



IXL Skill Alignment

7th grade alignment for Glencoe Math



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Chapter 1

Ratios and Proportional Reasoning

Textbook section	IXL skills
Lesson 1: Rates	<ol style="list-style-type: none">1. Unit rates 2NB2. Unit prices N7G3. Compare rates: word problems VVS <p><i>Also consider</i></p> <ul style="list-style-type: none">• Identify equivalent ratios ZFM• Write an equivalent ratio LQR• Equivalent ratios: word problems DJ8
Lesson 2: Complex Fractions and Unit Rates	<ol style="list-style-type: none">1. Calculate unit rates with fractions 57X2. Simplify complex fractions E9H <p><i>Also consider</i></p> <ul style="list-style-type: none">• Convert between percents and fractions AUT
Lesson 3: Convert Unit Rates	<ol style="list-style-type: none">1. Convert rates and measurements: customary units 5F42. Convert rates and measurements: metric units QKM
Lesson 4: Proportional and Nonproportional Relationships	<ol style="list-style-type: none">1. Find the constant of proportionality from a table LKZ2. Identify proportional relationships from tables 6V73. Write equations for proportional relationships from tables 6GU
Lesson 5: Graph Proportional Relationships	<ol style="list-style-type: none">1. Identify proportional relationships from graphs and equations NB52. Identify proportional relationships by graphing AAN3. Complete a table and graph a proportional relationship 5DR <p><i>Also consider</i></p> <ul style="list-style-type: none">• Coordinate plane review VXU

- Interpret graphs of proportional relationships RMH
- Find the constant of proportionality from a graph ZUT
- Write equations for proportional relationships from graphs JKH

Lesson 6: Solve Proportional Relationships

1. Solve proportions TDA
2. Solve proportions: word problems WB7

Also consider

- Do the ratios form a proportion: word problems SHV
- Write and solve equations for proportional relationships VKK

Lesson 7: Constant Rate of Change

1. Constant rate of change: graphs TWW

Also consider

- Rate of change: tables 4Q5
- Rate of change: graphs YER

Lesson 8: Slope

1. Graph proportional relationships and find the slope GYL

Also consider

- Graph a proportional relationship: word problems FJW

Lesson 9: Direct Variation

1. Find the constant of variation SSD
2. Identify direct variation DSX
3. Write and solve direct variation equations LSZ

Chapter 2

Percents

Textbook section	IXL skills
Lesson 1: Percent of a Number	1. Percents of numbers and money amounts 93K 2. Percents of numbers: word problems EXE <i>Also consider</i> <ul style="list-style-type: none"> Solve percent problems using strip models 9XC
Lesson 2: Percent and Estimation	1. Estimate percents of numbers 29D <i>Also consider</i> <ul style="list-style-type: none"> Estimate tips Y5R
Lesson 3: The Percent Proportion	1. Solve percent equations 67F
Lesson 4: The Percent Equation	1. Solve percent equations: word problems JS6
Lesson 5: Percent of Change	1. Percent of change BL7 2. Percent of change: word problems 54S 3. Percent error: word problems X9B
Lesson 6: Sales Tax, Tips, and Markup	1. Tax, tip, and markup: word problems NK7
Lesson 7: Discount	1. Sale prices RH9 2. Sale prices: find the original price BDA 3. Which is the better coupon? QT6 <i>Also consider</i> <ul style="list-style-type: none"> Find the percent: tax, discount, and more PBM Multi-step problems with percents ZHX
Lesson 8: Financial Literacy: Simple Interest	1. Simple interest E7Y

Chapter 3

Integers

Textbook section

IXL skills

Lesson 1: Integers and Absolute Value

1. Understanding integers YBC
2. Graph integers on horizontal and vertical number lines EM8
3. Absolute value and opposite integers NSB

Also consider

- Integers on number lines A5Y
- Compare and order integers JX8
- Understanding absolute value 6PJ

Lesson 2: Add Integers

1. Add integers using number lines A63
2. Integer addition rules ERH
3. Add integers QFU

Also consider

- Add integers using counters FTM
- Add three or more integers PBC
- Quantities that combine to zero: word problems 7SP

Lesson 3: Subtract Integers

1. Subtract integers using number lines FGG
2. Integer subtraction rules QZA
3. Subtract integers HEU

Also consider

- Subtract integers using counters BGL
- Add and subtract integers FNS
- Add and subtract integers: word problems 2DD

Lesson 4: Multiply Integers

1. Understand multiplying by a negative integer using a number line NB8
2. Integer multiplication rules K7U
3. Multiply integers DQT

Lesson 5: Divide Integers

1. Equal quotients of integers 2QY
2. Integer division rules T9Q
3. Divide integers CTV

Also consider

- Add, subtract, multiply, and divide integers B8A
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Chapter 4

