IXL Skill Alignment

8th grade alignment for Glencoe Math Common Core Edition

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Chapter 1

Real Numbers

Textbook section	IXL skills
Lesson 1: Rational Numbers	1. Convert between decimals and fractions or mixed numbers 2RC
Lesson 2: Powers and Exponents	1. Understanding exponents VFV 2. Evaluate exponents EYR 3. Exponents with negative bases ZQC 4. Exponents with decimal and fractional bases 8CT
Lesson 3: Multiply and Divide Monomials	1. Multiplication with exponents EQY 2. Division with exponents M2C 3. Multiplication and division with exponents L2J 4. Multiply monomials TR9 5. Divide monomials DLA 6. Multiply and divide monomials 85P
Lesson 4: Powers of Monomials	1. Power rule AEQ 2. Powers of monomials 2CU
Lesson 5: Negative Exponents	1. Understanding negative exponents YBB 2. Evaluate negative exponents WGS
Lesson 6: Scientific Notation	1. Convert between standard and scientific notation H8A
Lesson 7: Compute with Scientific Notation	1. Multiply numbers written in scientific notation YZU 2. Divide numbers written in scientific notation SGT
Lesson 8: Roots	1. Square roots of perfect squares 9RS 2. Positive and negative square roots 8TF 3. Solve equations using square roots NNA 4. Cube roots of positive perfect cubes RYG

	5. Solve equations using cube roots TQ5
Lesson 9: Estimate Roots	1. Estimate positive and negative square roots 96T 2. Estimate cube roots RLC
Lesson 10: Compare Real Numbers	1. Identify rational and irrational numbers NV6 2. Compare rational numbers MUK 3. Put rational numbers in order QP5
Checkpoint opportunity	1. Checkpoint: Rational and irrational numbers SNE 2. Checkpoint: Approximate irrational numbers JHR 3. Checkpoint: Integer exponents GEJ 4. Checkpoint: Square and cube roots UF5 5. Checkpoint: Scientific notation D2U

Chapter 2

Equations in One Variable

Textbook section	IXL skills
Lesson 1: Solve Equations with Rational Coefficients	1. Reciprocals and multiplicative inverses 8MF
Lesson 2: Solve Two-Step Equations	1. Model and solve equations using algebra tiles D45 2. Properties of equality 7WL 3. Solve one-step equations 5J4 4. Solve two-step equations JXD
Lesson 3: Write Two-Step Equations	1. Write an equation from words F6R 2. Write and solve equations that represent diagrams G6N 3. Solve one-step and two-step equations: word problems HCP
Lesson 4: Solve Equations with Variables on Each Side	1. Solve equations with variables on both sides ZYL
Lesson 5: Solve Multi-Step Equations	1. Solve multi-step equations 55K 2. Solve equations involving like terms Q2B 3. Solve equations: mixed review HZZ 4. Solve equations: complete the solution PGH
Checkpoint opportunity	1. Checkpoint: Solve linear equations BBZ

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Chapter 3

Equations in Two Variables

Textbook section	IXL skills
Lesson 1: Constant Rate of Change	1. Find the constant of proportionality from a table ZCK 2. Identify proportional relationships by graphing RXD 3. Find the constant of proportionality from a graph YMH 4. Constant rate of change ZPF
Lesson 2: Slope	1. Find the slope of a graph D7M 2. Find the slope from two points ZAC
Lesson 3: Equations in y-mx Form	1. Write equations for proportional relationships from tables S69 2. Write equations for proportional relationships from graphs G7N 3. Graph proportional relationships and find the slope MQD 4. Write and solve equations for proportional relationships HPM
Lesson 4: Slope-Intercept Form	1. Graph a line using slope FSV 2. Graph a line from an equation in slope-intercept form W5E 3. Write a linear equation from a slope and y-intercept WHP 4. Write a linear equation from a graph WHM
Lesson 5: Graph a Line Using Intercepts	1. Graph a line from an equation in standard form 7MZ
Lesson 6: Write Linear Equations	1. Write a linear equation from a slope and a point VKP 2. Write a linear equation from two points 2R9

Lesson 7: Solve Systems of Equations by Graphing	1. Solve a system of equations by graphing WV5 2. Solve a system of equations by graphing: word problems W9J 3. Find the number of solutions to a system of equations by graphing AGZ
Lesson 8: Solve Systems of Equations Algebraically	1. Solve a system of equations using substitution J8X 2. Solve a system of equations using substitution: word problems 9M8
Checkpoint opportunity	1. Checkpoint: Slope and linear equations S7V 2. Checkpoint: Systems of equations MFL 3. Checkpoint: Proportional relationships 58H

