

Appendix II -- Algebra I Curriculum

INTERNATIONAL ACADEMY OF SCIENCE Algebra I Course Curriculum

Lecture	Description	Lecture	Description	Lecture	Description
1	Expressions -- Verbal and Algebraic	30	Percent of Increase or Decrease	59	Adding Polynomials with Algebra Tiles
2	Algebraic Patterns	31	Probability and Odds	60	Subtracting Polynomials with Algebra Tiles
3	Order of Operations	32	Mixtures	61	Multiplying and Dividing Monomials with Algebra Tiles
4	More Order of Operations	33	Uniform Motion	62	Multiplying Polynomials by Monomials
5	Open Sentences	34	Ordered Pairs and Relations	63	Multiplying Polynomials
6	Some Basic Properties of Algebra	35	Graphing Linear Equations	64	Multiplying Binomials Using FOIL
7	Distributive Property	36	Writing Equations Given Relations	65	Special Products
8	Integers and Sets of Numbers	37	Definitions of Slope	66	Factoring Out the GCF of a Polynomial
9	Integer Arithmetic	38	Calculating Slope	67	Binomial Factors
10	Absolute Value	39	Point-Slope Formula	68	Factoring Using FOIL
11	A Formal Definition of Addition	40	Slope-Intercept Formula	69	Zero Product Property to Solve Equations
12	Compare and Order Rational Numbers	41	Shortcuts to Graphing	70	Simplifying Rational Expressions
13	Add, Subtract, Multiply, and Divide Rational Numbers	42	Parallel & Perpendicular Slopes	71	Dividing a Polynomial by a Binomial
14	Square Roots, Square Numbers, and Irrationals	43	Equations of Parallel & Perpendicular Lines	72	Multiplying Rational Expressions
15	One-Step Equations Using Addition and Subtraction	44	Midpoints	73	Dividing Rational Expressions
16	One-Step Equations Using Multiplication and Division	45	Graphing Absolute Value	74	Adding and Subtracting Rational Expressions
17	Properties of Equality	46	Parabolas	75	Simplifying Square Roots
18	Two-Step Equations with Manipulatives	47	Solving Equations with a Calculator	76	Simplifying Radical Expressions
19	Complement and Supplement Problems	48	Solving Inequalities Using Addition and Subtraction	77	Rationalizing Denominators
20	Clearing Fractions and Decimals	49	Solving Inequalities Using Multiplication and Division	78	Radical Expressions
21	Number Problems	50	Multi-Step Inequalities	79	Radical Equations
22	Consecutive Integers	51	Graphing Inequalities	80	The Distance Formula
23	Perimeter and Angle Problems	52	Solving Systems of Equations by Graphing	81	Quadratic Equations
24	Multi-Step Equations	53	Solving Systems by Substitution	82	Completing the Square
25	Literal Equations	54	Solving Systems by Addition	83	Quadratic Formula
26	Solve Proportions	55	Solving Systems by Multiplication	84	Rules of Exponents
27	Similar Triangles	56	Graphing Systems of Inequalities		
28	Percent -- A Special Kind of Ratio	57	Polynomial Terminology		
29	Simple Interest	58	Polynomials with Algebra Tiles		