



# IXL Skill Alignment

Alg 1 alignment for HMH Texas

This document includes the IXL skill alignments to Houghton Mifflin Harcourt's [HMH Texas](#). IXL provides skill alignments as a service to teachers, students, and parents. The following skill alignments are not affiliated with, sponsored by, or endorsed by the publisher of the referenced textbook. IXL and IXL Learning are registered trademarks of IXL Learning, Inc. All other trademarks and registered trademarks are the property of their respective owners.

# Module 1

## Quantitative Reasoning

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

# Module 2

## Algebraic Models

Textbook section	IXL skills
<b>2.1:</b> Modeling with Expressions	<b>I.1</b> Write variable expressions >>
	<b>I.3</b> Identify equivalent linear expressions >>
<b>2.2:</b> Creating and Solving Equations	<b>I.4</b> Write variable equations >>
	<b>J.5</b> Solve advanced linear equations >>
	<b>J.6</b> Solve equations with variables on both sides >>
	<b>J.10</b> Solve linear equations: word problems >>
<b>2.3:</b> Solving for a Variable	<b>I.8</b> Rearrange multi-variable equations >>
<b>2.4:</b> Creating and Solving Inequalities	<b>K.8</b> Solve two-step linear inequalities >>
	<b>K.10</b> Solve advanced linear inequalities >>

# Module 3

## Functions and Models

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

# Module 4

## Patterns and Sequences

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

# Module 5

## Linear Functions

Textbook section	IXL skills
<b>5.1:</b> Understanding Linear Functions	<b>S.13</b> Complete a table and graph a linear function >>
	<b>S.17</b> Standard form: graph an equation >>
<b>5.2:</b> Using Intercepts	<b>S.16</b> Standard form: find x- and y-intercepts >>
<b>5.3:</b> Interpreting Rate of Change and Slope	<b>S.2</b> Find the slope of a graph >>
	<b>S.3</b> Find the slope from two points >>
<b>5.4:</b> Direct Variation	<b>R.4</b> Write direct variation equations >>
	<b>R.5</b> Write and solve direct variation equations >>

# Module 6

## Forms of Linear Functions

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

# Module 7

## Linear Equations and Inequalities

Textbook section	IXL skills
<b>7.1:</b> Parallel and Perpendicular Lines	<b>S.23</b> Slopes of parallel and perpendicular lines >>
	<b>S.24</b> Write an equation for a parallel or perpendicular line >>
<hr/>	
<b>7.2:</b> Using Functions to Solve One-Variable Equations	
<hr/>	
<b>7.3:</b> Linear Inequalities in Two Variables	<b>T.1</b> Does $(x, y)$ satisfy the inequality? >>
	<b>T.2</b> Linear inequalities: solve for $y$ >>
	<b>T.3</b> Graph a two-variable linear inequality >>
	<b>T.4</b> Linear inequalities: word problems >>



# Module 8

## Linear Modeling and Regression

Textbook section	IXL skills
<b>8.1:</b> Scatter Plots and Trend Lines	<b>KK.8</b> Interpret a scatter plot >> <b>KK.10</b> Match correlation coefficients to scatter plots >> <b>KK.12</b> Scatter plots: line of best fit >>
<b>8.2:</b> Fitting a Linear Model to Data	<b>KK.13</b> Find the equation of a regression line >> <b>KK.14</b> Interpret regression lines >> <b>KK.15</b> Analyze a regression line of a data set >>

# Module 9

## Solving Systems of Linear Equations

Textbook section	IXL skills
<b>9.1:</b> Solving Linear Systems by Graphing	<b>U.2</b> Solve a system of equations by graphing >>
	<b>U.3</b> Solve a system of equations by graphing: word problems >>
	<b>U.4</b> Find the number of solutions to a system of equations by graphing >>
	<b>U.6</b> Classify a system of equations by graphing >>
<b>9.2:</b> Solving Linear Systems by Substitution	<b>U.8</b> Solve a system of equations using substitution >>
	<b>U.9</b> Solve a system of equations using substitution: word problems >>
<b>9.3:</b> Solving Linear Systems by Adding or Subtracting	
<b>9.4:</b> Solving Linear Systems by Multiplying First	<b>U.10</b> Solve a system of equations using elimination >>
	<b>U.11</b> Solve a system of equations using elimination: word problems >>

# Module 10

## Modeling with Linear Systems

Textbook section	IXL skills
<b>10.1:</b> Creating Systems of Linear Equations	
<b>10.2:</b> Graphing Systems of Linear Inequalities	<b>T.5</b> Is $(x, y)$ a solution to the system of inequalities? >> <b>T.6</b> Solve systems of linear inequalities by graphing >>
<b>10.3:</b> Modeling with Linear Systems	<b>U.15</b> Solve a system of equations using any method: word problems >>

