



IXL Skill Alignment

Alg 1 alignment for HMH Common Core Curriculum

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Module 1

Quantitative Reasoning

Textbook section	IXL skills	
1.1: Solving Equations	J.3	Solve one-step linear equations >>
	J.4	Solve two-step linear equations >>
1.2: Modeling Quantities	C.7	Scale drawings: word problems >>
	E.1	Convert rates and measurements: customary units >>
1.3: Reporting with Precision and Accuracy	E.4	Precision >>

Module 2

Algebraic Models

Textbook section	IXL skills	
2.1: Modeling with Expressions	I.1	Write variable expressions >>
	I.3	Identify equivalent linear expressions >>
2.2: Creating and Solving Equations	I.4	Write variable equations >>
	J.5	Solve advanced linear equations >>
	J.6	Solve equations with variables on both sides >>
	J.10	Solve linear equations: word problems >>
2.3: Solving for a Variable	I.8	Rearrange multi-variable equations >>
2.4: Creating and Solving Inequalities	K.8	Solve two-step linear inequalities >>
	K.10	Solve advanced linear inequalities >>
2.5: Creating and Solving Compound Inequalities	K.12	Graph compound inequalities >>
	K.13	Write compound inequalities from graphs >>
	K.14	Solve compound inequalities >>
	K.15	Graph solutions to compound inequalities >>

Module 3

Functions and Models

Textbook section	IXL skills	
3.1: Graphing Relationships		
3.2: Understanding Relations and Functions	Q.1	Relations: convert between tables, graphs, mappings, and lists of points >>
	Q.2	Domain and range of relations >>
	Q.4	Identify functions >>
	Q.5	Identify functions: vertical line test >>
3.3: Modeling with Functions	Q.3	Identify independent and dependent variables >>
3.4: Graphing Functions	Q.7	Evaluate a function >>
	Q.9	Complete a function table from a graph >>
	Q.10	Complete a function table from an equation >>

Module 4

Patterns and Sequences

Textbook section	IXL skills
4.1: Identifying and Graphing Sequences	P.4 Evaluate variable expressions for number sequences >>
4.2: Constructing Arithmetic Sequences	P.2 Arithmetic sequences >>
	P.5 Write variable expressions for arithmetic sequences >>
4.3: Modeling with Arithmetic Sequences	

Module 5

Linear Functions

Textbook section	IXL skills
5.1: Understanding Linear Functions	S.13 Complete a table and graph a linear function >>
	S.17 Standard form: graph an equation >>
5.2: Using Intercepts	S.16 Standard form: find x- and y-intercepts >>
5.3: Interpreting Rate of Change and Slope	S.2 Find the slope of a graph >>
	S.3 Find the slope from two points >>

Module 6

Forms of Linear Functions

Textbook section	IXL skills
6.1: Slope-Intercept Form	S.5 Slope-intercept form: find the slope and y-intercept >>
	S.6 Slope-intercept form: graph an equation >>
	S.8 Slope-intercept form: write an equation >>
	S.10 Slope-intercept form: write an equation from a word problem >>
6.2: Point-Slope Form	S.21 Point-slope form: write an equation >>
	S.22 Point-slope form: write an equation from a graph >>
6.3: Standard Form	S.15 Write equations in standard form >>
6.4: Transforming Linear Functions	S.25 Transformations of linear functions >>
6.5: Comparing Properties of Linear Functions	S.14 Compare linear functions: graphs, tables, and equations >>

Module 7

Linear Equations and Inequalities

Textbook section	IXL skills
7.1: Modeling Linear Relationships	S.12 Write linear functions to solve word problems >>
7.2: Using Functions to Solve One-Variable Equations	
7.3: Linear Inequalities in Two Variables	T.1 Does (x, y) satisfy the inequality? >> T.2 Linear inequalities: solve for y >> T.3 Graph a two-variable linear inequality >> T.4 Linear inequalities: word problems >>

Module 8

Multi-Variable Categorical Data

Textbook section	IXL skills
8.1: Two-Way Frequency Tables	
8.2: Relative Frequency	

Module 9

One-Variable Data Distributions

Textbook section	IXL skills	
9.1: Measures of Center and Spread	KK.2	Mean, median, mode, and range >>
	KK.3	Quartiles >>
9.2: Data Distributions and Outliers	KK.4	Identify an outlier >>
	KK.5	Identify an outlier and describe the effect of removing it >>
9.3: Histograms and Box Plots	N.5	Interpret box-and-whisker plots >>
9.4: Normal Distributions		

Module 10

Linear Modeling and Regression

Textbook section	IXL skills
10.1: Scatter Plots and Trend Lines	KK.8 Interpret a scatter plot >>
	KK.10 Match correlation coefficients to scatter plots >>
	KK.12 Scatter plots: line of best fit >>
10.2: Fitting a Linear Model to Data	KK.13 Find the equation of a regression line >>
	KK.14 Interpret regression lines >>
	KK.15 Analyze a regression line of a data set >>

Module 11

Solving Systems of Linear Equations

Textbook section	IXL skills
11.1: Solving Linear Systems by Graphing	U.2 Solve a system of equations by graphing >>
	U.3 Solve a system of equations by graphing: word problems >>
	U.4 Find the number of solutions to a system of equations by graphing >>
	U.6 Classify a system of equations by graphing >>
11.2: Solving Linear Systems by Substitution	U.8 Solve a system of equations using substitution >>
	U.9 Solve a system of equations using substitution: word problems >>
11.3: Solving Linear Systems by Adding or Subtracting	
11.4: Solving Linear Systems by Multiplying First	U.10 Solve a system of equations using elimination >>
	U.11 Solve a system of equations using elimination: word problems >>

