



# IXL Skill Alignment

Int 1 alignment for HMH Integrated Math

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# Module 1

## Quantitative Reasoning

Textbook section	IXL skills	
<b>1.1:</b> Solving Equations	<b>A1-H.4</b>	Properties of equality >>
	<b>A1-J.3</b>	Solve one-step linear equations >>
	<b>A1-J.4</b>	Solve two-step linear equations >>
	<b>A1-J.10</b>	Solve linear equations: word problems >>
<b>1.2:</b> Modeling Quantities	<b>A1-C.6</b>	Solve proportions: word problems >>
	<b>A1-C.7</b>	Scale drawings: word problems >>
	<b>A1-E.1</b>	Convert rates and measurements: customary units >>
	<b>A1-E.2</b>	Convert rates and measurements: metric units >>
<b>1.3:</b> Reporting with Precision and Accuracy	<b>A1-E.4</b>	Precision >>
	<b>A1-E.6</b>	Minimum and maximum area and volume >>

# Module 2

## Algebraic Models

Textbook section	IXL skills	
<b>2.1:</b> Modeling with Expressions	<b>A1-I.1</b>	Write variable expressions >>
<b>2.2:</b> Creating and Solving Equations	<b>A1-I.4</b>	Write variable equations >>
	<b>A1-J.5</b>	Solve advanced linear equations >>
	<b>A1-J.6</b>	Solve equations with variables on both sides >>
	<b>A1-J.7</b>	Solve equations: complete the solution >>
<b>2.3:</b> Solving for a Variable	<b>A1-I.8</b>	Rearrange multi-variable equations >>
<b>2.4:</b> Creating and Solving Inequalities	<b>A1-K.8</b>	Solve two-step linear inequalities >>
	<b>A1-K.10</b>	Solve advanced linear inequalities >>
<b>2.5:</b> Creating and Solving Compound Inequalities	<b>A1-K.12</b>	Graph compound inequalities >>
	<b>A1-K.13</b>	Write compound inequalities from graphs >>
	<b>A1-K.14</b>	Solve compound inequalities >>
	<b>A1-K.15</b>	Graph solutions to compound 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>A1-Q.1</b>	Relations: convert between tables, graphs, mappings, and lists of points >>
	<b>A1-Q.2</b>	Domain and range of relations >>
	<b>A1-Q.4</b>	Identify functions >>
	<b>A1-Q.5</b>	Identify functions: vertical line test >>
<b>3.3:</b> Modeling with Functions	<b>A1-Q.3</b>	Identify independent and dependent variables >>
	<b>A1-Q.7</b>	Evaluate a function >>
<b>3.4:</b> Graphing Functions	<b>A1-Q.6</b>	Find values using function graphs >>
	<b>A1-Q.10</b>	Complete a function table from an equation >>
	<b>A1-Q.11</b>	Interpret the graph of a function: word problems >>

# Module 4

## Patterns and Sequences

Textbook section	IXL skills	
<b>4.1:</b> Identifying and Graphing Sequences	<b>A1-P.4</b>	Evaluate variable expressions for number sequences >>
<b>4.2:</b> Constructing Arithmetic Sequences	<b>A1-P.2</b>	Arithmetic sequences >>
	<b>A1-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>A1-S.13</b>	Complete a table and graph a linear function >>
	<b>A1-S.17</b>	Standard form: graph an equation >>
<b>5.2:</b> Using Intercepts	<b>A1-S.16</b>	Standard form: find x- and y-intercepts >>
<b>5.3:</b> Interpreting Rate of Change and Slope	<b>A1-S.2</b>	Find the slope of a graph >>
	<b>A1-S.3</b>	Find the slope from two points >>

# Module 6

## Forms of Linear Equations

Textbook section	IXL skills	
<b>6.1:</b> Slope-Intercept Form	<b>A1-S.5</b>	Slope-intercept form: find the slope and y-intercept >>
	<b>A1-S.6</b>	Slope-intercept form: graph an equation >>
	<b>A1-S.7</b>	Slope-intercept form: write an equation from a graph >>
	<b>A1-S.8</b>	Slope-intercept form: write an equation >>
<b>6.2:</b> Point-Slope Form	<b>A1-S.21</b>	Point-slope form: write an equation >>
	<b>A1-S.22</b>	Point-slope form: write an equation from a graph >>
<b>6.3:</b> Standard Form	<b>A1-S.15</b>	Write equations in standard form >>
<b>6.4:</b> Transforming Linear Functions	<b>A1-S.25</b>	Transformations of linear functions >>
<b>6.5:</b> Comparing Properties of Linear Functions	<b>A1-S.14</b>	Compare linear functions: graphs, tables, and equations >>

