



IXL Skill Alignment

Course 2 alignment for Carnegie Learning Math Series



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Chapter 1

Ratios and Rates

Textbook section	IXL skills
Lesson 1.1: Introduction to Ratios and Rates	<ol style="list-style-type: none">1. Understanding ratios ZTC2. Identify equivalent ratios ZFM3. Write an equivalent ratio LQR4. Unit rates 2NB5. Unit prices N7G
Lesson 1.2: Ratios, Rates, and Mixture Problems	<ol style="list-style-type: none">1. Equivalent ratios: word problems DJ82. Word problems involving ratios JKY3. Do the ratios form a proportion? MJQ4. Do the ratios form a proportion: word problems SHV
Lesson 1.3: Rates and Proportions	<ol style="list-style-type: none">1. Unit prices with unit conversions KJ82. Compare and convert customary units 4B8
Lesson 1.4: Using Tables to Solve Problems	
Lesson 1.5: Using Proportions to Solve Problems	<ol style="list-style-type: none">1. Solve proportions TDA2. Solve proportions: word problems WB7
Lesson 1.6: Using Unit Rates in Real World Applications	<ol style="list-style-type: none">1. Unit prices: find the total price ENH

Chapter 2

Proportional Reasoning

Textbook section	IXL skills
Lesson 2.1: Introduction to Direct Variation	
Lesson 2.2: Determining Equivalent Ratios	1. Find the constant of proportionality from a table LKZ
Lesson 2.3: Determining and Applying the Constant of Proportionality	1. Write equations for proportional relationships from tables 6GU
Lesson 2.4: Using the Constant of Proportionality to Solve Proportions	
Lesson 2.5: Graphing Direct Proportions	1. Identify proportional relationships by graphing AAN 2. Find the constant of proportionality from a graph ZUT 3. Write equations for proportional relationships from graphs JKH 4. Interpret graphs of proportional relationships RMH
Lesson 2.6: Using Direct Proportions	1. Write and solve equations for proportional relationships VKK
Lesson 2.7: Interpreting Multiple Representations of Direct Proportions	1. Identify proportional relationships from graphs and equations NB5

Chapter 3

Percents

Textbook section

IXL skills

Lesson 3.1: Estimating and Calculating with Percents and Rates

1. Estimate percents of numbers 29D
2. Percents of numbers and money amounts 93K
3. Percents of numbers: word problems EXE
4. Percent of a number: tax, discount, and more SPN

Lesson 3.2: Solving Percent Problems

1. Solve percent equations 67F
2. Solve percent equations: word problems JS6
3. Find the percent: tax, discount, and more PBM
4. Sale prices: find the original price BDA
5. Multi-step problems with percents ZHX

Lesson 3.3: Using Proportions and Percent Equations

1. Solve percent equations 67F
2. Solve percent equations: word problems JS6

Lesson 3.4: Using Percents

1. Percent of change BL7
2. Percent of change: word problems 54S
3. Simple interest E7Y

Lesson 3.5: Solving Percent Problems Involving Proportions

Chapter 4

Addition and Subtraction with Rational Numbers

Textbook section	IXL skills
Lesson 4.1: Using Models to Understand Integers	1. Understanding integers YBC
Lesson 4.2: Adding Integers, Part 1	1. Absolute value and opposite integers NSB
Lesson 4.3: Adding Integers, Part 2	
Lesson 4.4: Subtracting Integers	1. Integer addition and subtraction rules 6EV 2. Add and subtract integers using counters B8X 3. Add and subtract integers FNS 4. Complete addition and subtraction equations with integers P6A
Lesson 4.5: Adding and Subtracting Rational Numbers	1. Add and subtract decimals BP2 2. Add and subtract fractions NGL 3. Add and subtract mixed numbers 9BE 4. Add and subtract rational numbers GKU

