Publisher: Kinetic Books ®
Program Title: *Algebra I*
Components:
Grade Level(s): high school

ILLINOIS STANDARDS MAP

(Algebra I)

Standard No.	Standard Language	Publisher Citations	
	ALGEBRA I	**Primary Citations**	**Supporting Citations**
8.A.3a	Apply the basic properties of commutative, associative, distributive, transitive, inverse, identity, zero, equality and order of operations to solve problems.	1.05 to 1.08 2.24 2.43 to 2.44 2.49 3.02 3.05	1.10 to 1.11 1.39 2.45 to 2.48 2.50 to 2.51 2.55 3.11 to 3.12
8.A.3b	Solve problems using linear expressions, equations and inequalities.	1.12 to 1.14 1.24 to 1.26 3.06 to 3.08 3.14 to 3.17 3.21 to 3.22 3.30 to 3.32 3.34 to 3.35 3.37 to 3.38 3.45 to 3.47 3.51 3.53 8.05 to 8.07 8.09 to 8.10 8.16 8.27 to 8.32	1.21 to 1.22 1.27 to 1.29 1.39 3.01 to 3.05 3.09 to 3.13 3.18 to 3.20 3.23 to 3.25 3.33 3.39 3.48 to 3.50 3.54 to 3.55 3.61 8.08 8.11 to 8.12 8.40
8.B.3	Use graphing technology and algebraic methods to analyze and predict linear relationships and make generalizations from linear patterns.	5.13 to 5.17 5.30 to 5.31 5.35 to 5.36 5.40 5.54 to 5.57 6.08 6.15	5.21 to 5.22 5.24 to 5.29 5.32 to 5.34 5.37 to 5.40 5.51 to 5.53 5.65 6.33

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8.C.3	Apply the properties of numbers and operations including inverses in algebraic settings derived from economics, business and the sciences.	2.27 2.47 to 2.48	2.29 to 2.30 2.50 to 2.51 2.55
8.D.3a	Solve problems using numeric, graphic, or symbolic representations of variables, expressions, equations, and inequalities.	1.02 to 1.03 1.12 to 1.14 1.24 to 1.26 3.06 to 3.08 3.14 to 3.17 3.21 to 3.22 3.30 to 3.32 3.34 to 3.35 3.37 to 3.38 3.45 to 3.47 3.51 3.53 8.05 to 8.07 8.09 to 8.10 8.16 8.27 to 8.32	1.01 1.15 to 1.16 1.21 to 1.22 1.27 to 1.29 1.39 3.01 to 3.05 3.09 to 3.13 3.48 to 3.50 3.54 to 3.55 3.61 8.08 8.11 to 8.12 8.40
8.D.3b	Propose and solve problems using proportions, formulas, and linear functions.	1.30 to 1.35 6.04 6.08 6.15 to 6.16	1.36 to 1.39 6.05 6.20 to 6.21 6.33
8.D.3c	Apply properties of powers, perfect squares, and square roots.	9.02 to 9.09 9.12 to 9.20 12.01 to 12.04 12.09 to 12.14 12.17 to 12.22 12.25 to 12.30 12.37 to 12.41 12.46 to 12.51 12.54 to 12.56 12.59 to 12.61	9.10 to 9.11 9.21 to 9.23 9.39 12.07 to 12.08 12.15 to 12.16 12.23 to 12.24 12.31 to 12.32 12.42 to 12.45 12.52 to 12.53 12.57 to 12.58 12.62 12.69

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8.A.4a	Use algebraic methods to convert repeating decimals to fractions.	N/A	
8.A.4b	Represent mathematical patterns and describe their properties using variables and mathematical symbols.	1.17 5.50 6.01 to 6.02	1.39 5.65 6.33
8.B.4a	Represent algebraic concepts with physical materials, words, diagrams, tables, graphs, equations and inequalities and use appropriate technology.	1.01 to 13.63	
8.B.4b	Use the basic functions of absolute value, square root, linear, quadratic and step to describe numerical relationships.	3.26 to 3.27 3.34 to 3.38 3.41 to 3.48 3.51 to 3.54 6.01 6.04 6.07 to 6.09 12.48 to 12.51 12.54 to 12.56 13.01 to 13.36 13.46 to 13.51	3.28 to 3.29 3.39 to 3.40 3.49 to 3.50 3.55 3.61 6.13 to 6.14 6.33 12.52 to 12.53 12.69 13.37 to 13.38 13.52 to 13.54 13.63
8.C.4a	Analyze and report the effects of changing coefficients, exponents, and other parameters on functions and their graphs.	5.27 to 5.30 5.50 5.52 13.46 13.48	5.51 5.65 13.53 to 13.54 13.63
8.C.4b	Apply algebraic properties and procedures with matrices, vectors, functions and sequences using data found in business, industry and consumer situations.	6.16 6.18 6.26 to 6.28	6.31 to 6.33
8.D.4	Formulate and solve linear and quadratic equations and linear inequalities	3.13 to 3.18 3.21 to 3.22	3.19 to 3.20 3.23 to 3.25

Standard No.	Standard Language	Publisher Citations	
	algebraically and investigate nonlinear inequalities using graphs, tables, calculators and computers.	3.30 to 3.32 3.34 to 3.38 3.40 to 3.48 3.51 to 3.54 8.05 to 8.11 8.23 to 8.24 13.01 to 13.10 13.13 to 13.18 13.21 13.27 to 13.36	3.33 3.39 3.49 to 3.50 3.55 3.61 8.12 8.25 to 8.26 8.40 13.11 to 13.12 13.19 to 13.20 13.25 to 13.26 13.37 to 13.38