IXL Skill Alignment

Course 2 alignment for McGraw-Hill Integrated Math

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Chapter 0

Preparing for Integrated Math II

Textbook section	IXL skills
Lesson 0-1: Changing Units of Measure Within Systems	1. Convert rates and measurements: customary units TXC 2. Convert rates and measurements: metric units 6W2
Lesson 0-2: Changing Units of Measure Between Systems	
Lesson 0-3: Simple Probability	1. Theoretical probability 2MS 2. Experimental probability LQV
Lesson 0-4: Algebraic Expressions	1. Evaluate variable expressions involving integers T9J
Lesson 0-5: Linear Equations	1. Solve linear equations PHF
Lesson 0-6: Linear Inequalities	1. Solve linear inequalities 9MX
Lesson 0-7: Inverse Linear Functions	
Lesson 0-8: Ordered Pairs	1. Coordinate plane review H6E
Lesson 0-9: Systems of Linear Equations	1. Solve systems of linear equations 76G
Lesson 0-10: Square Roots and Simplifying Radicals	1. Simplify radical expressions ZFF 2. Simplify radical expressions with variables 82V

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Chapter 1

Quadratic Expressions and Equations

Textbook section	IXL skills
Lesson 1-1: Adding and Subtracting Polynomials	1. Identify monomials QSC 2. Polynomial vocabulary MTT 3. Add and subtract polynomials 5EK
Lesson 1-2: Multiplying a Polynomial by a Monomial	1. Multiply a polynomial by a monomial G2G
Lesson 1-3: Multiplying Polynomials	1. Multiply two binomials M7Q 2. Multiply polynomials 58A
Lesson 1-4: Special Products	1. Multiply two binomials: special cases 9JN
Lesson 1-5: Using the Distributive Property	1. Factor out a monomial JZL 2. Factor quadratics using algebra tiles Y6U 3. Factor by grouping HAA 4. Solve a quadratic equation using the zero product property TNM
Lesson 1-6: Solving x2 + bx + c= 0	1. Factor quadratics with leading coefficient 1 S9P
Lesson 1-7: Solving ax2 + bx + c= 0	1. Factor quadratics with other leading coefficients 7ED 2. Solve a quadratic equation by factoring CSS
Lesson 1-8: Differences of Squares	1. Factor quadratics: special cases 56E
Lesson 1-9: Perfect Squares	
Lesson 1-10: Roots and Zeros	1. Solve polynomial equations ZCH 2. Write a polynomial from its roots BTU 3. Fundamental Theorem of Algebra YS8

Chapter 2

Quadratic Functions and Equations

Textbook section	IXL skills
Lesson 2-1: Graphing Quadratic Functions	1. Characteristics of quadratic functions: graphs HW8 2. Graph quadratic functions in vertex form C7T
Lesson 2-2: Solving Quadratic Equations by Graphing	
Lesson 2-3: Transformations of Quadratic Functions	1. Transformations of quadratic functions 6YS
Lesson 2-4: Solving Quadratic Equations by Completing the Square	1. Complete the square RD2 2. Solve a quadratic equation by completing the square XCL
Lesson 2-5: Solving Quadratic Equations by Using the Quadratic Formula	1. Solve a quadratic equation using the quadratic formula XCF
Lesson 2-6: Analyzing Functions with Successive Differences	1. Identify linear, quadratic, and exponential functions from graphs DHB 2. Identify linear, quadratic, and exponential functions from tables SP5 3. Write linear, quadratic, and exponential functions from tables AFA
Lesson 2-7: Special Functions	1. Complete a function table: absolute value functions 2DH 2. Graph an absolute value function TD2 3. Domain and range of absolute value functions: graphs NV7 4. Domain and range of absolute value functions: equations FCY

Chapter 3

Quadratic Functions and Relations

Textbook section	IXL skills
Lesson 3-1: Solving Quadratic Equations by Factoring	1. Solve a quadratic equation by factoring CSS
Lesson 3-2: Complex Numbers	1. Introduction to complex numbers 5VV 2. Add and subtract complex numbers JVF 3. Complex conjugates 7U5 4. Multiply complex numbers VZ8 5. Divide complex numbers MBM 6. Add, subtract, multiply, and divide complex numbers CEN 7. Powers of i EUT
Lesson 3-3: The Quadratic Formula and the Discriminant	1. Using the discriminant SMF
Lesson 3-4: Transformations of Quadratic Graphs	1. Match quadratic functions and graphs AU8
Lesson 3-5: Quadratic Inequalities	