# Module 11

## Rational Exponents and Radicals

Textbook section	IXL skills
<b>11.1:</b> Understanding Rational Exponents and Radicals	<b>V.10</b> Evaluate integers raised to rational exponents >>
<b>11.2:</b> Simplifying Expressions with Rational Exponents and Radicals	<b>EE.1</b> Simplify radical expressions >> <b>EE.2</b> Simplify radical expressions with variables >>

# Module 12

## Geometric Sequences and Exponential Functions

Textbook section	IXL skills
<b>12.1:</b> Understanding Geometric Sequences	<b>P.3</b> <a href="#">Geometric sequences &gt;&gt;</a>
<b>12.2:</b> Constructing Geometric Sequences	<b>P.6</b> <a href="#">Write variable expressions for geometric sequences &gt;&gt;</a>
<b>12.3:</b> Constructing Exponential Functions	<b>X.1</b> <a href="#">Evaluate an exponential function &gt;&gt;</a>
<b>12.4:</b> Graphing Exponential Functions	

# Module 13

## Exponential Equations and Models

Textbook section	IXL skills
<b>13.1:</b> Using Graphs and Properties to Solve Equations with Exponents	
<b>13.2:</b> Modeling Exponential Growth and Decay	<b>X.5</b> Exponential growth and decay: word problems >>
<b>13.3:</b> Using Exponential Regression Models	
<b>13.4:</b> Comparing Linear and Exponential Models	

# Module 14

## Adding and Subtracting Polynomials

Textbook section	IXL skills
<b>14.1:</b> Understanding Polynomial Expressions	<b>Y.1</b> Identify monomials >> <b>Z.1</b> Polynomial vocabulary >>
<b>14.2:</b> Adding Polynomial Expressions	
<b>14.3:</b> Subtracting Polynomial Expressions	<b>Z.3</b> Add and subtract polynomials using algebra tiles >> <b>Z.4</b> Add and subtract polynomials >>

# Module 15

## Multiplying and Dividing Polynomials

Textbook section	IXL skills
<b>15.1:</b> Multiplying Polynomial Expressions by Monomials	<b>Z.6</b> Multiply a polynomial by a monomial >>
<b>15.2:</b> Multiplying Polynomial Expressions	<b>Z.7</b> Multiply two polynomials using algebra tiles >>
	<b>Z.8</b> Multiply two binomials >>
<b>15.3:</b> Special Products of Binomials	<b>Z.9</b> Multiply two binomials: special cases >>
	<b>Z.10</b> Multiply polynomials >>
<b>15.4:</b> Dividing Polynomial Expressions	<b>GG.5</b> Divide polynomials >>



# Module 16

## Graphing Quadratic Functions

Textbook section	IXL skills
<b>16.1:</b> Understanding Quadratic Functions	
<b>16.2:</b> Transforming Quadratic Functions	<b>BB.3</b> Transformations of quadratic functions >> <b>BB.4</b> Graph quadratic functions in vertex form >>
<b>16.3:</b> Interpreting Vertex Form and Standard Form	<b>BB.1</b> Characteristics of quadratic functions >>

# Module 17

## Connecting Intercepts, Zeros, and Factors

Textbook section	IXL skills
17.1: Connecting Intercepts and Zeros	
17.2: Connecting Intercepts and Linear Factors	
17.3: Applying the Zero Product Property to Solve Equations	<b>BB.6</b> Solve a quadratic equation using the zero product property >>

# Module 18

## Using Factors to Solve Quadratic Equations

Textbook section	IXL skills
<b>18.1:</b> Solving Equations by Factoring $x^2 + bx + c$	<b>AA.4</b> Factor quadratics with leading coefficient 1 >>
<b>18.2:</b> Solving Equations by Factoring $ax^2 + bx + c$	<b>AA.3</b> Factor quadratics using algebra tiles >> <b>AA.5</b> Factor quadratics with other leading coefficients >>
<b>18.3:</b> Using Special Factors to Solve Equations	<b>AA.6</b> Factor quadratics: special cases >> <b>BB.7</b> Solve a quadratic equation by factoring >>

# Module 19

## Using Square Roots to Solve Quadratic Equations

Textbook section	IXL skills
<b>19.1:</b> Solving Equations by Taking Square Roots	<b>BB.5</b> Solve a quadratic equation using square roots >>
<b>19.2:</b> Solving Equations by Completing the Square	<b>BB.8</b> Complete the square >> <b>BB.9</b> Solve a quadratic equation by completing the square >>
<b>19.3:</b> Using the Quadratic Formula to Solve Equations	<b>BB.10</b> Solve a quadratic equation using the quadratic formula >>
<b>19.4:</b> Choosing a Method for Solving Quadratic Equations	

# Module 20

## Linear, Exponential, and Quadratic Models

Textbook section	IXL skills
<b>20.1:</b> Modeling with Quadratic Functions	
<b>20.2:</b> Comparing Linear, Exponential, and Quadratic Models	<b>CC.1</b> Identify linear, quadratic, and exponential functions from graphs >> <b>CC.2</b> Identify linear, quadratic, and exponential functions from tables >>