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 Quantites		
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 >>
Lesson 6-2: Arithmetic Sequences in Recursive Form		
Lesson 6-3: Geometric Sequences in Recursive Form		

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 x2 + bx + c	**AA.4**	Factor quadratics with leading coefficient 1 >>
Lesson 7-6: Factoring ax2 + 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 >>
Lesosn 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		