Chapter 4

Exponential and Logarithmic Functions and Relations

Textbook section	IXL skills
Lesson 4-1: Graphing Exponential Functions	1. Match exponential functions and graphs II 72J 2. Domain and range of exponential functions: graphs ANC 3. Domain and range of exponential functions: equations DZE 4. Exponential growth and decay: word problems UKG
Lesson 4-2: Solving Exponential Equations and Inequalities	1. Solve exponential equations by rewriting the base YQY 2. Compound interest: word problems YJW
Lesson 4-3: Simplifying Radical Expressions	1. Simplify radical expressions ZFF 2. Simplify radical expressions with variables 82V 3. Simplify radical expressions involving fractions VRZ 4. Simplify radical expressions using conjugates TYC
Lesson 4-4: Operations with Radical Expressions	1. Multiply radical expressions HMX 2. Add and subtract radical expressions DLV 3. Simplify radical expressions using the distributive property 28V 4. Simplify radical expressions: mixed review YZC
Lesson 4-5: Radical Equations	1. Solve radical equations I MMG 2. Solve radical equations II ZGH

Chapter 5
Reasoning and Proof

Textbook section	IXL skills
Lesson 5-1: Postulates and Paragraph Proofs	
Lesson 5-2: Algebraic Proof	1. Properties of equality H8Q
Lesson 5-3: Proving Segment Relationships	
Lesson 5-4: Proving Angle Relationships	1. Identify complementary, supplementary, vertical, adjacent, and congruent angles 7P7 2. Find measures of complementary, supplementary, vertical, and adjacent angles VZU 3. Proofs involving angles HV9
Lesson 5-5: Angles and Parallel Lines	1. Transversals: name angle pairs V85 2. Transversals of parallel lines: find angle measures WB9
Lesson 5-6: Proving Lines Parallel	1. Proofs involving parallel lines I CUV 2. Proofs involving parallel lines II 5U8

Chapter 6
Congruent Triangles

Textbook section	IXL skills
Lesson 6-1: Angles of Triangles	1. Triangle Angle-Sum Theorem UBU 2. Exterior Angle Theorem TGK
Lesson 6-2: Congruent Triangles	1. Congruence statements and corresponding parts CYL 2. Solve problems involving corresponding parts WYB
Lesson 6-3: Proving triangles Congruent-SSS, SAS	1. SSS and SAS Theorems 48Q 2. Proving triangles congruent by SSS and SAS VVZ 3. SSS Theorem in the coordinate plane C5G
Lesson 6-4: Proving Triangles Congruent-ASA, AAS	1. ASA and AAS Theorems N94 2. Proving triangles congruent by ASA and AAS 23Z 3. SSS, SAS, ASA, and AAS Theorems LER
Lesson 6-5: Isosceles and Equilateral Triangles	1. Congruency in isosceles and equilateral triangles HPR 2. Proofs involving isosceles triangles V45
Lesson 6-6: Triangles and Coordinate Proof	

Chapter 7

Relationships in Triangles

Textbook section	IXL skills
Lesson 7-1: Bisectors of Triangles	1. Perpendicular Bisector Theorem BKS 2. Angle bisectors 68E 3. Triangles and bisectors GWE
Lesson 7-2: Medians and Altitudes of Trianges	1. Identify medians, altitudes, angle bisectors, and perpendicular bisectors JWN
Lesson 7-3: Inequalities in One Triangle	1. Exterior Angle Inequality YQA 2. Angle-side relationships in triangles ZN8
Lesson 7-4: Indirect Proof	
Lesson 7-5: Triangle Inequality Theorem	1. Triangle Inequality Theorem BW7
Lesson 7-6: Inequalities in Two Triangles	

Chapter 8
Quadrilaterals

Textbook section	IXL skills
Lesson 8-1: Angles of Polygons	1. Interior angles of polygons SZF 2. Exterior angles of polygons MQ7 3. Interior and exterior angles of polygons: mixed practice 6VG
Lesson 8-2: Parallelograms	1. Properties of parallelograms LLK
Lesson 8-3: Tests for Parallelograms	1. Proving a quadrilateral is a parallelogram H89
Lesson 8-4: Rectangles	
Lesson 8-5: Rhombi and Squares	1. Properties of rhombuses QVX 2. Properties of squares and rectangles R9M
Lesson 8-6: Trapezoids and Kites	1. Properties of trapezoids UC9 2. Properties of kites LZ9 3. Properties of quadrilaterals: mixed practice Q2R 4. Proofs involving triangles and quadrilaterals V7W 5. Proofs involving quadrilaterals P77

