IXL Skill Alignment

Algebra 2 alignment for Eureka Math 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	1. Solve a quadratic equation using the zero product property TRU 2. Write a quadratic function from its zeroes G2Q 3. Add and subtract polynomials 9A3 4. Multiply polynomials 8GN 5. Find the roots of factored polynomials PVM 6. Write a polynomial from its roots BTU 7. Add and subtract radical expressions L46 8. Simplify radical expressions using conjugates FX7 *Also consider* • Polynomial vocabulary DYB
Topic B: Factoring-Its Use and Its Obstacles	1. Factor quadratics UB5 2. Factor sums and differences of cubes NJV 3. Factor polynomials A2W 4. Solve a quadratic equation by factoring CJC 5. Solve a quadratic equation by completing the square NPH 6. Solve a quadratic equation using the quadratic formula YQH 7. Divide polynomials using long division YN5 8. Write a polynomial from its roots BTU 9. Match polynomials and graphs XJU
Topic C: Solving and Applying Equations-Polynomial, Rational, and Radical	1. Solve a system of equations in three variables using elimination 9S5 2. Solve radical equations EHE 3. Simplify rational expressions 37N 4. Multiply and divide rational expressions MG2 5. Add and subtract rational expressions FEX 6. Solve rational equations CHP

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7. Graph parabolas YNJ

Also consider

- Solve a system of equations in three variables using substitution X8H
- Evaluate rational expressions I RHV
- Evaluate rational expressions II 9KA
- Write equations of circles in standard form using properties SHN
- Convert equations of circles from general to standard form D2H
- Graph circles 2PL

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

1. Introduction to complex numbers 5VV
2. Add and subtract complex numbers JVF
3. Multiply complex numbers VZ8
4. Using the discriminant QHK

Also consider

- Complex conjugate theorem 5WU

Module 2

Trigonometric Functions

Textbook section	IXL skills
Topic A: The Story of Trigonometry and Its Contexts	1. Convert between radians and degrees EDC 2. Reference angles BRP 3. Sin, cos, and tan of special angles 6H8 4. Csc, sec, and cot of special angles PAE *Also consider* • Quadrants ANN
Topic B: Understanding Trigonometric Functions and Putting Them to Use	1. Trigonometric identities I XJJ 2. Trigonometric identities II F8F *Also consider* • Find properties of sine functions 2EK • Graph sine functions 9NS • Graph cosine functions KXG • Graph sine and cosine functions A7V

Module 3

Exponential and Logarithmic Functions

Textbook section	IXL skills
Topic A: Real Numbers	1. Multiplication with rational exponents LMC 2. Division with rational exponents AN5 3. Power rule V2J 4. Simplify expressions involving rational exponents I 2VX 5. Simplify expressions involving rational exponents II U96 *Also consider* • Average rate of change PHD • Roots of integers EUH • Roots of rational numbers HNE • Evaluate rational exponents KJX
Topic B: Logarithms	1. Convert between exponential and logarithmic form: rational bases TPA 2. Evaluate logarithms GBR 3. Evaluate natural logarithms XG9 4. Change of base formula J2R 5. Product property of logarithms CW9 6. Quotient property of logarithms ZNT 7. Power property of logarithms 7T3 8. Properties of logarithms: mixed review 5LL 9. Solve logarithmic equations I BXU 10. Solve logarithmic equations II RLX
Topic C: Exponential and Logarithmic Functions and their Graphs	1. Find inverse functions and relations ZRQ *Also consider* • Identify inverse functions 9KT • Domain and range of exponential and logarithmic functions GLL

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Topic D: Using Logarithms in Modeling Situations

1. Solve exponential equations using factoring YQY
2. Solve exponential equations using common logarithms 9F2
3. Solve exponential equations using natural logarithms KVL
4. Exponential growth and decay: word problems TYQ
5. Compound interest: word problems YJW
6. Continuously compounded interest: word problems 5GU

Also consider

- Classify formulas and sequences 2UZ

Topic E: Geometric Series and Finance

Module 4

Inferences and Conclusions from Data

Textbook section	IXL skills
Topic A: Probability	1. Find conditional probabilities 2M4 2. Find conditional probabilities using two-way frequency tables HGC 3. Find probabilities using the addition rule B9L *Also consider* • Identify independent events RTZ • Independence and conditional probability AJC
Topic B: Modeling Data Distributions	
Topic C: Drawing Conclusions Using Data from a Sample	1. Identify biased samples CH7 2. Variance and standard deviation V5H
Topic D: Drawing Conclusions Using Data from an Experiment	1. Experiment design BKR