



IXL Skill Alignment

Algebra 1 alignment for Algebra 1 Analyze Connect Explore



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Module 1

Relationships Between Quantities

Textbook section	IXL skills
Lesson 1.1: Precision and Significant Digits	1. Precision QK9
Lesson 1.2: Dimensional Analysis	1. Scale drawings: word problems 8B7 2. Convert rates and measurements: customary units TXC 3. Convert rates and measurements: metric units 6W2

Module 2

Exponents and Real Numbers

Textbook section	IXL skills
Lesson 2.1: Radicals and Rational Exponents	1. Evaluate integers raised to rational exponents PQH
Lesson 2.2: Real Numbers	

Module 3

Expressions

Textbook section	IXL skills
Lesson 3.1: Evaluating Expressions	
Lesson 3.2: Simplifying Expressions	<ol style="list-style-type: none">1. Simplify variable expressions using properties HHR2. Simplify variable expressions involving like terms and the distributive property ZXX
Lesson 3.3: Writing Expressions	<ol style="list-style-type: none">1. Write variable expressions D7K

Module 4

Equations and Inequalities in One Variable

Textbook section

IXL skills

Lesson 4.1: Equations in One Variable

1. Write variable equations YVW
2. Solve two-step linear equations QAK
3. Solve advanced linear equations 28N
4. Solve equations with variables on both sides 7S7
5. Solve equations: complete the solution EVP
6. Solve linear equations: word problems UFG
7. Solve linear equations: mixed review DN6

Lesson 4.2: Inequalities in One Variable

1. Write inequalities from graphs SEK
2. Solve one-step linear inequalities EEX
3. Solve two-step linear inequalities NPZ
4. Solve advanced linear inequalities 9K8

Lesson 4.3: Solving for a Variable

1. Rearrange multi-variable equations WSJ

Module 5

Equations in Two Variables and Functions

Textbook section	IXL skills
Lesson 5.1: Equations in Two Variables	1. Interpret the graph of a function: word problems STU
Lesson 5.2: Representing Functions	1. Domain and range of relations 2CG 2. Evaluate a function R96 3. Complete a function table from an equation Z73 4. Complete a table and graph a linear function JFG
Lesson 5.3: Sequences	1. Evaluate variable expressions for number sequences PMN

Module 6

Linear Functions

Textbook section	IXL skills
Lesson 6.1: Linear Functions	1. Identify linear functions from graphs and equations VMQ
Lesson 6.2: Using Intercepts	1. Standard form: find x- and y-intercepts 8SN
Lesson 6.3: Using Slope	1. Find the slope of a graph E7D 2. Find the slope from two points MD5
Lesson 6.4: Slope-Intercept Form	1. Slope-intercept form: find the slope and y-intercept R5T 2. Slope-intercept form: graph an equation UWB 3. Slope-intercept form: write an equation from a graph 9GW 4. Slope-intercept form: write an equation from a word problem HWM
Lesson 6.5: Comparing Linear Functions	1. Compare linear functions: tables, graphs, and equations GD7
Lesson 6.6: Transforming Linear Functions	1. Transformations of linear functions C8G
Lesson 6.7: Writing Linear Functions	1. Slope-intercept form: write an equation from a table SSE 2. Slope-intercept form: write an equation from a word problem HWM 3. Write linear functions: word problems 9RQ

Module 7

Building Linear Functions

Textbook section	IXL skills
Lesson 7.1: Arithmetic Sequences	<ol style="list-style-type: none">1. Arithmetic sequences ALG2. Write variable expressions for arithmetic sequences 5VF
Lesson 7.2: Operations with Linear Functions	
Lesson 7.3: Linear Functions and Their Inverses	
Lesson 7.4: Linear Inequalities in Two Variables	<ol style="list-style-type: none">1. Graph a two-variable linear inequality HHP

Module 8

Modeling with Linear Functions

Textbook section	IXL skills
Lesson 8.1: Correlation	1. Match correlation coefficients to scatter plots FQ7
Lesson 8.2: Fitting Lines to Data	1. Interpret a scatter plot 8BS 2. Scatter plots: line of best fit Y2S
Lesson 8.3: Linear Regression	1. Find the equation of a regression line WJC 2. Interpret regression lines SEQ 3. Analyze a regression line of a data set 8D8

Module 9

Systems of Equations and Inequalities

Textbook section	IXL skills
Lesson 9.1: Solving Linear Systems by Graphing	<ol style="list-style-type: none">1. Solve a system of equations by graphing TSS2. Find the number of solutions to a system of equations by graphing HJW3. Classify a system of equations by graphing T2D
Lesson 9.2: Solving Linear Systems by Substitution	<ol style="list-style-type: none">1. Solve a system of equations using substitution 8P92. Solve a system of equations using substitution: word problems US9
Lesson 9.3: Solving Linear Systems by Adding or Subtracting	
Lesson 9.4: Solving Linear Systems by Multiplying	<ol style="list-style-type: none">1. Solve a system of equations using elimination A482. Solve a system of equations using elimination: word problems NHR
Lesson 9.5: Solving Systems of Linear Inequalities	<ol style="list-style-type: none">1. Solve systems of linear inequalities by graphing SGH

Module 10

Exponential Functions and Equations

Textbook section	IXL skills
Lesson 10.1: Exponential Functions	1. Evaluate an exponential function D6H
Lesson 10.2: Exponential Growth and Decay	1. Exponential growth and decay: word problems UKG
Lesson 10.3: Geometric Sequences	1. Geometric sequences HLJ 2. Write variable expressions for geometric sequences XPC
Lesson 10.4: Transforming Exponential Functions	1. Match exponential functions and graphs 72J
Lesson 10.5: Equations Involving Exponents	

