.1a★
	1A.1.2	Adding and Subtracting Polynomials	A–APR.1
	1A.1.3	Multiplying Polynomials	A–APR.1
Lesson 2	Operating with Complex Numbers		
	1A.2.1	Defining Complex Numbers, i , and i^2	N–CN.1
	1A.2.2	Adding and Subtracting Complex Numbers	N–CN.2
	1A.2.3	Multiplying Complex Numbers	N–CN.2
Lesson 3	Proving Identities		
	1A.3.1	Polynomial Identities	A–SSE.1b★ A–SSE.2 A–APR.4
	1A.3.2	Complex Polynomial Identities	N–CN.8 (+) A–SSE.1b★ A–SSE.2 A–APR.4
	1A.3.3	The Binomial Theorem	A–SSE.1a★ A–SSE.1b★ A–SSE.2 A–APR.4 A–APR.5 (+)
	Graphing Polynomial Functions		
Lesson 4	1A.4.1	Describing End Behavior and Turns	F–IF.7c★
	1A.4.2	The Remainder Theorem	A–APR.2
	1A.4.3	Finding Zeros	A–APR.3 N–CN.9 (+) F–IF.7c★
	1A.4.4	Solving Quadratic Equations with Complex Solutions	N–CN.7 N–CN.9 (+)
	1A.4.5	The Rational Root Theorem	A–APR.3
	Solving Systems of Equations with Polynomials		
Lesson 5	1A.5.1	Solving Systems of Equations Graphically	A–REI.11★
Lesson 6	Geometric Series		
	1A.6.1	Geometric Sequences	A–SSE.4★
	1A.6.2	Sum of a Finite Geometric Series	A–SSE.4★
	1A.6.3	Sum of an Infinite Geometric Series	A–SSE.4★

Unit 1B: Rational and Radical Relationships			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Operating with Rational Expressions		
	1B.1.1	Structures of Rational Expressions	A–SSE.1a★ A–SSE.1b★ A–SSE.2
	1B.1.2	Adding and Subtracting Rational Expressions	A–APR.7 (+) A–SSE.2
	1B.1.3	Multiplying Rational Expressions	A–APR.7 (+) A–SSE.2
	1B.1.4	Dividing Rational Expressions	A–APR.6 A–APR.7 (+) A–SSE.2
Lesson 2	Solving Rational and Radical Equations		
	1B.2.1	Solving Rational Equations	A–REI.2
	1B.2.2	Solving Radical Equations	A–REI.2
	1B.2.3	Solving Systems of Equations	A–REI.11★
Unit 2: Trigonometric Functions			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Radians and the Unit Circle		
	2.1.1	Radians	F–TF.1 F–TF.2
	2.1.2	The Unit Circle	F–TF.2
	2.1.3	Special Angles in the Unit Circle	F–TF.2
	2.1.4	Evaluating Trigonometric Functions	F–TF.2
	2.1.5	Proving a Pythagorean Identity	F–TF.8
Lesson 2	Graphs of Trigonometric Functions		
	2.2.1	Periodic Phenomena and Amplitude, Frequency, and Midline	F–TF.5★
	2.2.2	Using Trigonometric Functions to Model Periodic Phenomena	F–TF.5★

Unit 3A: Mathematical Modeling of Inverse, Logarithmic, and Trigonometric Functions

Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Inverses of Functions		
	3A.1.1	Determining Inverses of Quadratic Functions	F–BF.4a
	3A.1.2	Determining Inverses of Other Functions	F–BF.4a
Lesson 2	Modeling Logarithmic Functions		
	3A.2.1	Logarithmic Functions as Inverses	F–BF.4a F–LE.4★
	3A.2.2	Common Logarithms	F–IF.8 F–LE.4★
	3A.2.3	Natural Logarithms	F–IF.8 F–LE.4★
	3A.2.4	Graphing Logarithmic Functions	F–IF.7e★
	3A.2.5	Interpreting Logarithmic Models	F–IF.4★ F–IF.5★ F–IF.6★
Lesson 3	Modeling Trigonometric Functions		
	3A.3.1	Graphing the Sine Function	F–IF.7e★
	3A.3.2	Graphing the Cosine Function	F–IF.7e★

Unit 3B: Mathematical Modeling and Choosing a Model

Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Creating Equations		
	3B.1.1	Creating Equations in One Variable	A–CED.1★
	3B.1.2	Representing and Interpreting Constraints	A–CED.3★
	3B.1.3	Rearranging Formulas	A–CED.4★
Lesson 2	Transforming a Model and Combining Functions		
	3B.2.1	Transformations of Parent Graphs	F–BF.3
	3B.2.2	Recognizing Odd and Even Functions	F–BF.3
	3B.2.3	Combining Functions	F–BF.1b★
Lesson 3	Comparing Properties Within and Between Functions		
	3B.3.1	Reading and Identifying Key Features of Real-World Situation Graphs	F–IF.4★ F–IF.5★ F–IF.6★
	3B.3.2	Calculating Average Rates of Change	F–IF.6★
	3B.3.3	Comparing Functions	F–IF.6★ F–IF.9

Lesson 4	Choosing a Model		
	3B.4.1	Linear, Exponential, and Quadratic Functions	A–CED.2★ F–IF.4★ F–IF.5★ F–BF.3
	3B.4.2	Piecewise, Step, and Absolute Value Functions	F–IF.4★ F–IF.5★ F–IF.7b★ F–BF.3
	3B.4.3	Square Root and Cube Root Functions	F–IF.4★ F–IF.5★ F–IF.7b★ F–BF.3
Unit 4: Inferences and Conclusions from Data			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Using the Normal Curve		
	4.1.1	Normal Distributions and the 68–95–99.7 Rule	S–ID.4★
	4.1.2	Standard Normal Calculations	S–ID.4★
	4.1.3	Assessing Normality	S–ID.4★
Lesson 2	Populations Versus Random Samples and Random Sampling		
	4.2.1	Differences Between Populations and Samples	S–IC.1★
	4.2.2	Simple Random Sampling	S–IC.2★
	4.2.3	Other Methods of Random Sampling	S–IC.2★
Lesson 3	Surveys, Experiments, and Observational Studies		
	4.3.1	Identifying Surveys, Experiments, and Observational Studies	S–IC.3★
	4.3.2	Designing Surveys, Experiments, and Observational Studies	S–IC.3★
Lesson 4	Estimating Sample Proportions and Sample Means		
	4.4.1	Estimating Sample Proportions	S–IC.4★
	4.4.2	The Binomial Distribution	S–IC.4★
	4.4.3	Estimating Sample Means	S–IC.4★
	4.4.4	Estimating with Confidence	S–IC.4★
Lesson 5	Comparing Treatments and Reading Reports		
	4.5.1	Evaluating Treatments	S–IC.5★
	4.5.2	Designing and Simulating Treatments	S–IC.5★
	4.5.3	Reading Reports	S–IC.6★
Lesson 6	Making and Analyzing Decisions		
	4.6.1	Making Decisions	S–MD.6★ (+)
	4.6.2	Analyzing Decisions	S–MD.7★ (+)