Chapter 5

Multiplication and Division with Rational Numbers

Textbook section	IXL skills
Lesson 5.1: Multiplying and Dividing Integers	<ol style="list-style-type: none">1. Integer multiplication and division rules 5R82. Multiply and divide integers R8D3. Complete multiplication and division equations with integers K94
Lesson 5.2: Multiplying and Dividing Rational Numbers	<ol style="list-style-type: none">1. Multiply decimals TCU2. Divide decimals 6HB3. Multiply fractions PDK4. Multiply mixed numbers JNY5. Divide fractions X7A6. Divide mixed numbers UPF7. Multiply and divide rational numbers BXW
Lesson 5.3: Simplifying Arithmetic Expressions with Rational Numbers	<ol style="list-style-type: none">1. Evaluate numerical expressions involving integers 7YN2. Evaluate numerical expressions involving decimals FNM3. Evaluate numerical expressions involving fractions XXQ
Lesson 5.4: Evaluating Expressions with Rational Numbers	<ol style="list-style-type: none">1. Add and subtract integers: word problems 2DD2. Add, subtract, multiply, and divide decimals: word problems TGN3. Add, subtract, multiply, and divide fractions and mixed numbers: word problems KR7
Lesson 5.5: Exact Decimal Representations of Fractions	<ol style="list-style-type: none">1. Convert between decimals and fractions or mixed numbers 8XE

Chapter 6

Numerical and Algebraic Expressions and Equations

Textbook section	IXL skills
Lesson 6.1: Evaluating Algebraic Expressions	<ol style="list-style-type: none">1. Write variable expressions: two or three operations EGS2. Write variable expressions: word problems XMD3. Evaluate linear expressions UG6
Lesson 6.2: Simplifying Expressions Using Distributive Properties	<ol style="list-style-type: none">1. Multiply using the distributive property NUY
Lesson 6.3: Factoring Algebraic Expressions	<ol style="list-style-type: none">1. Sort factors of variable expressions BUX2. Solve equations using properties XSC3. Add and subtract linear expressions 6BT4. Add and subtract like terms: with exponents EQA5. Factors of linear expressions J9G
Lesson 6.4: Verifying That Expressions Are Equivalent	<ol style="list-style-type: none">1. Identify equivalent linear expressions II KAR
Lesson 6.5: Simplifying Algebraic Expressions Using Operations and Their Properties	<ol style="list-style-type: none">1. Properties of addition and multiplication D6G2. Write equivalent expressions using properties 6XR

Chapter 7

Solving Linear Equations and Inequalities

Textbook section	IXL skills
Lesson 7.1: Picture Algebra	<ol style="list-style-type: none">1. Write an equation from words N2T2. Model and solve equations using algebra tiles EGK
Lesson 7.2: Solving Equations	
Lesson 7.3: Solving Two-Step Equations	<ol style="list-style-type: none">1. Solve two-step equations QEB2. Solve equations: word problems D2Y3. Solve equations involving like terms VSW
Lesson 7.4: Using Two-Step Equations	<ol style="list-style-type: none">1. Solve equations: complete the solution 66R
Lesson 7.5: Solving and Graphing Inequalities in One Variable	<ol style="list-style-type: none">1. Solutions to inequalities 8BA2. Solve one-step inequalities QWH3. Graph solutions to one-step inequalities TFK4. Solve two-step inequalities XGQ5. Graph solutions to two-step inequalities 6TT

Chapter 8

The Power of Algebraic Thinking

Textbook section	IXL skills
Lesson 8.1: Multiple Representations of Problem Situations	
Lesson 8.2: Using Two-Step Equations	1. Write a two-variable equation 94Q
Lesson 8.3: Solving More Complicated Equations	1. Multiplicative inverses GQG
Lesson 8.4: Making Sense of Negative Solutions	1. Find a value using two-variable equations KSY 2. Solve word problems involving two-variable equations YJT
Lesson 8.5: Rate of Change	1. Complete a table for a two-variable relationship 2LU
Lesson 8.6: Using Multiple Representations to Solve Problems	1. Identify independent and dependent variables LK9 2. Identify the graph of an equation WU5 3. Write an equation from a graph using a table MXS

