



IXL Skill Alignment

8th alignment for Glencoe Math Common Core Edition

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Chapter 1

Real Numbers

Textbook section	IXL skills
Lesson 1: Rational Numbers	D.4 Convert between decimals and fractions or mixed numbers >>
Lesson 2: Powers and Exponents	F.1 Understanding exponents >> F.2 Evaluate exponents >> F.4 Exponents with negative bases >> F.5 Exponents with decimal and fractional bases >>
Lesson 3: Multiply and Divide Monomials	F.8 Multiplication with exponents >> F.9 Division with exponents >> F.10 Multiplication and division with exponents >> BB.6 Multiply monomials >> BB.7 Divide monomials >> BB.8 Multiply and divide monomials >>
Lesson 4: Powers of Monomials	F.11 Power rule >> BB.9 Powers of monomials >>
Lesson 5: Negative Exponents	F.6 Understanding negative exponents >> F.7 Evaluate negative exponents >>
Lesson 6: Scientific Notation	G.1 Convert between standard and scientific notation >>
Lesson 7: Compute with Scientific Notation	G.3 Multiply numbers written in scientific notation >> G.4 Divide numbers written in scientific notation >>
Lesson 8: Roots	F.14 Square roots of perfect squares >> F.15 Positive and negative square roots >> F.18 Solve equations involving squares and square roots >> F.19 Cube roots of perfect cubes >>

F.20 Solve equations involving cubes and cube roots >>

Lesson 9: Estimate Roots

F.16 Estimate positive and negative square roots >>

F.21 Estimate cube roots >>

Lesson 10: Compare Real Numbers

D.5 Identify rational and irrational numbers >>

D.7 Compare rational numbers >>

D.8 Put rational numbers in order >>

Chapter 2

Equations in One Variable

Textbook section	IXL skills
Lesson 1: Solve Equations with Rational Coefficients	E.1 Reciprocals and multiplicative inverses >>
Lesson 2: Solve Two-Step Equations	W.3 Model and solve equations using algebra tiles >> W.5 Properties of equality >> W.6 Solve one-step equations >> W.7 Solve two-step equations >>
Lesson 3: Write Two-Step Equations	W.2 Write an equation from words >> W.4 Write and solve equations that represent diagrams >> W.13 Solve equations: word problems >>
Lesson 4: Solve Equations with Variables on Each Side	W.10 Solve equations with variables on both sides >>
Lesson 5: Solve Multi-Step Equations	W.8 Solve multi-step equations >> W.9 Solve equations involving like terms >> W.11 Solve equations: mixed review >> W.12 Solve equations: complete the solution >>

Chapter 3

Equations in Two Variables

Textbook section	IXL skills
Lesson 1: Constant Rate of Change	I.1 Find the constant of proportionality from a table >> I.3 Identify proportional relationships by graphing >> I.4 Find the constant of proportionality from a graph >> Z.5 Constant rate of change >>
Lesson 2: Slope	Y.1 Find the slope of a graph >> Y.2 Find the slope from two points >>
Lesson 3: Equations in $y=mx$ Form	I.2 Write equations for proportional relationships from tables >> I.5 Write equations for proportional relationships from graphs >> I.7 Graph proportional relationships >> I.9 Write and solve equations for proportional relationships >>
Lesson 4: Slope-Intercept Form	Y.5 Graph a line using slope >> Y.6 Graph a line from an equation in slope-intercept form >> Y.7 Write a linear equation from a slope and y -intercept >> Y.8 Write a linear equation from a graph >>
Lesson 5: Graph a Line Using Intercepts	Y.12 Graph a line from an equation in standard form >>
Lesson 6: Write Linear Equations	Y.9 Write a linear equation from a slope and a point >> Y.10 Write a linear equation from two points >>
Lesson 7: Solve Systems of Equations by Graphing	AA.2 Solve a system of equations by graphing >> AA.3 Solve a system of equations by graphing: word problems >>

