

Unit 1: Function Foundations			
Day	Date	Focus Benchmark(s)	Lesson/Topic
4	Aug 15	MA.912.F.1.1	1.1 Types of Functions
5	Aug 16	MA.912.F.1.1	1.2 More Function Types
6	Aug 17	MA.912.F.1.7	1.3 Comparing Key Features of Functions
7	Aug 18	MA.912.F.2.3	1.4 Describing the Effects of Transformations
8	Aug 19	MA.912.F.2.3	1.5 Determining Transformations from Graphs and Tables
9	Aug 22		
10	Aug 23	MA.912.AR.4.4	1.6 Graphs of Absolute Value Functions – Part 1
11	Aug 24	MA.912.AR.4.4	1.7 Graphs of Absolute Value Functions – Part 2
12	Aug 25	MA.912.AR.4.4	1.8 Absolute Value Functions in Real-World Contexts
13	Aug 26	MA.912.AR.4.4	1.9 Solving Absolute Value Functions – Part 1
14	Aug 29	MA.912.AR.4.4	1.10 Solving Absolute Value Functions – Part 2
15	Aug 30		Review Unit 1
16	Aug 31		Unit 1 Assessment
Unit 2: Polynomials and the Complex Number System			
Day	Date	Focus Benchmark(s)	Lesson/Topic
17	Sept 1	MA.912.AR.3.4	2.1 Key Features of Quadratic Functions
18	Sept 2	MA.912.AR.3.4	2.2 Writing a Quadratic Function – Part 1
19	Sept 6	MA.912.AR.3.4	2.3 Writing a Quadratic Function – Part 2
			2.1-2.3 Activity/Quiz Writing Quadratic Functions
20	Sept 7	MA.912.NSO.2.1	2.4 Imaginary Numbers
21	Sept 8	MA.912.NSO.2.1	2.5 Complex Numbers (add/subtracting)
22	Sept 9	MA.912.NSO.2.1	2.6 Multiplying Complex Numbers
23	Sept 12	MA.912.NSO.2.1	2.7 Dividing Complex Numbers
24	Sept 13		2.4-2.7 Review/Quiz Complex Operations
25-26	Sept 14-15	MA.912.AR.1.8	2.8 Factoring Quadratics

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27	Sept 16	MA.912.AR.1.8	2.9 Factoring with Degrees Greater Than 2
28	Sept 19	MA.912.AR.1.8	2.10 Factoring by Grouping
29	Sept 20	MA.912.AR.1.8	2.11 Factoring Sums and Differences of Cubes
30	Sept 21	MA.912.AR.1.8	2.12 Factoring with Complex Numbers
31	Sept 22		Review Unit 2
32	Sept 23		Unit 2 Assessment

Unit 3: Modeling with Quadratic Equations and Functions			
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Day	Date	Focus Benchmark(s)	Lesson/Topic
33	Sept 26	MA.912.AR.3.2	3.1 Solving Quadratic Equations by Factoring
34	Sept 27	MA.912.AR.3.2	3.2 Determining Zeros Within a Real-World Context
35	Sept 28	MA.912.AR.3.2	3.3 Solving Quadratics Using Square Roots
36	Sept 29	MA.912.AR.3.2	3.4 Solving Quadratic Equations by Completing the Square
37	Sept 30	MA.912.AR.3.2	3.5 Solving Quadratics Using the Quadratic Formula
38	Oct 3	MA.912.AR.3.2	3.6 Solving Quadratics
39	Oct 4		3.1-3.6 Review/Quiz
40	Oct 5	MA.912.AR.3.8	3.7 Solving Real-World Quadratics by Graphing
41	Oct 6	MA.912.AR.3.8, MA.912.DP.2.8	3.8 Quadratic Regression – Part 1
42	Oct 7	MA.912.AR.3.8, MA.912.DP.2.8	3.9 Quadratic Regression – Part 2
43	Oct 10		Review Unit 3
44	Oct 11		Unit 3 Assessment (calculator and non-calculator portion)

