

ALGEBRA I CURRICULUM COURSE OUTLINE 2023 - 2024

Module 1 Expressions

STANDARD

1	Lesson 1	Numerical Expressions	Skip
1	Lesson 2	Algebraic Expressions	Skip
2	Lesson 3	Properties of Real Numbers	Skip
2	Lesson 4	Distributive Property	Skip
3	Lesson 5	Expressions Involving Absolute Value	Skip
4	Lesson 6	Descriptive Modeling and Accuracy	Skip

Module 2 Equations in One Variable

5	Lesson 1	Writing & Interpreting Equations	Skip
5	Lesson 2	Solving One Step Equations	Skip
5	Lesson 3	Solving Multi-Step Equations	
5	Lesson 4	Solving Equations with variables on each side	
6	Lesson 5	Solving Equations Involving Absolute Value	
7	Lesson 6	Solving Proportions	
8	Lesson 7	Using Formulas / Solving Literal Equations	

Module 3 Relations and Functions

9	Lesson 1	Representing Relations	
9	Lesson 2	Functions	
10	Lesson 3	Linearity and Continuity of Graphs	Skip
10	Lesson 4	Intercepts of Graphs	
10	Lesson 5	Shapes of Graphs	Skip
10	Lesson 6	Sketching Graphs and Comparing Functions	Skip

Module 4 Linear and Nonlinear Functions

11	Lesson 1	Graphing Linear Functions	
11	Lesson 2	Rate of Change and Slope	
11	Lesson 3	Slope-Intercept Form	
12	Lesson 4	Transformations of Linear Functions	skip
13	Lesson 5	Arithmetic Sequences	
14	Lesson 6	Piecewise and Step Functions	skip
15	Lesson 7	Absolute Value Functions	

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Module 5 Creating Linear Equations

16	Lesson 1	Writing Equations in Slope-Intercept Form	
16	Lesson 2	Writing Equations in Standard and Point-Slope Form	
17	Lesson 3	Scatter Plots and Lines of Fit	skip
18	Lesson 4	Correlation and Causation	skip
19	Lesson 5	Linear Regression	skip
20	Lesson 6	Inverses of Linear Functions	

Module 6 Linear Inequalities

21	Lesson 1	Solving One-Step Inequalities	
21	Lesson 2	Solving Multi-Step Inequalities	
22	Lesson 3	Solving Compound Inequalities	
22	Lesson 4	Solving Absolute Value Inequalities	
23	Lesson 5	Graphing Inequalities in Two Variables	

Module 7 Systems of Linear Equations and Inequalities

24	Lesson 1	Graphing Systems of Equations (2nd day: TI -84)	
25	Lesson 2	Substitution Method	
25	Lesson 3	Elimination using Addition and Subtraction	
25	Lesson 4	Elimination using Multiplication	
26	Lesson 5	Systems of Inequalities	

Module 8 Exponents and Roots

27	Lesson 1	Multiplication Properties of Exponents	
27	Lesson 2	Division Properties of Exponents	
27	Lesson 3	Negative Exponents	
28	Lesson 4	Rational Exponents	Skip *
29	Lesson 5	Simplifying Radical Expressions	Skip *
29	Lesson 6	Operations with Radical Expressions	Skip *
30	Lesson 7	Exponential Equations	Skip *

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Module 9 Exponential Functions

31	Lesson 1	Exponential Functions	Skip	*
31	Lesson 2	Transformations of Exponential Functions	Skip	*
32	Lesson 3	Writing Exponential Functions	Skip	*
33	Lesson 4	Transforming Exponential Expressions	Skip	*
34	Lesson 5	Geometric Sequences	Skip	*
35	Lesson 6	Recursive Formulas	Skip	*

Module 10 Polynomials

36	Lesson 1	Adding & Subtracting Polynomials		
37	Lesson 2	Multiplying Polynomials by a Monomial		
37	Lesson 3	Multiplying Polynomials		
37	Lesson 4	Special Products		
38	Lesson 5	Using the Distributive Property		
38	Lesson 6	Factoring Quadratic Trinomials		
38	Lesson 7	Factoring Special Products		

Module 11 Quadratic Functions

39	Lesson 1	Graphing Quadratic Functions		
39	Lesson 2	Transformations of Quadratic Functions	Skip	
40	Lesson 3	Solving Quadratic Equations by Graphing		
41	Lesson 4	Solving Quadratic Equations by Factoring		
42	Lesson 5	Solving Quadratic Eqns by Complete the Square		
43	Lesson 6	Solving Quadratic Equations by Quadratic Formula		
44	Lesson 7	Solving Systems of Linear & Quadratic Equations		
45	Lesson 8	Modeling and Curve Fitting	Skip	*
46	Lesson 9	Combining Functions	Skip	*

Module 12 Statistics

47	Lesson 1	Measures of Center	Skip	*
48	Lesson 2	Representing Data	Skip	*
49	Lesson 3	Using Data	Skip	*
50	Lesson 4	Measures of Spread	Skip	*
51	Lesson 5	Distributions of Data	Skip	*
52	Lesson 6	Comparing Sets of Data	Skip	*
53	Lesson 7	Summarizing Categorical Data	Skip	*

HW # # days

1	1		
2	2		
3	2		
4	1		
5	1		
6	0	0	0

7	1		
8	1		
9	3		
10	2		
11	2		
12	2		
13	2	10	10

14	2		
15	2		
16	2		
17	2		
18	0		
19	0	6	16

20	2		
21	3		
22	2		
23	0		
24	2		
25	0		
26	2	11	27

27	2		
28	3		
29	1		
30	0		
31	0		
32	2	7	34
33	1		
34	1		
35	2		
36	2		
37	2	8	42
38	2		
39	1		
40	1		
41	1		
42	1	6	48
43	1		
44	1		
45	1		
46	2		
47	3		
48	2		
49	2	3	51

50	1		
51	2		
52	2		
53	1		
54	2		
55	2	0	51
56	2		
57	2		
58	2		
59	1		
60	2		
61	3		
62	2	14	65
63	2		
64	2		
65	1		
66	3		
67	2		
68	3		
69	2		
70	0		
71	0	15	80
72	0		
73	0		
74	0		
75	0		
76	0		
77	0		
78	0		