Chapter 4
Functions

Textbook section	IXL skills
Lesson 1: Representing Relationships	
Lesson 2: Relations	1. Find values using function graphs 7N2 2. Complete a table for a function graph 7EK
Lesson 3: Functions	1. Identify functions ELJ 2. Identify independent and dependent variables FSF 3. Evaluate a linear function LNV
Lesson 4: Linear Functions	1. Complete a table for a linear function D9B 2. Complete a table and graph a linear function DC2 3. Interpret points on the graph of a linear function 9E8
Lesson 5: Compare Properties of Functions	1. Compare linear functions: tables, graphs, and equations N7D
Lesson 6: Construct Functions	1. Write a linear function from a table UYY 2. Write linear functions: word problems YK6
Lesson 7: Linear and Nonlinear Functions	1. Identify linear and nonlinear functions: graphs and equations XB8
Lesson 8: Quadratic Functions	
Lesson 9: Qualitative Graphs	
Checkpoint opportunity	1. Checkpoint: Understand functions 6NP 2. Checkpoint: Compare functions XQJ 3. Checkpoint: Linear and nonlinear functions JKA 4. Checkpoint: Sketch and describe graphs K7A 5. Checkpoint: Construct and interpret linear functions 3K7

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Chapter 5

Triangles and the Pythagorean Theorem

Textbook section	IXL skills
Lesson 1: Lines	1. Identify complementary, supplementary, vertical, adjacent, and congruent angles HGV 2. Find measures of complementary, supplementary, vertical, and adjacent angles R2B 3. Transversals of parallel lines: find angle measures V99
Lesson 2: Geometric Proof	
Lesson 3: Angles of Triangles	1. Find missing angles in triangles JFJ 2. Exterior Angle Theorem FMP
Lesson 4: Polygons and Angles	1. Find missing angles in quadrilaterals I N2R 2. Interior angles of polygons JBP
Lesson 5: The Pythagorean Theorem	1. Pythagorean theorem: find the length of the hypotenuse 7ZL 2. Pythagorean theorem: find the missing leg length Y9C 3. Converse of the Pythagorean theorem: is it a right triangle? EQZ
Lesson 6: Use the Pythagorean Theorem	1. Pythagorean theorem: find the perimeter VGE 2. Pythagorean theorem: word problems 87U
Lesson 7: Distance on the Coordinate Plane	1. Find the distance between two points ZBP
Checkpoint opportunity	1. Checkpoint: Triangles and transversals EPV 2. Checkpoint: Pythagorean theorem and its converse 6GQ 3. Checkpoint: Applications of the Pythagorean theorem QWT

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Chapter 6
Transformations

Textbook section	IXL skills
Lesson 1: Translations	1. Translations: graph the image XUS 2. Translations: find the coordinates RUP
Lesson 2: Reflections	1. Reflections: graph the image NBM 2. Reflections: find the coordinates KUX
Lesson 3: Rotations	1. Identify reflections, rotations, and translations UYL 2. Rotations: graph the image AC9 3. Rotations: find the coordinates HHS
Lesson 4: Dilations	1. Dilations: graph the image 9T4 2. Dilations: find the coordinates UV9 3. Dilations: scale factor and classification 8NK
Checkpoint opportunity	1. Checkpoint: Transformations on the coordinate plane WPB

Chapter 7

Congruence and Similarity

Textbook section	IXL skills
Lesson 1: Congruence and Transformations	
Lesson 2: Congruence	1. Congruence statements and corresponding parts LPP 2. Side lengths and angle measures of congruent figures DSQ
Lesson 3: Similarity and Transformations	
Lesson 4: Properties of Similar Polygons	1. Similar and congruent figures U85 2. Side lengths and angle measures of similar figures 79Y
Lesson 5: Similar Triangles and Indirect Measurement	
Lesson 6: Slope and Similar Triangles	
Lesson 7: Area and Perimeter of Similar Figures	
Checkpoint opportunity	1. Checkpoint: Congruence transformations CCR 2. Checkpoint: Similarity transformations DYW

Chapter 8

Volume and Surface Area

Textbook section	IXL skills
Lesson 1: Volume of Cylinders	1. Volume of cylinders 9F3
Lesson 2: Volume of Cones	1. Volume of cones YYR
Lesson 3: Volume of Spheres	1. Volume of spheres QX7
Lesson 4: Surface Area of Cylinders	1. Surface area of cylinders FGU
Lesson 5: Surface Area of Cones	1. Surface area of cones 5E6
Lesson 6: Changes in Dimension	1. Volume and surface area of similar solids 8TT
Checkpoint opportunity	1. Checkpoint: Volume 9GB

Chapter 9

Statistics and Probability

Textbook section	IXL skills
Lesson 1: Scatter Plots	1. Identify trends with scatter plots GZE 2. Outliers in scatter plots RP8
Lesson 2: Lines of Best Fit	1. Scatter plots: line of best fit ZQ6
Lesson 3: Two-Way Tables	
Lesson 4: Descriptive Statistics	1. Box plots YVZ 2. Calculate mean, median, mode, and range HDX 3. Interpret charts and graphs to find mean, median, mode, and range CND 4. Mean, median, mode, and range: find the missing number Q77 5. Changes in mean, median, mode, and range 2EG 6. Calculate quartiles and interquartile range 9RU
Lesson 5: Measures of Variation	
Lesson 6: Analyze Data Distributions	1. Identify an outlier G95 2. Identify an outlier and describe the effect of removing it QZS
Checkpoint opportunity	1. Checkpoint: Scatter plots DDR 2. Checkpoint: Lines of best fit DEH 3. Checkpoint: Linear models: interpret and solve 9YQ 4. Checkpoint: Two-way frequency tables HJG