

SCCCR	Description	Textbook Module	Textbook Topic	Textbook Lesson	MATHia Module	MATHia Unit	MATHia Workspace
G.GCI.1	Prove that all circles are similar.	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	1: Running Circles Around Geometry: Using Circles to Make Conjectures (M1-111A-M1-126A)	1: Reasoning with Shapes	1: Properties of Circles	1: Introduction to Circles
		4: Connecting Geometric and Algebraic Descriptions	1: Circles and Volume	1: All Circles Great and Small: Similarity Relationships in Circles (M4-7A-M4-24A)			
G.GCI.2	Identify and describe relationships among inscribed angles, radii, and chords; among inscribed angles, central angles, and circumscribed angles; and between radii and tangents to circles. Use those relationships to solve mathematical and real-world problems	2: Establishing Congruence	2: Justifying Line and Angle Relationships	5: Corners in a Round Room: Angle Relationships Inside and Outside Circles (M2-141A-M2-170A)	1: Reasoning with Shapes	1: Properties of Circles	1: Introduction to Circles 2: Determining Central and Inscribed Angles in Circles
			3: Using Congruence Theorems	3: Three-Chord Song: Relationships Between Chords (M2-225A-M2-239A)	4: Connecting Geometric and Algebraic Descriptions	1: Arc Length	2: Determining Chords in Circles 3: Determining Interior and Exterior Angles in Circles
G.GCI.3	Construct the inscribed and circumscribed circles of a triangle using a variety of tools, including a compass, a straightedge, and dynamic geometry software, and prove properties of angles for a quadrilateral inscribed in a circle.	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	5: What's the Point?: Points of Concurrency (M1-175A-M1-192A)			
		2: Establishing Congruence	2: Justifying Line and Angle Relationships	5: Corners in a Round Room: Angle Relationships Inside and Outside Circles (M2-141A-M2-170A)	1: Reasoning with Shapes	1: Properties of Circles	3: Angles of an Inscribed Quadrilateral
G.GCI.4	Construct a tangent line to a circle through a point on the circle, and construct a tangent line from a point outside a given circle to the circle; justify the process used for each construction.	2: Establishing Congruence	2: Justifying Line and Angle Relationships	5: Corners in a Round Room: Angle Relationships Inside and Outside Circles (M2-141A-M2-170A)			
G.GCI.5	Derive the formulas for the length of an arc and the area of a sector in a circle and apply these formulas to solve mathematical and real-world problems.	4: Connecting Geometric And Algebraic Descriptions	1: Circles and Volume	1: All Circles Great and Small: Similarity Relationships in Circles (M4-7A-M4-24A) 2: A Slice of Pi: Sectors and Segments of a Circle (M4-25A-M4-44A)	4: Connecting Geometric and Algebraic Descriptions	1: Arc Length	1: Relating Arc Length and Radius 4: Calculating the Area of a Sector

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G.GCO.1	Define angle, perpendicular line, parallel line, line segment, ray, circle, and skew in terms of the undefined notions of point, line, and plane. Use geometric figures to represent and describe real-world objects.	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	2: Hip to Be Square: Constructing a Coordinate Plane (M1-17A-M1-32A)	1: Tools of Geometry	1: Lines, Rays, Segments, and Angles	1: Naming Lines, Rays, Segments, and Angles 2: Working with Measures of Segments and Angles
			3: Rigid Motions on a Plane	1: Put Your Input In, Take Your Output Out: Geometric Components of Rigid Motions (M1-205A-M1-216A)  4: Turn Yourself Around: Rotations as Functions (M1-243A-M1-256A)	2: Establishing Congruence	3: Introduction to Proofs with Segments and Angles	1: Introduction to Proofs 2: Completing Measure Proofs
G.GCO.2	Represent translations, reflections, rotations, and dilations of objects in the plane by using paper folding, sketches, coordinates, function notation, and dynamic geometry software, and use various representations to help understand the effects of simple transformations and their compositions.	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	2: Hip to Be Square: Constructing a Coordinate Plane (M1-17A-M1-32A)			
			3: Rigid Motions on a Plane	2: Bow Thai: Translations as Functions (M1-217A-M1-228A)  3: Staring Back at Me: Reflections as Functions (M1-229A-M1-242A)  4: Turn Yourself Around: Rotations as Functions (M1-243A-M1-256A)			
G.GCO.3	Describe rotations and reflections that carry a regular polygon onto itself and identify types of symmetry of polygons, including line, point, rotational, and self-congruence, and use symmetry to analyze mathematical situations.	1: Analyzing Geometric Functions	3: Rigid Motions on a Plane	5: OKEECHOBEE: Reflectional and Rotational Symmetry (M1-257A-M1-266A)	1: Reasoning with Shapes	5: Rigid Motion	2: Rotations and Reflections on the Plane 3: Reflectional Symmetry 4: Rotational Symmetry

