



IXL Skill Alignment

Course 3 alignment for Carnegie Learning Math Series



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Chapter 1

Textbook section	IXL skills
Lesson 1.1: Solving Problems Using Equations	1. Solve two-step equations JXD
Lesson 1.2: Equations with Infinite or No Solutions	1. Find the number of solutions XDE 2. Create equations with no solutions or infinitely many solutions 7TY
Lesson 1.3: Solving Linear Equations	1. Solve one-step and two-step equations: word problems HCP
Lesson 1.4: Solving More Linear Equations	1. Solve multi-step equations 55K 2. Solve equations involving like terms Q2B 3. Solve equations with variables on both sides ZYL 4. Solve equations: mixed review HZZ 5. Solve equations: complete the solution PGH

Chapter 2

Textbook section	IXL skills
Lesson 2.1: Developing Sequences of Numbers from Diagrams and Contexts	<ol style="list-style-type: none">1. Arithmetic sequences Y752. Geometric sequences EGQ3. Number sequences: word problems TD5
Lesson 2.2: Describing Characteristics of Graphs	
Lesson 2.3: Defining and Recognizing Functions	<ol style="list-style-type: none">1. Identify functions ELJ
Lesson 2.4: Linear Functions	<ol style="list-style-type: none">1. Identify independent and dependent variables FSF2. Complete a table for a linear function D9B
Lesson 2.5: Using Tables, Graphs, and Equations Part 1	<ol style="list-style-type: none">1. Write linear functions: word problems YK6
Lesson 2.6: Using Tables, Graphs, and Equations Part 2	<ol style="list-style-type: none">1. Evaluate a linear function: word problems DA6
Lesson 2.7: Introduction to Non-Linear Functions	<ol style="list-style-type: none">1. Evaluate a nonlinear function HK6

Chapter 3

Textbook section	IXL skills
Lesson 3.1: Determining Rate of Change from a Graph	1. Constant rate of change ZPF
Lesson 3.2: Determining Rate of Change from a Table	1. Find the constant of proportionality from a table ZCK 2. Rate of change: tables 6AV
Lesson 3.3: Determining Rate of Change from a Context	1. Unit rates 59J
Lesson 3.4: Determining Rate of Change from an Equation	1. Slope-intercept form: find the slope and y-intercept U55 2. Graph a line from an equation in slope-intercept form W5E
Lesson 3.5: Determining y-Intercepts from Various Representations	
Lesson 3.6: Determining the Rate of Change and y-Intercept	1. Graph a line from an equation in slope-intercept form W5E 2. Write a linear equation from a slope and a point VKP 3. Write a linear equation from two points 2R9 4. Graph a line from an equation in standard form 7MZ

Chapter 4

Textbook section	IXL skills
Lesson 4.1: Analyzing Problem Situations Using Multiple Representations	<ol style="list-style-type: none">1. Complete a table and graph a linear function DC22. Write a linear function from a table UYY
Lesson 4.2: Interpreting the Standard Form of a Linear Equation	<ol style="list-style-type: none">1. Write variable expressions: word problems MEC
Lesson 4.3: Connecting the Standard Form with the Slope-Intercept Form of Linear Functions	<ol style="list-style-type: none">1. Convert a linear equation in standard form to slope-intercept form NKM2. Graph a line from an equation in standard form 7MZ
Lesson 4.4: Intervals of Increase, Decrease, and No Change	<ol style="list-style-type: none">1. Graph proportional relationships and find the slope MQD2. Rate of change: tables 6AV
Lesson 4.5: Developing the Graph of a Piecewise Function	

Chapter 5

Textbook section	IXL skills
Lesson 5.1: Rational Numbers	<ol style="list-style-type: none">1. Add and subtract rational numbers Z682. Multiply and divide rational numbers 52P
Lesson 5.2: Irrational Numbers	<ol style="list-style-type: none">1. Identify rational and irrational numbers NV6
Lesson 5.3: Real Numbers and Their Properties	<ol style="list-style-type: none">1. Properties of addition and multiplication TYL

