



IXL Skill Alignment

Alg 1 alignment for Pearson Texas

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Topic 1

Solving Equations and Inequalities

Textbook section	IXL skills
Lesson 1-1: Solving Multi-Step Equations	J.3 Solve one-step linear equations >>
	J.4 Solve two-step linear equations >>
	J.5 Solve advanced linear equations >>
	J.10 Solve linear equations: word problems >>
Lesson 1-2: Solving Equations with Variables on Both Sides	J.6 Solve equations with variables on both sides >>
	J.7 Solve equations: complete the solution >>
	J.8 Find the number of solutions >>
	J.11 Solve linear equations: mixed review >>
Lesson 1-3: Literal Equations	I.8 Rearrange multi-variable equations >>
Lesson 1-4: Solving Proportions	C.5 Solve proportions >>
	C.6 Solve proportions: word problems >>
Lesson 1-5: Proportions and Similar Figures	C.7 Scale drawings: word problems >>
Lesson 1-6: Solving Multi-Step Inequalities	K.4 Solve one-step linear inequalities: addition and subtraction >>
	K.5 Solve one-step linear inequalities: multiplication and division >>
	K.6 Solve one-step linear inequalities >>
	K.8 Solve two-step linear inequalities >>
	K.10 Solve advanced linear inequalities >>
Lesson 1-7: Compound Inequalities	K.12 Graph compound inequalities >>
	K.13 Write compound inequalities from graphs >>
	K.14 Solve compound inequalities >>
	K.15 Graph solutions to compound inequalities >>

Topic 2

An Introduction to Functions

Textbook section	IXL skills	
Lesson 2-1: Using Graphs to Relate Two Quantities		
Lesson 2-2: Patterns and Linear Functions	Q.3	Identify independent and dependent variables >>
Lesson 2-3: Patterns and Nonlinear Functions	Q.9	Complete a function table from a graph >>
	Q.11	Interpret the graph of a function: word problems >>
	S.1	Identify linear functions >>
Lesson 2-4: Graphing a Function Rule	Q.10	Complete a function table from an equation >>
	S.13	Complete a table and graph a linear function >>
Lesson 2-5: Writing a Function Rule	S.12	Write linear functions to solve word problems >>
Lesson 2-6: Formalizing Relations and Functions	Q.1	Relations: convert between tables, graphs, mappings, and lists of points >>
	Q.2	Domain and range of relations >>
	Q.4	Identify functions >>
	Q.5	Identify functions: vertical line test >>
Lesson 2-7: Using Function Notation	Q.7	Evaluate a function >>
	Q.8	Evaluate a function: plug in an expression >>

Topic 3

Linear Functions

Textbook section	IXL skills
Lesson 3-1: Rate of Change and Slope	S.2 Find the slope of a graph >> S.3 Find the slope from two points >>
Lesson 3-2: Direct Variation	R.1 Identify proportional relationships >> R.2 Find the constant of variation >> R.3 Graph a proportional relationship >> R.4 Write direct variation equations >> R.5 Write and solve direct variation equations >>
Lesson 3-3: Slope-Intercept Form	S.5 Slope-intercept form: find the slope and y-intercept >> S.6 Slope-intercept form: graph an equation >> S.7 Slope-intercept form: write an equation from a graph >> S.8 Slope-intercept form: write an equation >> S.9 Slope-intercept form: write an equation from a table >> S.10 Slope-intercept form: write an equation from a word problem >>
Lesson 3-4: Point-Slope Form	S.20 Point-slope form: graph an equation >> S.21 Point-slope form: write an equation >> S.22 Point-slope form: write an equation from a graph >>
Lesson 3-5: Standard Form	S.15 Write equations in standard form >> S.16 Standard form: find x- and y-intercepts >> S.17 Standard form: graph an equation >> S.18 Equations of horizontal and vertical lines >> S.19 Graph a horizontal or vertical line >>

Lesson 3-6: Parallel and Perpendicular Lines**S.23** Slopes of parallel and perpendicular lines >>**S.24** Write an equation for a parallel or perpendicular line >>**Lesson 3-7:** Transformations of Linear Functions**S.25** Transformations of linear functions >>**Lesson 3-8:** Scatter Plots and Trend Lines**KK.8** Interpret a scatter plot >>**KK.10** Match correlation coefficients to scatter plots >>**KK.11** Calculate correlation coefficients >>**KK.12** Scatter plots: line of best fit >>**KK.13** Find the equation of a regression line >>**KK.14** Interpret regression lines >>

Topic 4

Systems of Equations and Inequalities

Textbook section	IXL skills	
Lesson 4-1: Solving Systems by Graphing	U.2	Solve a system of equations by graphing >>
	U.3	Solve a system of equations by graphing: word problems >>
	U.4	Find the number of solutions to a system of equations by graphing >>
Lesson 4-2: Solving Systems Using Substitution	U.8	Solve a system of equations using substitution >>
	U.9	Solve a system of equations using substitution: word problems >>
Lesson 4-3: Solving Systems Using Elimination	U.5	Find the number of solutions to a system of equations >>
	U.10	Solve a system of equations using elimination >>
	U.11	Solve a system of equations using elimination: word problems >>
Lesson 4-4: Applications of Linear Systems	U.14	Solve a system of equations using any method >>
	U.15	Solve a system of equations using any method: word problems >>
Lesson 4-5: Linear Inequalities	T.1	Does (x, y) satisfy the inequality? >>
	T.2	Linear inequalities: solve for y >>
	T.3	Graph a two-variable linear inequality >>
	T.4	Linear inequalities: word problems >>
Lesson 4-6: Systems of Linear Inequalities	T.5	Is (x, y) a solution to the system of inequalities? >>
	T.6	Solve systems of linear inequalities by graphing >>