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G.GCO.4	Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.	1: Analyzing Geometric Functions	3: Rigid Motions on a Plane	1: Put Your Input In, Take Your Output Out: Geometric Components of Rigid Motions (M1-205A-M1-216A) 2: Bow Thai: Translations as Functions (M1-217A-M1-228A) 3: Staring Back at Me: Reflections as Functions (M1-229A-M1-242A) 4: Turn Yourself Around: Rotations as Functions (M1-243A-M1-256A)	1: Reasoning with Shapes	5: Rigid Motion	1: Developing Definitions of Rigid Motions
G.GCO.5	Predict and describe the results of transformations on a given figure using geometric terminology from the definitions of the transformations, and describe a sequence of transformations that maps a figure onto its image.	1: Analyzing Geometric Functions	3: Rigid Motions on a Plane	3: Staring Back at Me: Reflections as Functions (M1-229A-M1-242A) 4: Turn Yourself Around: Rotations as Functions (M1-243A-M1-256A)	1: Reasoning with Shapes	5: Rigid Motion	5: Specifying a Sequence of Transformations
G.GCO.6	Demonstrate that triangles and quadrilaterals are congruent by identifying a combination of translations, rotations, and reflections in various representations that move one figure onto the other.	1: Analyzing Geometric Functions	3: Rigid Motions on a Plane	1: Put Your Input In, Take Your Output Out: Geometric Components of Rigid Motions (M1-205A-M1-216A)			
		2: Establishing Congruence	1: Congruence Through Transformations	2: ASA, SAS, and SSS: Proving Triangle Congruence Theorems (M2-23A-M2-38A)			
G.GCO.7	Prove two triangles are congruent by applying the Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.	2: Establishing Congruence	1: Congruence Through Transformations	2: ASA, SAS, and SSS: Proving Triangle Congruence Theorems (M2-23A-M2-38A) 3: I Never Forget a Face: Using Triangle Congruence Theorems (M2-39A-M2-50A)	2: Establishing Congruence	1: Proving Triangle Congruence	1: Introduction to Triangle Congruence

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G.GCO.8	Prove, and apply in mathematical and real-world contexts, theorems about lines and angles, including the following:	2: Establishing Congruence	1: Congruence Through Transformations	1. The Elements: Formal Reasoning in Euclidean Geometry: (M2-7A-M2-22A)	2: Establishing Congruence	1: Proving Triangle Congruence	1: Introduction to Triangle Congruence
			2: Justifying Line and Angle Relationships	1: Proof Positive: Forms of Proof (M2-61A-M2-82A)			
GCO.8.a	vertical angles are congruent	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	1: Running Circles Around Geometry: Using Circles to Make Conjectures (M1-111A-M1-126A)	2: Establishing Congruence	3: Introduction to Proofs with Segments and Angles	1: Introduction to Proofs 4: Using Angle Theorems
		2: Establishing Congruence	2: Justifying Line and Angle Relationships	1: Proof Positive: Forms of Proof (M2-61A-M2-82A)			
G.GCO.8.b	when a transversal crosses parallel lines, alternate interior angles are congruent, alternate exterior angles are congruent, and consecutive interior angles are supplementary;	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	1: Running Circles Around Geometry: Using Circles to Make Conjectures (M1-111A-M1-126A)	2: Establishing Congruence	3: Lines Cut by a Transversal	1: Classifying Angles Formed by Transversals 2: Calculating Angle Measures Formed by Transversals 3: Calculating Angles Formed by Multiple Transversals
		2: Establishing Congruence	2: Justifying Line and Angle Relationships	2: A Parallel Universe: Proving Parallel Line Theorems (M2-83A-M2-102A)			
G.GCO.8.c	any point on a perpendicular bisector of a line segment is equidistant from the endpoints of the segment;	1: Reasoning with Shapes	1: Using a Rectangular Coordinate System	2: Hip to Be Square: Constructing a Coordinate Plane (M1-17A-M1-32A)			
		1: Reasoning with Shapes	2: Composing and Decomposing Shapes	1: Running Circles Around Geometry: Using Circles to Make Conjectures (M1-111A-M1-126A)			
		2: Establishing Congruence	2: Justifying Line and Angle Relationships	4: Identical Twins: Perpendicular Bisector and Isosceles Triangle Theorems (M2-119A-M2-140A)			
G.GCO.8.d	perpendicular lines form four right angles	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	2: Hip to Be Square: Constructing a Coordinate Plane (M1-17A-M1-32A)			