AA.4 Find the number of solutions to a system of equations by graphing >>

Lesson 8: Solve Systems of Equations Algebraically

AA.8 Solve a system of equations using substitution >>

AA.9 Solve a system of equations using substitution: word problems >>

Chapter 4

Functions

Textbook section	IXL skills	
Lesson 1: Representing Relationships		
Lesson 2: Relations	Z.17	Find values using function graphs >>
	Z.18	Complete a table for a function graph >>
Lesson 3: Functions	Z.1	Identify functions >>
	Z.3	Identify independent and dependent variables >>
	Z.6	Evaluate a linear function >>
Lesson 4: Linear Functions	Z.7	Complete a table for a linear function >>
	Z.8	Complete a table and graph a linear function >>
	Z.9	Interpret the graph of a linear function: word problems >>
Lesson 5: Compare Properties of Functions	Z.11	Compare linear functions: graphs, tables, and equations >>
Lesson 6: Construct Functions	Z.10	Write a linear function from a table >>
	Z.12	Write linear functions: word problems >>
Lesson 7: Linear and Nonlinear Functions	Z.14	Identify linear and nonlinear functions >>
Lesson 8: Quadratic Functions		
Lesson 9: Qualitative Graphs		

Chapter 5

Triangles and the Pythagorean Theorem

Textbook section	IXL skills	
Lesson 1: Lines	O.10	Identify complementary, supplementary, vertical, adjacent, and congruent angles >>
	O.11	Find measures of complementary, supplementary, vertical, and adjacent angles >>
	O.12	Transversal of parallel lines >>
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Lesson 2: Geometric Proof		
Lesson 3: Angles of Triangles	O.6	Find missing angles in triangles >>
	O.8	Exterior Angle Theorem >>
Lesson 4: Polygons and Angles	O.7	Find missing angles in quadrilaterals >>
	O.9	Interior angles of polygons >>
Lesson 5: The Pythagorean Theorem	R.1	Pythagorean theorem: find the length of the hypotenuse >>
	R.2	Pythagorean theorem: find the missing leg length >>
	R.5	Converse of the Pythagorean theorem: is it a right triangle? >>
Lesson 6: Use the Pythagorean Theorem	R.3	Pythagorean theorem: find the perimeter >>
	R.4	Pythagorean theorem: word problems >>
Lesson 7: Distance on the Coordinate Plane	N.4	Find the distance between two points >>

Chapter 6

Transformations

Textbook section	IXL skills	
Lesson 1: Translations	P.3	Translations: graph the image >>
	P.4	Translations: find the coordinates >>
Lesson 2: Reflections	P.5	Reflections: graph the image >>
	P.6	Reflections: find the coordinates >>
Lesson 3: Rotations	P.2	Identify reflections, rotations, and translations >>
	P.7	Rotations: graph the image >>
	P.8	Rotations: find the coordinates >>
Lesson 4: Dilations	Q.2	Dilations: graph the image >>
	Q.3	Dilations: find the coordinates >>
	Q.4	Dilations: scale factor and classification >>

Chapter 7

Congruence and Similarity

Textbook section	IXL skills	
Lesson 1: Congruence and Transformations		
Lesson 2: Congruence	P.9	Congruence statements and corresponding parts >>
	P.10	Side lengths and angle measures of congruent figures >>
Lesson 3: Similarity and Transformations		
Lesson 4: Properties of Similar Polygons	Q.1	Similar and congruent figures >>
	Q.5	Side lengths and angle measures of similar figures >>
Lesson 5: Similar Triangles and Indirect Measurement		
Lesson 6: Slope and Similar Triangles		
Lesson 7: Area and Perimeter of Similar Figures		

Chapter 8

Volume and Surface Area

Textbook section	IXL skills	
Lesson 1: Volume of Cylinders	T.9	Volume of cylinders >>
Lesson 2: Volume of Cones	T.10	Volume of cones >>
Lesson 3: Volume of Spheres	T.13	Volume of spheres >>
Lesson 4: Surface Area of Cylinders	T.11	Surface area of cylinders >>
Lesson 5: Surface Area of Cones	T.12	Surface area of cones >>
Lesson 6: Changes in Dimension	T.15	Volume and surface area of similar solids >>

Chapter 9

Statistics and Probability

Textbook section	IXL skills
Lesson 1: Scatter Plots	CC.14 Scatter plots >> DD.8 Outliers in scatter plots >>
Lesson 2: Lines of Best Fit	DD.9 Scatter plots: line of best fit >>
Lesson 3: Two-Way Tables	
Lesson 4: Descriptive Statistics	CC.13 Interpret box-and-whisker plots >> DD.1 Calculate mean, median, mode, and range >> DD.2 Interpret charts and graphs to find mean, median, mode, and range >> DD.3 Mean, median, mode, and range: find the missing number >> DD.4 Changes in mean, median, mode, and range >> DD.5 Quartiles >>
Lesson 5: Measures of Variation	
Lesson 6: Analyze Data Distributions	DD.6 Identify an outlier >> DD.7 Identify an outlier and describe the effect of removing it >>