Chapter 9

Proportions and Similarity

Textbook section	IXL skills
Lesson 9-1: Ratios and Proportions	1. Solve proportions: word problems 8ES 2. Ratios and proportions 8EU
Lesson 9-2: Similar Polygons	1. Ratios in similar figures BT7 2. Similarity statements UG8 3. Identify similar figures 85X 4. Side lengths and angle measures in similar figures E2K 5. Perimeters of similar figures 9T8
Lesson 9-3: Similar Triangles	1. Similar triangles and indirect measurement JWK 2. Similarity rules for triangles XJQ
Lesson 9-4: Parallel Lines and Proportional Parts	1. Midsegments of triangles 8GT 2. Triangle Proportionality Theorem 6WA
Lesson 9-5: Parts of Similar Triangles	
Lesson 9-6: Similarity Transformations	1. Dilations: graph the image ZRD 2. Dilations: find the coordinates 5KZ 3. Dilations: find the scale factor ZDM 4. Similar triangles and similarity transformations G2Z
Lesson 9-7: Scale Drawings and Models	1. Scale drawings: word problems M7M

Chapter 10

Right Triangles and Trigonometry

Textbook section	IXL skills
Lesson 10-1: Geometric Mean	
Lesson 10-2: The Pythagorean Theorem and Its Converse	1. Prove the Pythagorean theorem JGT 2. Pythagorean theorem F55 3. Converse of the Pythagorean theorem NCK 4. Pythagorean Inequality Theorems PZ7
Lesson 10-3: Special Right Triangles	1. Special right triangles LDM
Lesson 10-4: Trigonometry	1. Trigonometric ratios: sin, cos, and tan VLY 2. Trigonometric ratios with radicals: sin, cos, and tan D5Z 3. Trigonometric ratios: csc, sec, and cot L8J 4. Trigonometric ratios: find a side length UZC 5. Trigonometric ratios: find an angle measure 49E 6. Solve a right triangle GPR
Lesson 10-5: Angles of Elevation and Depression	
Lesson 10-6: The Law of Sines and Law of Cosines	1. Law of Sines ZEL 2. Law of Cosines 24X 3. Solve a triangle REQ
Lesson 10-7: Vectors	1. Find the magnitude of a vector 7BB 2. Find the component form of a vector 2UV 3. Find the component form of a vector given its magnitude and direction angle 96Z 4. Graph a resultant vector using the triangle method 59Z 5. Graph a resultant vector using the parallelogram method KF8 6. Add vectors KLY

Chapter 11
Circles

Textbook section	IXL skills
Lesson 11-1: Circles and Circumference	
Lesson 11-2: Measuring Angles and Arcs	1. Parts of a circle 4X2 2. Central angles and arc measures VZX 3. Arc length 7L9
Lesson 11-3: Arcs and Chords	1. Arcs and chords P63
Lesson 11-4: Inscribed Angles	1. Inscribed angles 98U 2. Angles in inscribed right triangles 6DL 3. Angles in inscribed quadrilaterals I 24Y 4. Angles in inscribed quadrilaterals II 2Y5
Lesson 11-5: Tangents	1. Tangent lines CFV
Lesson 11-6: Secants, Tangents, and Angle Measures	
Lesson 11-7: Special Segments in a Circle	
Lesson 11-8: Equations of Circles	1. Write equations of circles in standard form from graphs 8HJ 2. Write equations of circles in standard form using properties EXA 3. Graph circles from equations in standard form GVH 4. Graph circles from equations in general form 2AU
Lesson 11-9: Areas of Circles and Sectors	1. Area and circumference of circles ZDX 2. Area of sectors XZQ 3. Circle measurements: mixed review TFF

Chapter 12

Extending Surface Area and Volume

Textbook section	IXL skills
Lesson 12-1: Representations of Three-Dimensional Figures	1. Nets and drawings of three-dimensional figures PKE 2. Cross sections of three-dimensional figures 7Z4
Lesson 12-2: Surface Areas of Prisms and Cylinders	1. Surface area of prisms and cylinders SWV
Lesson 12-3: Surface Areas of Pyramids and Cones	1. Surface area of pyramids and cones 8WX
Lesson 12-4: Volumes of Prisms and Cylinders	1. Volume of prisms and cylinders N5F
Lesson 12-5: Volumes of Pyramids and Cones	1. Volume of pyramids and cones 7J3
Lesson 12-6: Surface Area and Volume of Spheres	1. Volume of spheres 62N
Lesson 12-7: Spherical Geometry	
Lesson 12-8: Congruent and Similar Solids	1. Similar solids: find the missing length UT7 2. Surface area and volume of similar solids N9X

Chapter 13

Probability and Measurement

Textbook section	IXL skills
Lesson 13-1: Representing Sample Spaces	1. Counting principle NMP
Lesson 13-2: Probability with Permutations and Combinations	1. Permutations 2A8 2. Permutation and combination notation YXM
Lesson 13-3: Geometric Probability	1. Geometric probability KBK
Lesson 13-4: Simulations	1. Theoretical and experimental probability 2L5
Lesson 13-5: Probabilities of Independent and Dependent Events	1. Outcomes of compound events 82S 2. Identify independent and dependent events GW9
Lesson 13-6: Probabilities of Mutually Exclusive Events	