Chapter 6

Textbook section	IXL skills
Lesson 6.1: The Pythagorean Theorem	<ol style="list-style-type: none">1. Pythagorean theorem: find the length of the hypotenuse 7ZL2. Pythagorean theorem: find the missing leg length Y9C
Lesson 6.2: The Converse of the Pythagorean Theorem	<ol style="list-style-type: none">1. Pythagorean theorem: word problems 87U2. Converse of the Pythagorean theorem: is it a right triangle? EQZ
Lesson 6.3: Solving for Unknown Lengths	<ol style="list-style-type: none">1. Pythagorean theorem: find the length of the hypotenuse 7ZL2. Pythagorean theorem: find the missing leg length Y9C3. Pythagorean theorem: word problems 87U4. Converse of the Pythagorean theorem: is it a right triangle? EQZ
Lesson 6.4: The Distance Between Two Points in a Coordinate System	<ol style="list-style-type: none">1. Find the distance between two points ZBP
Lesson 6.5: Diagonals in Two Dimensions	
Lesson 6.6: Diagonals in Three Dimensions	

Chapter 7

Textbook section

IXL skills

Lesson 7.1: Translations Using Geometric Figures

1. Translations: graph the image XUS
2. Translations: find the coordinates RUP

Lesson 7.2: Translations of Linear Functions

Lesson 7.3: Rotations of Geometric Figures on the Coordinate Plane

Lesson 7.4: Reflections of Geometric Figures on the Coordinate Plane

1. Reflections: graph the image NBM
2. Reflections: find the coordinates KUX

Chapter 8

Textbook section	IXL skills
Lesson 8.1: Translations, Rotations, and Reflections of Triangles	<ol style="list-style-type: none">1. Translations: graph the image XUS2. Translations: find the coordinates RUP3. Reflections: graph the image NBM4. Reflections: find the coordinates KUX5. Rotations: graph the image AC96. Rotations: find the coordinates HHS
Lesson 8.2: Congruent Triangles	<ol style="list-style-type: none">1. Congruence statements and corresponding parts LPP
Lesson 8.3: SSS and SAS Congruence	<ol style="list-style-type: none">1. Congruent triangles: SSS, SAS, and ASA LWT
Lesson 8.4: ASA and AAS Congruence	<ol style="list-style-type: none">1. Congruent triangles: SSS, SAS, and ASA LWT

Chapter 9

Textbook section	IXL skills
Lesson 9.1: Dilations of Triangles	<ol style="list-style-type: none">1. Dilations: graph the image 9T42. Dilations: find the coordinates UV9
Lesson 9.2: Similar Triangles	<ol style="list-style-type: none">1. Side lengths and angle measures of similar figures 79Y
Lesson 9.3: AA, SAS, and SSS Similarity Theorems	
Lesson 9.4: Similar Triangles on the Coordinate Plane	

Chapter 10

Textbook section

IXL skills

Lesson 10.1: Line Relationships

Lesson 10.2: Angle Relationships Formed by Two Intersecting Lines

1. Identify complementary, supplementary, vertical, adjacent, and congruent angles HGV
2. Find measures of complementary, supplementary, vertical, and adjacent angles R2B

Lesson 10.3: Angle Relationships Formed by Two Lines Intersected by a Transversal

1. Transversals of parallel lines: find angle measures V99

Lesson 10.4: Slopes of Parallel and Perpendicular Lines

1. Slopes of parallel and perpendicular lines PRP

Lesson 10.5: Line Transformations

Chapter 11

Textbook section	IXL skills
Lesson 11.1: Using a Graph to Solve a Linear System	
Lesson 11.2: Graphs and Solutions of Linear Systems	<ol style="list-style-type: none">1. Solve a system of equations by graphing WV52. Solve a system of equations by graphing: word problems W9J
Lesson 11.3: Using Substitution to Solve a Linear System, Part 1	<ol style="list-style-type: none">1. Is (x, y) a solution to the system of equations? N462. Solve a system of equations using substitution J8X
Lesson 11.4: Using Substitution to Solve a Linear System, Part 2	<ol style="list-style-type: none">1. Solve a system of equations using substitution: word problems 9M8