Topic 5

Exponents and Radicals

Textbook section	IXL skills
Lesson 5-1: Zero and Negative Exponents	V.1 Exponents with integer bases >> V.2 Exponents with decimal and fractional bases >> V.3 Negative exponents >>
Lesson 5-2: Multiplying Powers with the Same Base	V.4 Multiplication with exponents >>
Lesson 5-3: More Multiplication Properties of Exponents	V.7 Power rule >>
Lesson 5-4: Division Properties of Exponents	V.5 Division with exponents >> V.6 Multiplication and division with exponents >>
Lesson 5-5: Rational Exponents and Radicals	A.6 Square roots >> A.7 Cube roots >> V.10 Evaluate integers raised to rational exponents >>
Lesson 5-6: Simplifying Radicals	EE.1 Simplify radical expressions >> EE.2 Simplify radical expressions with variables >> EE.3 Simplify radical expressions involving fractions >> EE.4 Multiply radical expressions >>
Lesson 5-7: The Pythagorean Theorem	F.14 Pythagorean theorem >> F.15 Pythagorean theorem: word problems >> F.16 Converse of the Pythagorean theorem: is it a right triangle? >>

Topic 6

Sequences

Textbook section	IXL skills
Lesson 6-1: Arithmetic and Geometric Sequences	P.1 Identify arithmetic and geometric sequences >>
	P.2 Arithmetic sequences >>
	P.3 Geometric sequences >>
	P.5 Write variable expressions for arithmetic sequences >>
	P.6 Write variable expressions for geometric sequences >>
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Lesson 6-2: Arithmetic Sequences in Recursive Form	
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Lesson 6-3: Geometric Sequences in Recursive Form	
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Topic 7

Polynomials and Factoring

Textbook section	IXL skills
Lesson 7-1: Adding and Subtracting Polynomials	Z.1 Polynomial vocabulary >> Z.4 Add and subtract polynomials >>
Lesson 7-2: Multiplying and Factoring	Z.6 Multiply a polynomial by a monomial >> AA.1 GCF of monomials >> AA.2 Factor out a monomial >>
Lesson 7-3: Multiplying Binomials	Z.7 Multiply two polynomials using algebra tiles >> Z.8 Multiply two binomials >>
Lesson 7-4: Multiplying Special Cases	Z.9 Multiply two binomials: special cases >>
Lesson 7-5: Factoring $x^2 + bx + c$	AA.4 Factor quadratics with leading coefficient 1 >>
Lesson 7-6: Factoring $ax^2 + bx + c$	AA.3 Factor quadratics using algebra tiles >> AA.5 Factor quadratics with other leading coefficients >>
Lesson 7-7: Factoring Special Cases	AA.6 Factor quadratics: special cases >>
Lesson 7-8: Factor by Grouping	AA.7 Factor by grouping >>
Lesson 7-9: Simplifying Rational Expressions	GG.3 Simplify rational expressions >>
Lesson 7-10: Dividing Polynomials	Y.3 Divide monomials >> GG.5 Divide polynomials >>

Topic 8

Quadratic Functions and Relations

Textbook section	IXL skills
Lesson 8-1: Quadratic Graphs and their Properties	
Lesson 8-2: Quadratic Functions	BB.1 Characteristics of quadratic functions >>
	BB.2 Complete a function table: quadratic functions >>
	BB.12 Match quadratic functions and graphs >>
Lesson 8-3: Transformations of Quadratic Functions	BB.3 Transformations of quadratic functions >>
Lesson 8-4: Vertex Form of a Quadratic Function	BB.4 Graph quadratic functions in vertex form >>
Lesson 8-5: Solving Quadratic Equations	BB.5 Solve a quadratic equation using square roots >>
Lesson 8-6: Factoring to Solve Quadratic Equations	BB.6 Solve a quadratic equation using the zero product property >>
	BB.7 Solve a quadratic equation by factoring >>
Lesson 8-7: Writing Quadratic Functions	
Lesson 8-8: Completing the Square	BB.8 Complete the square >>
	BB.9 Solve a quadratic equation by completing the square >>
Lesson 8-9: The Quadratic Formula and the Discriminant	BB.10 Solve a quadratic equation using the quadratic formula >>
	BB.11 Using the discriminant >>

Topic 9

Exponential Functions and Equations

Textbook section	IXL skills	
Lesson 9-1: Exponential Functions	X.1	Evaluate an exponential function >>
	X.2	Match exponential functions and graphs >>
Lesson 9-2: Exponential Growth and Decay	X.5	Exponential growth and decay: word problems >>
Lesson 9-3: Modeling Exponential Data		