Chapter 9

Angles

Textbook section	IXL skills
Lesson 9.1: Introduction to Geometry and Geometric Constructions	1. Parts of a circle 2VL
Lesson 9.2: Measuring and Constructing Angles	1. Name, measure, and classify angles 2UG 2. Lines, line segments, and rays JPE
Lesson 9.3: Complements, Supplements, Midpoints, Perpendiculars, and Perpendicular Bisectors	1. Identify complementary, supplementary, vertical, and adjacent angles HKG 2. Find measures of complementary, supplementary, vertical, and adjacent angles CST

Chapter 10

Triangles

Textbook section	IXL skills
Lesson 10.1: Triangle Sum, Exterior Angle, and Exterior Angle Inequality Theorems	1. Find missing angles in triangles 4U6
Lesson 10.2: Constructing Triangles	
Lesson 10.3: Congruent Figures and Constructing Congruent Triangles	
Lesson 10.4: Triangle Inequality Theorem	

Chapter 11

Scale Drawings and Scale Factor

Textbook section	IXL skills
Lesson 11.1: Scale Drawings, Scale Models, and Scale Factors	
Lesson 11.2: Applications of Ratio	
Lesson 11.3: Exploring Scale Drawings	1. Scale drawings: word problems 84H
Lesson 11.4: Creating Blueprints	1. Front, side, and top view 9Q3

Chapter 12

Circles

Textbook section	IXL skills
Lesson 12.1: Circle, Radius, and Diameter	1. Parts of a circle 2VL
Lesson 12.2: Circumference of a Circle	1. Circumference of circles KS7
Lesson 12.3: Area of a Circle	1. Area of circles YA8
Lesson 12.4: Unknown Measurements	1. Circles: word problems P56 2. Area between two shapes RKC

Chapter 13

Three-Dimensional Figures

Textbook section

IXL skills

Lesson 13.1: Slicing Through a Cube

Lesson 13.2: Slicing Through Right Rectangular Prisms

Lesson 13.3: Slicing Through Right Rectangular Pyramids

1. Cross sections of three-dimensional figures HFJ

Lesson 13.4: Introduction to Volume and Surface Area

Lesson 13.5: Applying Volume and Surface Area Formulas

1. Volume of cubes and prisms URT
2. Surface area of cubes and prisms RFP

Chapter 14

Gathering Data and Randomization

Textbook section	IXL skills
Lesson 14.1: Formulating Questions and Collecting Data	
Lesson 14.2: Collecting Data through Random Sampling	1. Identify representative, random, and biased samples 5V3
Lesson 14.3: Random Sampling	
Lesson 14.4: Using Samples, Centers, and Spreads to Describe Data	1. Calculate mean, median, mode, and range U2A 2. Interpret charts and graphs to find mean, median, mode, and range CYK 3. Mean, median, mode, and range: find the missing number ZWS 4. Changes in mean, median, mode, and range 9UP 5. Calculate mean absolute deviation YNM
Lesson 14.5: Using Sample Size	

Chapter 15

Comparing Inferences about Population

Textbook section	IXL skills
Lesson 15.1: Comparing Measures of Center of Two Populations	1. Interpret stem-and-leaf plots BCT
Lesson 15.2: Comparing Measures of Center of Two Populations	1. Create line plots 22B
Lesson 15.3: Drawing Conclusions about Two Populations	1. Box plots SKN

Chapter 16

Introduction to Probability

Textbook section	IXL skills
Lesson 16.1: Defining and Representing Probability	1. Probability of simple events ZZB
Lesson 16.2: Determining Experimental Probability	1. Experimental probability 9AA
Lesson 16.3: Determining Theoretical Probability	1. Make predictions using theoretical probability 9UW
Lesson 16.4: Simulating Experiments	
Lesson 16.5: Using Technology for Simulations	

Chapter 17

Probability of Compound Events

Textbook section

IXL skills

Lesson 17.1: Using Models for Probability

1. Probability of simple events and opposite events F88

Lesson 17.2: Creating and Using Probability Models

Lesson 17.3: Determining Compound Probability

1. Compound events: find the number of outcomes HZR
2. Identify independent and dependent events 9M6
3. Probability of independent and dependent events NED

Lesson 17.4: Simulating Probability of Compound Events