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G.GCO.9	Prove, and apply in mathematical and real-world contexts, theorems about the relationships within and among triangles, including the following:	2: Establishing Congruence	3: Using Congruence Theorems	1: SSS, SAS, AAS, ... S.O.SI: Using Triangle Congruence to Determine Relationships Between Segments (M2-185A-M2-196A)	2: Establishing Congruence	2: Angle Properties	1: Calculating and Justifying Angle Measures 2: Calculating Angle Measures
					2: Establishing Congruence	3: Introduction to Proofs with Segments and Angles	3: Connecting Steps in Angle Proofs 4: Using Angle Theorems
						4: Lines Cut by a Transversal	1: Classifying Angles Formed by Transversals 2: Calculating Angles Formed by Transversals 3: Calculating Angles Formed by Multiple Transversals
						3: Parallel Lines Theorems	1: Proving Parallel Lines Theorems 2: Proving the Converses of Parallel Lines Theorems
G.GCO.9.a	measures of interior angles of a triangle sum to $180^\circ$	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	1: The Squariest Square: From Informal to Formal Geometric Thinking (M1-7A-M1-16A)			
			2: Composing and Decomposing Shapes	4: Tri- Tri- Tri and Separate Them: Conjectures About Triangles (M1-161A-M1-174A)	2: Establishing Congruence	8: Triangle Theorems	1: Proving Triangle Theorems 2: Using Triangle Theorems
		2: Establishing Congruence	2: Justifying Line and Angle Relationships	3: Ins and Outs: Interior and Exterior Angles of Polygons (M2-103A-M2-118A)			

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G.GCO.9.b	base angles of isosceles triangles are congruent	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	1: The Squariest Square: From Informal to Formal Geometric Thinking (M1-7A-M1-16A)	2: Establishing Congruence	7: Proving Triangles Congruent	4: Proving Theorems using Congruent Triangles
			2: Composing and Decomposing Shapes	1: Running Circles Around Geometry: Using Circles to Make Conjectures (M1-111A-M1-126A) 4: Tri- Tri- Tri and Separate Them: Conjectures About Triangles (M1-161A-M1-174A)			
		2: Establishing Congruence	2: Justifying Line and Angle Relationships	4: Identical Twins: Perpendicular Bisector and Isosceles Triangle Theorems (M2-119A-M2-140A)			
G.GCO.9.c	the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	4: Tri- Tri- Tri and Separate Them: Conjectures About Triangles (M1-161A-M1-174A)	3: Investigating Proportionality	1: Similar Triangles	3: Proofs Using Similar Triangles
		3: Investigating Proportionality	1: Similarity	3: Keep It in Proportion: Theorems About Proportionality (M3-37A-M3-64A)			
G.GCO.9.d	the medians of a triangle meet at a point.	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	5: What's the Point? : Points of Concurrency (M1-175A-M1-192A)			
G.GCO.10	Prove, and apply in mathematical and real-world contexts, theorems about parallelograms, including the following:	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	2: The Quad Squad: Conjectures About Quadrilaterals (M1-127A-M1-144A)	2: Establishing Congruence	1: Triangle Congruence	1: Introduction to Triangle Congruence
		2: Establishing Congruence	3: Using Congruence Theorems	2: Props to You: Properties of Quadrilaterals (M2-197A-M2-224A)			
G.GCO.10.a	opposite sides of a parallelogram are congruent	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	2: The Quad Squad: Conjectures About Quadrilaterals (M1-127A-M1-144A)			
		2: Establishing Congruence	3: Using Congruence Theorems	2: Props to You: Properties of Quadrilaterals (M2-197A-M2-224A)			