Rational Numbers

Textbook section	IXL skills
Lesson 1: Terminating and Repeating Decimals	<ol style="list-style-type: none"> Convert fractions or mixed numbers to decimals M2D
Lesson 2: Compare and Order Rational Numbers	<ol style="list-style-type: none"> Rational numbers on number lines HA9 Compare and order rational numbers using number lines 4D5 Compare rational numbers JVR Put rational numbers in order 28Y <p><i>Also consider</i></p> <ul style="list-style-type: none"> Classify rational numbers using a diagram 6KA Classify rational numbers LCS Convert between percents, fractions, and decimals 2HW
Lesson 3: Add and Subtract Like Fractions	<ol style="list-style-type: none"> Add and subtract positive and negative like fractions KHV
Lesson 4: Add and Subtract Unlike Fractions	<ol style="list-style-type: none"> Add and subtract positive and negative unlike fractions DFB <p><i>Also consider</i></p> <ul style="list-style-type: none"> Add and subtract rational numbers GKU
Lesson 5: Add and Subtract Mixed Numbers	<ol style="list-style-type: none"> Convert between mixed numbers and improper fractions LGK Add and subtract mixed numbers 9BE Add and subtract mixed numbers: word problems 6YT
Lesson 6: Multiply Fractions	<ol style="list-style-type: none"> Multiply positive and negative fractions K6H Multiply fractions and mixed numbers: word problems 5NJ
Lesson 7: Convert Between Systems	<ol style="list-style-type: none"> Convert between customary and metric systems E8Z

Lesson 8: Divide Fractions

1. Divide positive and negative fractions 92N
2. Divide fractions and mixed numbers: word problems 5VR

Also consider

- Multiplicative inverses GQG
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Chapter 5

Expressions

Textbook section

IXL skills

Lesson 1: Algebraic Expressions

1. Write variable expressions: word problems XMD
2. Evaluate variable expressions LKM
3. Evaluate nonlinear expressions ZHY

Also consider

- Write variable expressions N48

Lesson 2: Sequences

1. Arithmetic sequences CYC
2. Evaluate variable expressions for arithmetic sequences JZ8
3. Write variable expressions for arithmetic sequences AJD

Also consider

- Shape patterns JUD

Lesson 3: Properties of Operations

1. Properties of addition and multiplication MUV
2. Simplify expressions using properties AH7

Lesson 4: The Distributive Property

1. Multiply using the distributive property: area models J8K
2. Multiply using the distributive property NUY
3. Write equivalent expressions using properties 6XR

Also consider

- Identify equivalent linear expressions using algebra tiles 38V

Lesson 5: Simplify Algebraic Expressions

1. Identify terms and coefficients E7H
2. Simplify expressions by combining like terms: with algebra tiles PCU
3. Simplify expressions by combining like terms JJG

Also consider

- Identify equivalent linear expressions I DRB
- Identify equivalent linear expressions II KAR
- Identify equivalent linear expressions: word problems KWH

Lesson 6: Add Linear Expressions

1. Add expressions RPY
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Lesson 7: Subtract Linear Expressions

1. Subtract expressions KCX
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Lesson 8: Factor Linear Expressions

1. Factor linear expressions: area models QRL
2. Factors of linear expressions J9G

Also consider

- Sort factors of variable expressions BUX
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Chapter 6

Equations and Inequalities

Textbook section	IXL skills
Lesson 1: Solve One-Step Addition and Subtraction Equations	<ol style="list-style-type: none"> Solve one-step addition and subtraction equations VLA Solve one-step addition and subtraction equations with decimals, fractions, and mixed numbers DMB
Lesson 2: Multiplication and Division Equations	<ol style="list-style-type: none"> Solve one-step multiplication and division equations LST <p><i>Also consider</i></p> <ul style="list-style-type: none"> Solve one-step equations WKM Solve one-step equations: word problems PTR
Lesson 3: Solve Equations with Rational Coefficients	<ol style="list-style-type: none"> Solve one-step multiplication and division equations with decimals, fractions, and whole numbers EEC
Lesson 4: Solve Two-Step Equations	<ol style="list-style-type: none"> Model and solve equations using algebra tiles EGK Write and solve equations that represent diagrams FVH Solve two-step equations without parentheses CMX
Lesson 5: More Two-Step Equations	<ol style="list-style-type: none"> Solve two-step equations with parentheses NSH Solve equations: complete the solution 66R Solve two-step equations: word problems D2Y <p><i>Also consider</i></p> <ul style="list-style-type: none"> Solve two-step equations QEB Solve two-step equations with fractions 53A
Lesson 6: Solve Inequalities by Addition or Subtraction	<ol style="list-style-type: none"> Solve one-step addition and subtraction inequalities XPQ <p><i>Also consider</i></p> <ul style="list-style-type: none"> Solutions to inequalities 8BA

- Graph inequalities on number lines VLU
- Write inequalities from number lines JNL

Lesson 7: Solve Inequalities by Multiplication or Division

1. Solve one-step multiplication and division inequalities 2YB
2. Graph solutions to one-step inequalities TFK
3. One-step inequalities: word problems 6HD