# Module 7

## Linear Equations and Inequalities

Textbook section	IXL skills	
7.1: Modeling Linear Relationships	A1-S.10	Slope-intercept form: write an equation from a word problem >>
	A1-S.12	Write linear functions to solve word problems >>
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7.2: Using Functions to Solve One-Variable Equations		
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7.3: Linear Inequalities in Two Variables	A1-T.2	Linear inequalities: solve for y >>
	A1-T.3	Graph a two-variable linear inequality >>
	A1-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	
<b>9.1:</b> Measures of Center and Spread	<b>A1-KK.2</b>	Mean, median, mode, and range >>
	<b>A1-KK.3</b>	Quartiles >>
	<b>A1-KK.7</b>	Variance and standard deviation >>
<b>9.2:</b> Data Distributions and Outliers	<b>A1-KK.4</b>	Identify an outlier >>
	<b>A1-KK.5</b>	Identify an outlier and describe the effect of removing it >>
<b>9.3:</b> Histograms and Box Plots	<b>A1-N.1</b>	Interpret bar graphs, line graphs, and histograms >>
	<b>A1-N.5</b>	Interpret box-and-whisker plots >>
<b>9.4:</b> Normal Distributions		

# Module 10

## Linear Modeling and Regression

Textbook section	IXL skills
<b>10.1:</b> Scatter Plots and Trend Lines	<b>A1-KK.8</b> Interpret a scatter plot >>
	<b>A1-KK.10</b> Match correlation coefficients to scatter plots >>
	<b>A1-KK.12</b> Scatter plots: line of best fit >>
<b>10.2:</b> Fitting a Linear Model to Data	<b>A1-KK.13</b> Find the equation of a regression line >>
	<b>A1-KK.14</b> Interpret regression lines >>
	<b>A1-KK.15</b> Analyze a regression line of a data set >>

# Module 11

## Solving Systems of Linear Equations

Textbook section	IXL skills	
<b>11.1:</b> Solving Linear Systems by Graphing	<b>A1-U.2</b>	Solve a system of equations by graphing >>
	<b>A1-U.3</b>	Solve a system of equations by graphing: word problems >>
	<b>A1-U.4</b>	Find the number of solutions to a system of equations by graphing >>
	<b>A1-U.6</b>	Classify a system of equations by graphing >>
<b>11.2:</b> Solving Linear Systems by Substitution	<b>A1-U.5</b>	Find the number of solutions to a system of equations >>
	<b>A1-U.8</b>	Solve a system of equations using substitution >>
	<b>A1-U.9</b>	Solve a system of equations using substitution: word problems >>
<b>11.3:</b> Solving Linear Systems by Adding or Subtracting		
<b>11.4:</b> Solving Linear Systems by Multiplying First	<b>A1-U.10</b>	Solve a system of equations using elimination >>
	<b>A1-U.11</b>	Solve a system of equations using elimination: word problems >>
	<b>A1-U.14</b>	Solve a system of equations using any method >>

# Module 12

## Modeling with Linear Systems

Textbook section	IXL skills	
<b>12.1:</b> Creating Systems of Linear Equations	<b>A1-U.15</b>	Solve a system of equations using any method: word problems >>
<b>12.2:</b> Graphing Systems of Linear Inequalities	<b>A1-T.5</b>	Is $(x, y)$ a solution to the system of inequalities? >>
	<b>A1-T.6</b>	Solve systems of linear inequalities by graphing >>
<b>12.3:</b> Modeling with Linear Systems		

# Module 13

## Piecewise-Defined Functions

Textbook section	IXL skills	
<b>13.1:</b> Understanding Piecewise-Defined Functions		
<b>13.2:</b> Absolute Value Functions and Transformations	<b>A1-DD.1</b>	Complete a function table: absolute value functions >>
	<b>A1-DD.2</b>	Graph an absolute value function >>
	<b>A1-DD.3</b>	Domain and range of absolute value functions: graphs >>
	<b>A1-DD.4</b>	Domain and range of absolute value functions: equations >>
	<b>A1-DD.5</b>	Transformations of absolute value functions >>
<b>13.3:</b> Solving Absolute Value Equations	<b>A1-L.1</b>	Solve absolute value equations >>
	<b>A1-L.2</b>	Graph solutions to absolute value equations >>
<b>13.4:</b> Solving Absolute Value Inequalities	<b>A1-L.3</b>	Solve absolute value inequalities >>
	<b>A1-L.4</b>	Graph solutions to absolute value inequalities >>