Module 12

Modeling with Linear Systems

Textbook section	IXL skills	
12.1: Creating Systems of Linear Equations		
12.2: Graphing Systems of Linear Inequalities	T.5	Is (x, y) a solution to the system of inequalities? >>
	T.6	Solve systems of linear inequalities by graphing >>
12.3: Modeling with Linear Systems	U.15	Solve a system of equations using any method: word problems >>

Module 13

Piecewise-Defined Functions

Textbook section	IXL skills
13.1: Understanding Piecewise-Defined Functions	
13.2: Absolute Value Functions and Transformations	DD.1 Complete a function table: absolute value functions >> DD.2 Graph an absolute value function >> DD.3 Domain and range of absolute value functions: graphs >> DD.4 Domain and range of absolute value functions: equations >> DD.5 Transformations of absolute value functions >>
13.3: Solving Absolute Value Equations	L.1 Solve absolute value equations >> L.2 Graph solutions to absolute value equations >>
13.4: Solving Absolute Value Inequalities	L.3 Solve absolute value inequalities >> L.4 Graph solutions to absolute value inequalities >>

Module 14

Rational Exponents and Radicals

Textbook section	IXL skills	
14.1: Understanding Rational Exponents and Radicals	V.10	Evaluate integers raised to rational exponents >>
14.2: Simplifying Expressions with Rational Exponents and Radicals	EE.1	Simplify radical expressions >>
	EE.2	Simplify radical expressions with variables >>

Module 15

Geometric Sequences and Exponential Functions

Textbook section	IXL skills	
15.1: Understanding Geometric Sequences	P.3	Geometric sequences >>
15.2: Constructing Geometric Sequences	P.6	Write variable expressions for geometric sequences >>
15.3: Constructing Exponential Functions	X.1	Evaluate an exponential function >>
15.4: Graphing Exponential Functions		
15.5: Transforming Exponential Functions	X.2	Match exponential functions and graphs >>
	X.3	Domain and range of exponential functions: graphs >>

Module 16

Exponential Equations and Models

Textbook section	IXL skills
16.1: Using Graphs and Properties to Solve Equations with Exponents	
16.2: Modeling Exponential Growth and Decay	X.5 Exponential growth and decay: word problems >>
16.3: Using Exponential Regression Models	
16.4: Comparing Linear and Exponential Models	

Module 17

Adding and Subtracting Polynomials

Textbook section	IXL skills	
17.1: Understanding Polynomial Expressions	Y.1	Identify monomials >>
	Z.1	Polynomial vocabulary >>
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17.2: Adding Polynomial Expressions		
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17.3: Subtracting Polynomial Expressions	Z.3	Add and subtract polynomials using algebra tiles >>
	Z.4	Add and subtract polynomials >>

Module 18

Multiplying Polynomials

Textbook section	IXL skills	
18.1: Multiplying Polynomial Expressions by Monomials	Z.6	Multiply a polynomial by a monomial >>
18.2: Multiplying Polynomial Expressions	Z.7	Multiply two polynomials using algebra tiles >>
	Z.8	Multiply two binomials >>
18.3: Special Products of Binomials	Z.9	Multiply two binomials: special cases >>
	Z.10	Multiply polynomials >>

Module 19

Graphing Quadratic Functions

Textbook section	IXL skills	
19.1: Understanding Quadratic Functions		
19.2: Transforming Quadratic Functions	BB.3	Transformations of quadratic functions >>
	BB.4	Graph quadratic functions in vertex form >>
19.3: Interpreting Vertex Form and Standard Form	BB.1	Characteristics of quadratic functions >>

Module 20

Connecting Intercepts, Zeros, and Factors

Textbook section	IXL skills
20.1: Connecting Intercepts and Zeros	
20.2: Connecting Intercepts and Linear Factors	
20.3: Applying the Zero Product Property to Solve Equations	BB.6 Solve a quadratic equation using the zero product property >>

Module 21

Using Factors to Solve Quadratic Equations

Textbook section	IXL skills	
21.1: Solving Equations by Factoring $x^2 + bx + c$	AA.4	Factor quadratics with leading coefficient 1 >>
21.2: Solving Equations by Factoring $ax^2 + bx + c$	AA.3	Factor quadratics using algebra tiles >>
	AA.5	Factor quadratics with other leading coefficients >>
21.3: Using Special Factors to Solve Equations	AA.6	Factor quadratics: special cases >>
	BB.7	Solve a quadratic equation by factoring >>

Module 22

Using Square Roots to Solve Quadratic Equations

Textbook section	IXL skills
22.1: Solving Equations by Taking Square Roots	BB.5 Solve a quadratic equation using square roots >>
22.2: Solving Equations by Completing the Square	BB.8 Complete the square >> BB.9 Solve a quadratic equation by completing the square >>
22.3: Using the Quadratic Formula to Solve Equations	BB.10 Solve a quadratic equation using the quadratic formula >>
22.4: Choosing a Method for Solving Quadratic Equations	
22.5: Solving Nonlinear Systems	BB.13 Systems of linear and quadratic equations >>

Module 23

Linear, Exponential, and Quadratic Models

Textbook section	IXL skills
23.1: Modeling with Quadratic Functions	
23.2: Comparing Linear, Exponential, and Quadratic Models	CC.1 Identify linear, quadratic, and exponential functions from graphs >> CC.2 Identify linear, quadratic, and exponential functions from tables >>

Module 24

Functions and Inverses

Textbook section	IXL skills
24.1: Graphing Polynomial Functions	
24.2: Understanding Inverse Functions	
24.3: Graphing Square Root Functions	
24.4: Graphing Cube Root Functions	