Module 11

Modeling with Exponential Functions

Textbook section	IXL skills
Lesson 11.1: Exponential Regression	
Lesson 11.2: Comparing Linear and Exponential Models	

Module 12

Descriptive Statistics

Textbook section	IXL skills
Lesson 12.1: Two-Way Frequency Tables	
Lesson 12.2: Relative Frequency	

Module 13

Data Displays

Textbook section	IXL skills
Lesson 13.1: Measures of Center and Spread	<ol style="list-style-type: none">1. Mean, median, mode, and range MHB2. Calculate quartiles and interquartile range 8H9
Lesson 13.2: Data Distributions and Outliers	<ol style="list-style-type: none">1. Identify an outlier 87L2. Identify an outlier and describe the effect of removing it XGC
Lesson 13.3: Histograms	<ol style="list-style-type: none">1. Interpret bar graphs, line graphs, and histograms B9A2. Create bar graphs, line graphs, and histograms EF6
Lesson 13.4: Box Plots	<ol style="list-style-type: none">1. Box plots YE9
Lesson 13.5: Normal Distributions	

Module 14

Polynomials and Operations

Textbook section	IXL skills
Lesson 14.1: Understanding Polynomials	1. Polynomial vocabulary MTT
Lesson 14.2: Adding and Subtracting Polynomials	1. Add and subtract polynomials 5EK
Lesson 14.3: Multiplying Polynomials by Monomials	1. Multiply a polynomial by a monomial G2G
Lesson 14.4: Multiplying Polynomials	1. Multiply two polynomials using algebra tiles WR5 2. Multiply two binomials M7Q 3. Multiply two binomials: special cases 9JN 4. Multiply polynomials 58A

Module 15

Factoring Polynomials

Textbook section	IXL skills
Lesson 15.1: Factoring Polynomials	<ol style="list-style-type: none">1. Factor out a monomial JZL2. Factor by grouping HAA
Lesson 15.2: Factoring $x^2 + bx + c$	<ol style="list-style-type: none">1. Factor quadratics with leading coefficient 1 S9P
Lesson 15.3: Factoring $ax^2 + bx + c$	<ol style="list-style-type: none">1. Factor quadratics with other leading coefficients 7ED
Lesson 15.4: Factoring Special Products	<ol style="list-style-type: none">1. Factor quadratics: special cases 56E2. Factor quadratics UB5

Module 16

Solving Quadratic Equations

Textbook section	IXL skills
Lesson 16.1: Solve Quadratic Equations Using Square Roots	1. Solve a quadratic equation using square roots <small>ERF</small>
Lesson 16.2: Solve $x^2 + bx + c = 0$ by Factoring	1. Solve a quadratic equation using the zero product property <small>TNM</small>
Lesson 16.3: Solve $ax^2 + bx + c = 0$ by Factoring	1. Solve a quadratic equation by factoring <small>CSS</small>
Lesson 16.4: Solve $x^2 + bx + c = 0$ by Completing the Square	1. Complete the square <small>RD2</small>
Lesson 16.5: Solve $ax^2 + bx + c = 0$ by Completing the Square	1. Solve a quadratic equation by completing the square <small>XCL</small>
Lesson 16.6: The Quadratic Formula	1. Solve a quadratic equation using the quadratic formula <small>XCF</small> 2. Using the discriminant <small>SMF</small>

Module 17

Quadratic Functions

Textbook section

IXL skills

Lesson 17.1: Translating Quadratic Functions

Lesson 17.2: Stretching, Compressing, and Reflecting Quadratic Functions

Lesson 17.3: Combining Transformations of Quadratic Functions

1. Transformations of quadratic functions 6YS

Lesson 17.4: Characteristics of Quadratic Functions

1. Characteristics of quadratic functions: graphs HW8
2. Identify linear, quadratic, and exponential functions from graphs DHB

Lesson 17.5: Solving Quadratic Equations Graphically

Lesson 17.6: Solving Systems of Linear and Quadratic Equations

1. Systems of linear and quadratic equations 4U9

Lesson 17.7: Comparing Linear, Quadratic, and Exponential Models

Module 18

Piecewise and Absolute Value Functions

Textbook section	IXL skills
Lesson 18.1: Piecewise Functions	
Lesson 18.2: Absolute Value Functions	<ol style="list-style-type: none">1. Graph an absolute value function TD22. Domain and range of absolute value functions: graphs NV7
Lesson 18.3: Transforming Absolute Value Functions	<ol style="list-style-type: none">1. Transformations of absolute value functions 9TC
Lesson 18.4: Solving Absolute-Value Equations and Inequalities	<ol style="list-style-type: none">1. Write compound inequalities from graphs 6UV2. Solve absolute value equations 9LF3. Graph solutions to absolute value equations KXA4. Solve absolute value inequalities HXH5. Graph solutions to absolute value inequalities NE9

Module 19

Square Root and Cube Root Functions

Textbook section	IXL skills
Lesson 19.1: Square Root Functions	
Lesson 19.2: Transforming Square Root Functions	
Lesson 19.3: Cube Root Functions	
Lesson 19.4: Transforming Cube Root Functions	

Appendix

Appendix

Textbook section	IXL skills
Lesson A.1: The Pythagorean Theorem	1. Pythagorean theorem F55
Lesson A.2: Converse of the Pythagorean Theorem	1. Converse of the Pythagorean theorem NCK
Lesson A.3: Distance Between Two Points	