Unit 4: Polynomial Functions			
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Day	Date	Focus Benchmark(s)	Lesson/Topic
45	Oct 12	MA.912.F.1.9	4.1 Even and Odd Functions
46	Oct 13	MA.912.F.1.9	4.2 Even, Odd, or Neither
47	Oct 14	MA.912.AR.6.5	4.3 Graphs of Polynomials
48	Oct 18	MA.912.AR.6.5	4.4 Rough Graphs of Polynomials
49	Oct 19		4.1-4.4 Review/Quiz
50	Oct 20	MA.912.AR.6.1	4.5 Finding Real and Complex Zeros

51	Oct 21	MA.912.AR.6.1	4.6 Factoring for Real and Complex Zeros
52	Oct 24	MA.912.AR.6.1, MA.912.AR.1.1	4.7 Factoring Polynomials From a Real-World Context
53	Oct 25		Review Unit 4
54	Oct 26		Unit 4 Assessment
Unit 5: Operations with Polynomial Expressions			
Day	Date	Focus Benchmark(s)	Lesson/Topic
55	Oct 27	MA.912.AR.1.6	5.1 Using a Graphing Tool to Solve Problems Involving Addition and Subtraction of Polynomials
56	Oct 28	MA.912.AR.1.6	5.2 Using Graphs to Solve Problems Involving Multiplication and Division of Polynomials
57	Oct 31	MA.912.AR.1.6	5.3 Using Graphs to Solve Real-World Problems Involving Polynomials
58	Nov 1	MA.912.F.3.4	5.4 Representing the Composition of Two Functions in a Table
59	Nov 2	MA.912.F.3.4	5.5 Representing the Composition of Two Functions Algebraically
61	Nov 3	MA.912.AR.1.3	5.6 Adding and Subtracting Polynomials
62	Nov 4	MA.912.AR.1.3	5.7 Multiplying Polynomials
63	Nov 7		5.1-5.7 Review/Quiz
64	Nov 8	MA.912.AR.1.3	5.8 Adding, Subtracting, and Multiplying Polynomials Using More Than One Operation
65	Nov 9	MA.912.AR.1.5	5.9 The Factor Theorem and the Rational Root Theorem
66	Nov 10	MA.912.AR.1.5	5.10 Long Division of a Polynomial by a Binomial
67	Nov 14	MA.912.AR.1.5	5.11 Synthetic Division of a Polynomial by a Binomial
68	Nov 15	MA.912.AR.1.5	5.12 Dividing a Polynomial by a Polynomial
69	Nov 16		Review Unit 5
70	Nov 17		Unit 5 Assessment
71	Nov 18		Activity Day
Unit 6: Radical Expressions, Equations, and Functions			
Day	Date	Focus Benchmark(s)	Lesson/Topic
72	Nov 28	MA.912.NSO.1.3	6.1 Evaluating Numerical Expressions with Rational Exponents and Radicals
73	Nov 29	MA.912.NSO.1.3	6.2 Rewriting Rational Exponents and Radicals
74	Nov 30	MA.912.NSO.1.3	6.3 Equivalent Radical Expressions

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75	Dec 1	MA.912.NSO.1.3	6.4 Rewriting Algebraic Expressions Involving Radicals
76	Dec 2	MA.912.NSO.1.5	6.5 Adding and Subtracting Radical Expressions
77	Dec 5	MA.912.NSO.1.5	6.6 Multiplying and Dividing Radical Expressions
78	Dec 6	MA.912.NSO.1.5	6.7 Operations with Radical Expressions
77	Dec 7		Review Unit 6 Part 1
78	Dec 8		Unit 6 Assessment – Part 1
91	Jan 10	MA.912.AR.7.2	6.8 Key Features of Square Root Functions
92	Jan 11	MA.912.AR.7.2	6.9 Key Features of Cube Root Functions
93	Jan 12	MA.912.AR.7.2	6.10 Graphing Square Root and Cube Root Functions Given a Written Description
94	Jan 13	MA.912.AR.7.1	6.11 Solving Radical Equations
95	Jan 17	MA.912.AR.7.3	6.12 Solving Square Root and Cube Root Functions by Graphing
96	Jan 18	MA.912.AR.7.3	6.13 Using Square Root and Cube Root Functions to Model Real-World Contexts
97	Jan 19	MA.912.AR.7.3	6.14 Solving Real-World Problems Using Square Root and Cube Root Functions
98	Jan 20		Review Unit 6
99	Jan 23		Unit 6 Assessment – Part 2