Chapter 12

Textbook section

IXL skills

Lesson 12.1: Using Linear Combinations to Solve a Linear System

1. Solve a system of equations using elimination ZQV
2. Solve a system of equations using elimination: word problems Z97

Lesson 12.2: Solving More Systems

1. Solve a system of equations using substitution J8X
2. Solve a system of equations using substitution: word problems 9M8
3. Solve a system of equations using elimination ZQV
4. Solve a system of equations using elimination: word problems Z97

Lesson 12.3: Using the Best Method to Solve a Linear System

1. Solve a system of equations using any method: word problems GDQ

Lesson 12.4: Using a Graphing Calculator to Solve Linear Systems

Lesson 12.5: Using a Graphing Calculator to Analyze a System

Chapter 13

Textbook section	IXL skills
Lesson 13.1: Powers and Exponents	<ol style="list-style-type: none">1. Understanding exponents VFV2. Evaluate exponents EYR
Lesson 13.2: Multiplying and Dividing Powers	<ol style="list-style-type: none">1. Multiplication with exponents EQY2. Division with exponents M2C
Lesson 13.3: Zero and Negative Exponents	<ol style="list-style-type: none">1. Understanding negative exponents YBB2. Multiplication and division with exponents L2J3. Power rule AEQ
Lesson 13.4: Scientific Notation	<ol style="list-style-type: none">1. Convert between standard and scientific notation H8A
Lesson 13.5: Operations with Scientific Notation	<ol style="list-style-type: none">1. Multiply numbers written in scientific notation YZU2. Divide numbers written in scientific notation SGT
Lesson 13.6: Identify the Properties of Powers	<ol style="list-style-type: none">1. Evaluate expressions using properties of exponents UTY

Chapter 14

Textbook section	IXL skills
Lesson 14.1: Volume of a Cylinder	1. Volume of cylinders 9F3
Lesson 14.2: Volume of a Cone	1. Volume of cones Y9R
Lesson 14.3: Volume of a Sphere	1. Volume of spheres QX7
Lesson 14.4: Volume Problems	

Chapter 15

Textbook section

IXL skills

Lesson 15.1: Using Scatter Plots to Display and Analyze Two-Variable Relationships

Lesson 15.2: Interpreting Patterns in Scatter Plots

1. Identify trends with scatter plots GZE
2. Outliers in scatter plots RP8

Lesson 15.3: Connecting Tables and Scatter Plots for Collected Data

Chapter 16

Textbook section	IXL skills
Lesson 16.1: Drawing Lines of Best Fit	
Lesson 16.2: Analyzing the Line of Best Fit	1. Scatter plots: line of best fit ZQ6
Lesson 16.3: Performing an Experiment	1. Scatter plots: line of best fit ZQ6
Lesson 16.4: Using Technology to Determine a Linear Regression Equation	1. Find the equation of a regression line WJC
Lesson 16.5: Correlation	1. Identify trends with scatter plots GZE 2. Scatter plots: line of best fit ZQ6 3. Match correlation coefficients to scatter plots FQ7

Chapter 17

Textbook section

IXL skills

Lesson 17.1: Scatter Plots and Non-Linear Data

1. Scatter plots: line of best fit ZQ6

Lesson 17.2: Using Two-Way Tables to Display Two-Variable Data Sets

1. Create frequency charts LT2

Lesson 17.3: Using Bar Graphs to Display Frequencies and Relative Frequencies for Two-Variable Categorical Data