



IXL Skill Alignment

Alg 1 alignment for EngageNY Common Core Curriculum

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Module 1

Relationships Between Quantities and Reasoning with Equations and Their Graphs

Textbook section	IXL skills
Topic A: Introduction to Functions Studied this Year - Graphing Stories	Q.11 Interpret the graph of a function: word problems >>
Topic B: The Structure of Expressions	<p>Z.1 Polynomial vocabulary >></p> <p>Z.4 Add and subtract polynomials >></p> <p>Z.6 Multiply a polynomial by a monomial >></p> <p>Z.8 Multiply two binomials >></p> <p>Z.9 Multiply two binomials: special cases >></p> <p>Z.10 Multiply polynomials >></p> <p><i>See also:</i></p> <p>H.2 Distributive property >></p> <p>H.3 Simplify variable expressions using properties >></p> <p>I.3 Identify equivalent linear expressions >></p> <p>V.6 Multiplication and division with exponents >></p>
Topic C: Solving Equations and Inequalities	<p>I.8 Rearrange multi-variable equations >></p> <p>J.5 Solve advanced linear equations >></p> <p>J.6 Solve equations with variables on both sides >></p> <p>J.7 Solve equations: complete the solution >></p> <p>K.6 Solve one-step linear inequalities >></p> <p>K.7 Graph solutions to one-step linear inequalities >></p> <p>K.8 Solve two-step linear inequalities >></p> <p>K.9 Graph solutions to two-step linear inequalities >></p> <p>K.10 Solve advanced linear inequalities >></p> <p>K.11 Graph solutions to advanced linear inequalities >></p> <p>K.12 Graph compound inequalities >></p>

- K.13** Write compound inequalities from graphs >>
- K.14** Solve compound inequalities >>
- K.15** Graph solutions to compound inequalities >>
- T.3** Graph a two-variable linear inequality >>
- T.6** Solve systems of linear inequalities by graphing >>
- U.2** Solve a system of equations by graphing >>
- U.3** Solve a system of equations by graphing: word problems >>
- U.10** Solve a system of equations using elimination >>
- BB.6** Solve a quadratic equation using the zero product property >>

See also:

- H.4** Properties of equality >>
- I.5** Does x satisfy the equation? >>
- I.6** Which x satisfies an equation? >>
- J.9** Create equations with no solutions or infinitely many solutions >>
- T.1** Does (x, y) satisfy the inequality? >>
- T.5** Is (x, y) a solution to the system of inequalities? >>
- U.8** Solve a system of equations using substitution >>
- U.11** Solve a system of equations using elimination: word problems >>

Topic D: Creating Equations to Solve Problems

See also:

- O.3** Consecutive integer problems >>
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Module 2

Descriptive Statistics

Textbook section	IXL skills
Topic A: Shapes and Centers of Distributions	N.5 Interpret box-and-whisker plots >>
Topic B: Describing Variability and Comparing Distributions	KK.7 Variance and standard deviation >> <i>See also:</i> KK.3 Quartiles >> KK.4 Identify an outlier >>
Topic C: Categorical Data on Two Variables	
Topic D: Numerical Data on Two Variables	KK.10 Match correlation coefficients to scatter plots >> KK.11 Calculate correlation coefficients >> KK.13 Find the equation of a regression line >> KK.14 Interpret regression lines >> KK.15 Analyze a regression line of a data set >> <i>See also:</i> KK.8 Interpret a scatter plot >>

Module 3

Linear and Exponential Functions

Textbook section	IXL skills
Topic A: Linear and Exponential Sequences	P.1 Identify arithmetic and geometric sequences >>
	P.4 Evaluate variable expressions for number sequences >>
	P.5 Write variable expressions for arithmetic sequences >>
	X.5 Exponential growth and decay: word problems >>
	<i>See also:</i>
	P.2 Arithmetic sequences >>
	P.3 Geometric sequences >>
Topic B: Functions and Their Graphs	Q.1 Relations: convert between tables, graphs, mappings, and lists of points >>
	Q.7 Evaluate a function >>
	Q.8 Evaluate a function: plug in an expression >>
	Q.10 Complete a function table from an equation >>
	Q.11 Interpret the graph of a function: word problems >>
	<i>See also:</i>
	Q.2 Domain and range of relations >>
	Q.4 Identify functions >>
Topic C: Transformations of Functions	DD.1 Complete a function table: absolute value functions >>
	DD.2 Graph an absolute value function >>
	DD.5 Transformations of absolute value functions >>
	<i>See also:</i>
	DD.3 Domain and range of absolute value functions: graphs >>

Topic D: Using Functions and Graphs to Solve Problems

Module 4

Polynomial and Quadratic Expressions, Equations, and Functions

Textbook section	IXL skills
Topic A: Quadratic Expressions, Equations, Functions, and Their Connection to Rectangles	AA.2 Factor out a monomial >>
	AA.4 Factor quadratics with leading coefficient 1 >>
	AA.5 Factor quadratics with other leading coefficients >>
	AA.6 Factor quadratics: special cases >>
	BB.6 Solve a quadratic equation using the zero product property >>
	BB.7 Solve a quadratic equation by factoring >>
	<i>See also:</i>
	AA.1 GCF of monomials >>
	BB.5 Solve a quadratic equation using square roots >>
	BB.12 Match quadratic functions and graphs >>
Topic B: Using Different Forms for Quadratic Functions	BB.1 Characteristics of quadratic functions >>
	BB.4 Graph quadratic functions in vertex form >>
	BB.9 Solve a quadratic equation by completing the square >>
	BB.10 Solve a quadratic equation using the quadratic formula >>
	BB.11 Using the discriminant >>
	<i>See also:</i>
	BB.8 Complete the square >>
Topic C: Function Transformations and Modeling	BB.3 Transformations of quadratic functions >>
	DD.5 Transformations of absolute value functions >>
	<i>See also:</i>
	S.25 Transformations of linear functions >>
	FF.2 Domain and range of radical functions: graphs >>

Module 5

A Synthesis of Modeling with Equations and Functions

Textbook section	IXL skills
Topic A: Elements of Modeling	S.10 Slope-intercept form: write an equation from a word problem >>
	S.12 Write linear functions to solve word problems >>
	CC.2 Identify linear, quadratic, and exponential functions from tables >>
	<i>See also:</i> CC.1 Identify linear, quadratic, and exponential functions from graphs >>
Topic B: Completing the Modeling Cycle	X.5 Exponential growth and decay: word problems >>
	CC.3 Write linear, quadratic, and exponential functions >>
	KK.13 Find the equation of a regression line >>
	KK.14 Interpret regression lines >>
	KK.15 Analyze a regression line of a data set >>