Lesson 8: Solve Two-Step Inequalities

1. Solve two-step inequalities XGQ
2. Graph solutions to two-step inequalities 6TT

Chapter 7

Geometric Figures

Textbook section	IXL skills
Lesson 1: Classify Angles	<ol style="list-style-type: none">1. Name, measure, and classify angles 2UG2. Identify vertical, adjacent, and congruent angles BCU3. Find measures of vertical and adjacent angles 2F6
Lesson 2: Complementary and Supplementary Angles	<ol style="list-style-type: none">1. Identify complementary and supplementary angles XA62. Find measures of complementary and supplementary angles JL9 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Write and solve equations using angle relationships DN9
Lesson 3: Triangles	<ol style="list-style-type: none">1. Classify triangles N5Z2. Find missing angles in triangles 4U6 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Triangle inequality 5RX
Lesson 4: Scale Drawings	<ol style="list-style-type: none">1. Scale drawings: word problems 84H2. Scale drawings: scale factor word problems KCM <p><i>Also consider</i></p> <ul style="list-style-type: none">• Scale drawings of polygons WEA
Lesson 5: Draw Three-Dimensional Figures	<ol style="list-style-type: none">1. Front, side, and top view 9Q3
Lesson 6: Cross Sections	<ol style="list-style-type: none">1. Bases of three-dimensional figures RF62. Identify parallel, intersecting, and skew lines and planes WSU3. Cross sections of three-dimensional figures HFJ

Chapter 8

Measure Figures

Textbook section	IXL skills
Lesson 1: Circumference	1. Circumference of circles 9FM <i>Also consider</i> <ul style="list-style-type: none"> Parts of a circle 2VL
Lesson 2: Area of Circles	1. Area of circles YA8 2. Circles: word problems P56 <i>Also consider</i> <ul style="list-style-type: none"> Area of semicircles and quarter circles 2NM
Lesson 3: Area of Composite Figures	1. Area of compound figures with triangles, semicircles, and quarter circles N97 2. Area between two shapes RKC
Lesson 4: Volume of Prisms	1. Volume of cubes and prisms URT
Lesson 5: Volume of Pyramids	1. Volume of pyramids CKU
Lesson 6: Surface Area of Prisms	1. Surface area of cubes and prisms RFP <i>Also consider</i> <ul style="list-style-type: none"> Nets of prisms and pyramids GFP
Lesson 7: Surface Area of Pyramids	1. Surface area of pyramids XSJ
Lesson 8: Volume and Surface Area of Composite Figures	1. Volume of prisms: advanced EP5 <i>Also consider</i> <ul style="list-style-type: none"> Volume of irregular figures made of unit cubes 7CP Volume of compound figures 89U

Chapter 9

Probability

Textbook section	IXL skills
Lesson 1: Probability of Simple Events	<ol style="list-style-type: none"> Probability of simple, opposite, and mutually exclusive events 8SW Probability of simple events: word problems NNM
Lesson 2: Theoretical and Experimental Probability	<ol style="list-style-type: none"> Experimental probability 9AA Make predictions using experimental probability WP6 <p><i>Also consider</i></p> <ul style="list-style-type: none"> Use collected data to find probabilities and make predictions VST Make predictions using theoretical probability 9UW
Lesson 3: Probability of Compound Events	<ol style="list-style-type: none"> Probability of compound events YPQ
Lesson 4: Simulations	<ol style="list-style-type: none"> Sample spaces for compound events 8HY Which simulation represents the situation? D87
Lesson 5: Fundamental Counting Principle	<ol style="list-style-type: none"> Compound events: find the number of outcomes HZR Find the number of outcomes: word problems EKX
Lesson 6: Permutations	<ol style="list-style-type: none"> Permutations 7UB
Lesson 7: Independent and Dependent Events	<ol style="list-style-type: none"> Identify independent and dependent events 9M6 Probability of independent and dependent events NED

Chapter 10

Statistics

Textbook section	IXL skills
Lesson 1: Make Predictions	<ol style="list-style-type: none">1. Populations and samples YHZ2. Make an estimate from sample data FMC <p><i>Also consider</i></p> <ul style="list-style-type: none">• Estimate population size using proportions 3C9
Lesson 2: Unbiased and Biased Samples	<ol style="list-style-type: none">1. Identify representative, random, and biased samples 5V32. Make inferences from multiple samples 2BM
Lesson 3: Misleading Graphs and Statistics	<ol style="list-style-type: none">1. Interpret charts and graphs to find mean, median, mode, and range CYK2. Interpret mean and mean absolute deviation UKJ
Lesson 4: Compare Populations	<ol style="list-style-type: none">1. Compare populations using measures of center and spread PCK <p><i>Also consider</i></p> <ul style="list-style-type: none">• Interpret line plots W92• Box plots SKN
Lesson 5: Select and Appropriate Display	<ol style="list-style-type: none">1. Choose the best type of graph RMW