



IXL Skill Alignment

Alg 2 alignment for EngageNY Common Core Curriculum

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Module 1

Polynomial, Rational, and Radical Relationships

Textbook section	IXL skills
Topic A: Polynomials-From Base Ten to Base X	J.5 Solve a quadratic equation using the zero product property >>
	J.12 Write a quadratic function from its zeros >>
	K.2 Add and subtract polynomials >>
	K.3 Multiply polynomials >>
	K.8 Find the roots of factored polynomials >>
	K.9 Write a polynomial from its roots >>
	L.9 Add and subtract radical expressions >>
	L.11 Simplify radical expressions using conjugates >>
	<i>See also:</i>
	K.1 Polynomial vocabulary >>
Topic B: Factoring-Its Use and Its Obstacles	I.3 Factor quadratics >>
	I.6 Factor sums and differences of cubes >>
	I.7 Factor polynomials >>
	J.6 Solve a quadratic equation by factoring >>
	J.8 Solve a quadratic equation by completing the square >>
	J.9 Solve a quadratic equation using the quadratic formula >>
	K.4 Divide polynomials using long division >>
	K.9 Write a polynomial from its roots >>
	K.14 Match polynomials and graphs >>
Topic C: Solving and Applying Equations-Polynomial, Rational, and Radical	E.13 Solve a system of equations in three variables using elimination >>
	L.13 Solve radical equations >>
	N.4 Simplify rational expressions >>
	N.5 Multiply and divide rational expressions >>
	N.6 Add and subtract rational expressions >>
	N.7 Solve rational equations >>
	T.9 Graph parabolas >>

See also:

- E.12** Solve a system of equations in three variables using substitution >>
- N.2** Evaluate rational expressions I >>
- N.3** Evaluate rational expressions II >>
- U.4** Write equations of circles in standard form using properties >>
- U.5** Convert equations of circles from general to standard form >>
- U.7** Graph circles >>

Topic D: A Surprise from Geometry-Complex Numbers Overcome All Obstacles

- H.1** Introduction to complex numbers >>
- H.2** Add and subtract complex numbers >>
- H.4** Multiply complex numbers >>
- J.10** Using the discriminant >>

See also:

- K.11** Complex conjugate theorem >>
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Module 2

Trigonometric Functions

Textbook section	IXL skills
Topic A: The Story of Trigonometry and Its Contexts	X.1 Convert between radians and degrees >>
	X.6 Reference angles >>
	Y.7 Sin, cos, and tan of special angles >>
	Y.8 Csc, sec, and cot of special angles >>
	<i>See also:</i>
	X.4 Quadrants >>
Topic B: Understanding Trigonometric Functions and Putting Them to Use	AA.3 Trigonometric identities I >>
	AA.4 Trigonometric identities II >>
	<i>See also:</i>
	Z.1 Find properties of sine functions >>
	Z.4 Graph sine functions >>
	Z.8 Graph cosine functions >>
	Z.9 Graph sine and cosine functions >>

Module 3

Exponential and Logarithmic Functions

Textbook section	IXL skills
Topic A: Real Numbers	M.2 Multiplication with rational exponents >>
	M.3 Division with rational exponents >>
	M.4 Power rule >>
	M.5 Simplify expressions involving rational exponents I >>
	M.6 Simplify expressions involving rational exponents II >>
	<i>See also:</i>
	D.10 Average rate of change >>
	L.1 Roots of integers >>
	L.2 Roots of rational numbers >>
	M.1 Evaluate rational exponents >>
Topic B: Logarithms	R.1 Convert between exponential and logarithmic form: rational bases >>
	R.4 Evaluate logarithms >>
	R.5 Evaluate natural logarithms >>
	R.6 Change of base formula >>
	R.8 Product property of logarithms >>
	R.9 Quotient property of logarithms >>
	R.10 Power property of logarithms >>
	R.11 Properties of logarithms: mixed review >>
	S.7 Solve logarithmic equations I >>
	S.8 Solve logarithmic equations II >>
Topic C: Exponential and Logarithmic Functions and their Graphs	O.11 Find inverse functions and relations >>
	<i>See also:</i>
	O.8 Identify inverse functions >>
	S.1 Domain and range of exponential and logarithmic functions >>

Topic D: Using Logarithms in Modeling Situations

- S.4** Solve exponential equations using factoring >>
- S.5** Solve exponential equations using common logarithms >>
- S.6** Solve exponential equations using natural logarithms >>
- S.12** Exponential growth and decay: word problems >>
- S.13** Compound interest: word problems >>
- S.14** Continuously compounded interest: word problems >>

See also:

- BB.5** Classify formulas and sequences >>

Topic E: Geometric Series and Finance

Module 4

Inferences and Conclusions from Data

Textbook section	IXL skills
Topic A: Probability	CC.9 Find conditional probabilities >> CC.11 Find conditional probabilities using two-way frequency tables >> CC.12 Find probabilities using the addition rule >> <i>See also:</i> CC.7 Identify independent events >> CC.10 Independence and conditional probability >>
Topic B: Modeling Data Distributions	
Topic C: Drawing Conclusions Using Data from a Sample	EE.1 Identify biased samples >> EE.2 Variance and standard deviation >>
Topic D: Drawing Conclusions Using Data from an Experiment	EE.12 Experiment design >>