Unit 7: Exponential Relationships with Financial Applications

Day	Date	Focus Benchmark(s)	Lesson/Topic
100	Jan 24	MA.912.AR.5.5, MA.912.AR.1.1	7.1 Constant Percent Rate of Change in Exponential Functions
101	Jan 25	MA.912.FL.3.1	7.2 Types of Interest
102	Jan 26	MA.912.FL.3.1, MA.912.FL.3.4	7.3 Modeling Interest with Tables and Graphs
103	Jan 27	MA.912.FL.3.4	7.4 The Number e
104	Jan 30	MA.912.FL.3.4	7.5 Compound Interest, Continuously Compounding Interest, and Exponential Functions
105	Jan 31	MA.912.FL.3.2	7.6 Solving Real-World Problems Involving Interest
106	Feb 1		Review Unit 7
107	Feb 2		Unit 7 Assessment

Unit 8: Modeling with Exponential Functions

Day	Date	Focus Benchmark(s)	Lesson/Topic
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108	Feb 3	MA.912.AR.5.7	8.1 Solving Exponential Equations by Graphing
109	Feb 6	MA.912.AR.5.7	8.2 Interpreting Key Features of Real-World Exponential Functions
110	Feb 7	MA.912.AR.5.7	8.3 Solving Real-World Exponential Functions by Graphing
111	Feb 8	MA.912.DP.2.9, MA.912.AR.1.1	8.4 Exponential Models and Bivariate Data
112	Feb 9		8.1-8.4 Review/Quiz
113	Feb 10	MA.912.AR.5.4, MA.912.AR.1.1	8.5 Equivalent Exponential Expressions
114	Feb 13	MA.912.AR.5.4	8.6 Writing Exponential Functions from Graphs
115	Feb 14	MA.912.AR.5.4	8.7 Writing Exponential Functions from Tables
116	Feb 15	MA.912.AR.5.4	8.8 Writing Exponential Functions from Written Descriptions
117	Feb 16		Review Unit 8
118	Feb 17		Unit 8 Assessment
Unit 9: Inverses and Logarithms			
Day	Date	Focus Benchmark(s)	Lesson/Topic
119	Feb 21	MA.912.F.3.6	9.1 Determining the Existence of Inverses
120	Feb 22	MA.912.F.3.7	9.2 Representing Inverse Functions Graphically and in a Table
121	Feb 23	MA.912.F.3.7	9.3 Representing Inverse Functions Algebraically
122	Feb 24	MA.912.NSO.1.6, MA.912.NSO.1.7	9.4 Properties of Logarithms
123	Feb 27	MA.912.NSO.1.6, MA.912.NSO.1.7	9.5 Using the Properties of Logarithms with Common Bases
124	Feb 28	MA.912.NSO.1.6, MA.912.NSO.1.7	9.6 Converting Between Logarithmic and Exponential Form
125	Mar 1	MA.912.NSO.1.6, MA.912.NSO.1.7, MA.912.AR.5.2	9.7 Change of Base
126	Mar 2		9.1-9.7 Review/Quiz
127	Mar 3	MA.912.AR.5.2	9.8 Solving Exponential and Logarithmic Equations
128	Mar 6	MA.912.AR.5.2	9.9 Solving Real-World Exponential and Logarithmic Equations
129	Mar 7	MA.912.AR.5.8	9.10 Graphing a Logarithmic Function
130	Mar 8	MA.912.AR.5.9	9.11 Solving a Logarithmic Function by Graphing
131	Mar 9	MA.912.AR.5.9	9.12 Solving Real-World Logarithmic Equations by Graphing – Part 1
132	Mar 10	MA.912.AR.5.9	9.13 Solving Real-World Logarithmic Equations by Graphing – Part 2
133	Mar 13		Review Unit 9

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134	Mar 14		Unit 9 Assessment
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Unit 10: Rational Expressions and Functions