# Module 14

## Geometric Sequences and Exponential Functions

Textbook section	IXL skills	
<b>14.1:</b> Understanding Geometric Sequences	<b>A1-P.3</b>	<a href="#">Geometric sequences &gt;&gt;</a>
<b>14.2:</b> Constructing Geometric Sequences	<b>A1-P.6</b>	<a href="#">Write variable expressions for geometric sequences &gt;&gt;</a>
<b>14.3:</b> Constructing Exponential Functions	<b>A1-X.1</b>	<a href="#">Evaluate an exponential function &gt;&gt;</a>
<b>14.4:</b> Graphing Exponential Functions	<b>A1-X.4</b>	<a href="#">Domain and range of exponential functions: equations &gt;&gt;</a>
<b>14.5:</b> Transforming Exponential Functions	<b>A1-X.2</b>	<a href="#">Match exponential functions and graphs &gt;&gt;</a>
	<b>A1-X.3</b>	<a href="#">Domain and range of exponential functions: graphs &gt;&gt;</a>

# Module 15

## Exponential Equations and Models

Textbook section	IXL skills	
<b>15.1:</b> Using Graphs and Properties to Solve Equations with Exponents		
<b>15.2:</b> Modeling Exponential Growth and Decay	<b>A1-X.5</b>	Exponential growth and decay: word problems >>
<b>15.3:</b> Using Exponential Regression Models		
<b>15.4:</b> Comparing Linear and Exponential Models	<b>A1-CC.6</b>	Describe linear and exponential growth and decay >>



# Module 16

## Tools of Geometry

Textbook section	IXL skills	
<b>16.1:</b> Segment Length and Midpoints	<b>G-B.3</b>	Additive property of length >>
	<b>G-B.7</b>	Midpoint formula - find the midpoint >>
	<b>G-B.9</b>	Distance formula >>
<b>16.2:</b> Angle Measures and Angle Bisectors	<b>G-C.1</b>	Angle vocabulary >>
	<b>G-C.2</b>	Angle measures >>
<b>16.3:</b> Representing and Describing Transformations	<b>G-L.1</b>	Classify congruence transformations >>
<b>16.4:</b> Reasoning and Proof	<b>G-I.1</b>	Identify hypotheses and conclusions >>
	<b>G-I.2</b>	Counterexamples >>
	<b>G-I.3</b>	Conditionals >>

# Module 17

## Transformations and Symmetry

Textbook section	IXL skills	
<b>17.1:</b> Translations	<b>G-L.3</b>	Translations: find the coordinates >>
	<b>G-L.4</b>	Translations: write the rule >>
	<b>G-Y.3</b>	Find the component form of a vector >>
<b>17.2:</b> Reflections	<b>G-L.5</b>	Reflections: graph the image >>
	<b>G-L.6</b>	Reflections: find the coordinates >>
<b>17.3:</b> Rotations	<b>G-L.7</b>	Rotate polygons about a point >>
	<b>G-L.8</b>	Rotations: graph the image >>
	<b>G-L.9</b>	Rotations: find the coordinates >>
	<b>G-L.12</b>	Congruence transformations: mixed review >>
<b>17.4:</b> Investigating Symmetry	<b>G-O.1</b>	Line symmetry >>
	<b>G-O.2</b>	Rotational symmetry >>
	<b>G-O.3</b>	Draw lines of symmetry >>
	<b>G-O.4</b>	Count lines of symmetry >>

# Module 18

## Congruent Figures

Textbook section	IXL skills	
18.1: Sequences of Transformations	G-L.10	Compositions of congruence transformations: graph the image >>
	G-L.13	Dilations: graph the image >>
	G-L.14	Dilations: find the coordinates >>
18.2: Proving Figures are Congruent Using Rigid Motions		
18.3: Corresponding Parts of Congruent Figures are Congruent	G-J.1	Congruence statements and corresponding parts >>
	G-J.2	Solve problems involving corresponding parts >>
	G-J.3	Identify congruent figures >>

# Module 19

## Lines and Angles

Textbook section	IXL skills	
<b>19.1:</b> Angles Formed by Intersecting Lines	<b>G-C.3</b>	Identify complementary, supplementary, vertical, adjacent, and congruent angles >>
	<b>G-C.4</b>	Find measures of complementary, supplementary, vertical, and adjacent angles >>
<b>19.2:</b> Transversals and Parallel Lines	<b>G-D.3</b>	Transversals: name angle pairs >>
	<b>G-D.4</b>	Transversals of parallel lines: find angle measures >>
<b>19.3:</b> Proving Lines are Parallel	<b>G-D.6</b>	Proofs involving parallel lines I >>
<b>19.4:</b> Perpendicular Lines	<b>G-B.6</b>	Perpendicular Bisector Theorem >>
	<b>G-D.2</b>	Construct a perpendicular line >>
<b>19.5:</b> Equations of Parallel and Perpendicular Lines	<b>G-E.5</b>	Slopes of parallel and perpendicular lines >>
	<b>G-E.6</b>	Equations of parallel and perpendicular lines >>

# Module 20

## Triangle Congruence Criteria

Textbook section	IXL skills	
<b>20.1:</b> Exploring What Makes Triangles Congruent		
<b>20.2:</b> ASA Triangle Congruence		
<b>20.3:</b> SAS Triangle Congruence		
<b>20.4:</b> SSS Triangle Congruence	<b>G-K.1</b>	SSS and SAS Theorems >>
	<b>G-K.2</b>	Proving triangles congruent by SSS and SAS >>

# Module 21

## Applications of Triangle Congruence

Textbook section	IXL skills	
21.2: Justifying Constructions		
21.2: AAS Triangle Congruence	G-K.3	ASA and AAS Theorems >>
	G-K.4	Proving triangles congruent by ASA and AAS >>
	G-K.5	SSS, SAS, ASA, and AAS Theorems >>
	G-K.7	Proving triangles congruent by SSS, SAS, ASA, and AAS >>
21.3: HL Triangle Congruence	G-K.8	Proofs involving corresponding parts of congruent triangles >>
	G-K.11	Hypotenuse-Leg Theorem >>

# Module 22

## Properties of Triangles

Textbook section	IXL skills	
<b>22.1:</b> Interior and Exterior Angles	<b>G-F.2</b>	Triangle Angle-Sum Theorem >>
	<b>G-F.3</b>	Exterior Angle Theorem >>
	<b>G-G.2</b>	Interior angles of polygons >>
<b>22.2:</b> Isosceles and Equilateral Triangles	<b>G-K.9</b>	Congruency in isosceles and equilateral triangles >>
	<b>G-K.10</b>	Proofs involving isosceles triangles >>
<b>22.3:</b> Triangle Inequalities	<b>G-M.4</b>	Angle-side relationships in triangles >>
	<b>G-M.5</b>	Triangle Inequality Theorem >>

# Module 23

## Special Segments in Triangles

Textbook section	IXL skills	
<b>23.1:</b> Perpendicular Bisectors of Triangles		
<b>23.2:</b> Angle Bisectors of Triangles	<b>G-M.2</b>	Triangles and bisectors >>
<b>23.3:</b> Medians and Altitudes of Triangles	<b>G-M.3</b>	Identify medians, altitudes, angle bisectors, and perpendicular bisectors >>
<b>23.4:</b> Midsegments of Triangles		



# Module 24

## Properties of Quadrilaterals

Textbook section	IXL skills	
<b>24.1:</b> Properties of Parallelograms	<b>G-N.4</b>	Properties of parallelograms >>
<b>24.2:</b> Conditions for Parallelograms	<b>G-N.5</b>	Proving a quadrilateral is a parallelogram >>
<b>24.3:</b> Properties of Rectangles, Rhombuses, and Squares	<b>G-N.6</b>	Properties of rhombuses >>
	<b>G-N.7</b>	Properties of squares and rectangles >>
<b>24.4:</b> Conditions for Rectangles, Rhombuses, and Squares		
<b>24.5:</b> Properties and Conditions for Kites and Trapezoids	<b>G-N.8</b>	Properties of trapezoids >>
	<b>G-N.9</b>	Properties of kites >>
	<b>G-N.10</b>	Review: properties of quadrilaterals >>
	<b>G-N.11</b>	Proofs involving quadrilaterals I >>
	<b>G-N.12</b>	Proofs involving quadrilaterals II >>

# Module 25

## Coordinate Proof Using Slope and Distance

Textbook section	IXL skills	
<b>25.1:</b> Slope and Parallel Lines		
<b>25.2:</b> Slope and Perpendicular Lines		
<b>25.3:</b> Coordinate Proof Using Distance with Segments and Triangles	<b>G-K.6</b>	SSS Theorem in the coordinate plane >>
<b>25.4:</b> Coordinate Proof Using Distance with Quadrilaterals	<b>G-E.8</b>	Find the distance between two parallel lines >>
<b>25.5:</b> Perimeter and Area on the Coordinate Plane	<b>G-S.5</b>	Area and perimeter in the coordinate plane I >>
	<b>G-S.6</b>	Area and perimeter in the coordinate plane II >>