Day	Date	Focus Benchmark(s)	Lesson/Topic
136	Mar 27	MA.912.AR.8.2	10.1 Key Features of Rational Functions from a Graph
137	Mar 28	MA.912.AR.8.2	10.2 Graphing a Rational Function from an Equation
138	Mar 29	MA.912.AR.8.2	10.3 Graphing a Rational Function from a Table of Values or a Written Description
139	Mar 30		10.1-10.3 Review/Quiz
140	Mar 31	MA.912.AR.1.9	10.4 Simplifying Rational Expressions
141	Apr 3	MA.912.AR.1.9	10.5 Multiplying and Dividing Rational Expressions
142	Apr 4	MA.912.AR.1.9	10.6 Adding and Subtracting Rational Expressions with Common Denominators
143	Apr 5	MA.912.AR.1.9	10.7 Adding and Subtracting Rational Expressions with Unlike Denominators
144	Apr 6		Review Unit 10
145	Apr 7		Unit 10 Assessment

Unit 11: Rational Equations and Functions

Day	Date	Focus Benchmark(s)	Lesson/Topic
146	Apr 10	MA.912.AR.8.3	11.1 Solving Rational Equations Graphically
147	Apr 11	MA.912.AR.8.3	11.2 Solving Real-World Rational Functions by Graphing
148	Apr 12	MA.912.AR.8.3	11.3 Solving Real-World Problems Modeled with Rational Functions
149	Apr 13	MA.912.AR.8.1	11.4 Solving One-Variable Rational Equations in Mathematical Context
150	Apr 14	MA.912.AR.8.1	11.5 Solving One-Variable Rational Equations in Real-World Context
151	Apr 17	MA.912.AR.8.1, MA.912.AR.1.1	11.6 Writing and Solving One-Variable Rational Equations
152	Apr 18		Review Unit 11
153	Apr 19		Unit 11 Assessment

Unit 12: Systems of Equations and Transformations

Day	Date	Focus Benchmark(s)	Lesson/Topic
154	Apr 20	MA.912.AR.9.2	12.1 Solving Systems Consisting of Two Linear Equations
155	Apr 21	MA.912.AR.9.2	12.2 Solving Systems of Linear and Non-Linear Equations Graphically
156	Apr 24	MA.912.AR.9.2	12.3 Solving Systems of Linear and Non-Linear Equations Algebraically
157	Apr 25	MA.912.AR.9.3	12.4 Solving Systems Consisting of Two Non-Linear Equations
158	Apr 26	MA.912.AR.9.2, MA.912.AR.9.3	12.5 Solving and Interpreting Solutions to Real-World Problems Modeled by Systems of Equations
159	Apr 27		12.1-12.5 Review/Quiz
160	Apr 28	MA.912.F.3.2	12.6 Combining Functions – Part 1
161	May 1	MA.912.F.3.2	12.7 Combining Functions – Part 2
162	May 2	MA.912.F.2.2	12.8 Identifying the Effects of Transformations – Part 1
163	May 3	MA.912.F.2.2	12.9 Identifying the Effects of Transformations – Part 2
164	May 4	MA.912.F.2.5	12.10 Multiple Representations of Transformations – Part 1
165	May 5	MA.912.F.2.5	12.11 Multiple Representations of Transformations – Part 2
166	May 8		Review Unit 12
167	May 9		Unit 12 Assessment

Unit 13: Inequalities

Day	Date	Focus Benchmark(s)	Lesson/Topic
168	May 10	MA.912.AR.4.2	13.1 Solving Absolute Value Inequalities
169	May 11	MA.912.AR.4.2	13.2 Writing and Solving Absolute Value Inequalities for Real-World Contexts
170	May 12	MA.912.AR.3.3	13.3 Writing and Solving One-Variable Quadratic Inequalities
171	May 15	MA.912.AR.3.10	13.4 Graphing Solution Sets of Two-Variable Quadratic Inequalities
172	May 16	MA.912.AR.3.9	13.5 Writing Two-Variable Quadratic Inequalities
173	May 17	MA.912.AR.3.10, MA.912.AR.9.5	13.6 Graphing Solution Sets to Systems of Two-Variable Inequalities
174	May 18	MA.912.AR.9.7	13.7 Constraints
175	May 19		Review Unit 13
176	May 22		Unit 13 Assessment

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