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G.GCO.10.b	opposite angles of a parallelogram are congruent;	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	2: The Quad Squad: Conjectures About Quadrilaterals (M1-127A-M1-144A)	2: Establishing Congruence	7: Proving Triangles Congruent	1: Proving Triangles Congruent Using SAS and SSS 2: Proving Triangles Congruent Using AAS and ASA 3: Proving Triangles Congruent Using HL and HA 4: Proving Theorems Using Congruent Triangles
		2: Establishing Congruence	3: Using Congruence Theorems	2: Props to You: Properties of Quadrilaterals (M2-197A-M2-224A)			
G.GCO.10.c	diagonals of a parallelogram bisect each other;	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	2: The Quad Squad: Conjectures About Quadrilaterals (M1-127A-M1-144A)	2: Establishing Congruence	8: Triangle Theorems	1: Proving Triangle Theorems 2: Using Triangle Theorems
		2: Establishing Congruence	3: Using Congruence Theorems	2: Props to You: Properties of Quadrilaterals (M2-197A-M2-224A)			
G.GCO.10.d	rectangles are parallelograms with congruent diagonals;	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	2: The Quad Squad: Conjectures About Quadrilaterals (M1-127A-M1-144A)	2: Establishing Congruence	8: Triangle Theorems	1: Proving Triangle Theorems 2: Using Triangle Theorems
		2: Establishing Congruence	3: Using Congruence Theorems	2: Props to You: Properties of Quadrilaterals (M2-197A-M2-224A)			
GCO.10.e	a parallelogram is a rhombus if and only if the diagonals are perpendicular	1: Analyzing Geometric Functions	2: Composing and Decomposing Shapes	2: The Quad Squad: Conjectures About Quadrilaterals (M1-127A-M1-144A)	2: Establishing Congruence	8: Triangle Theorems	1: Proving Triangle Theorems 2: Using Triangle Theorems
		2: Establishing Congruence	3: Using Congruence Theorems	2: Props to You: Properties of Quadrilaterals (M2-197A-M2-224A)			
G.GCO.11	Construct geometric figures using a variety of tools, including a compass, a straightedge, dynamic geometry software, and paper folding, and use these constructions to make conjectures about geometric relationships.	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	2: Hip to Be Square: Constructing a Coordinate Plane (M1-17A-M1-32A) 3: Ts and Train Tracks: Parallel and Perpendicular Lines (M1-33A-M1-50A)			
			2: Composing and Decomposing Shapes	3: Into the Ring: Constructing an Inscribed Regular Polygon (M1-145A-M1-160A)			

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G.GGMD.1	Explain the derivations of the formulas for the circumference of a circle, area of a circle, and volume of a cylinder, pyramid, and cone. Apply these formulas to solve mathematical and real-world problems	4: Connecting Geometric and Algebraic Descriptions	1: Circles and Volume	1: All Circles Great and Small: Similarity Relationships in Circles (M4-7A-M4-24A) 2: A Slice of Pi: Sectors and Segments of a Circle (M4-25A-M4-44A) 3: Do Me a Solid: Building Three Dimensional Figures (M4-45A-M4-64A) 4: Get to the Point: Building Volume Formulas (M4-65A-M4-88A)			
G.GGMD.2	Explain the derivation of the formulas for the volume of a sphere and other solid figures using Cavalieri's principle.	4: Connecting Geometric and Algebraic Descriptions	1: Circles and Volume	3: Do Me a Solid: Building Three Dimensional Figures (M4-45A-M4-64A)			
G.GGMD.3	Apply surface area and volume formulas for prisms, cylinders, pyramids, cones, and spheres to solve problems and justify results. Include problems that involve algebraic expressions, composite figures, geometric probability, and real-world applications.	4: Connecting Geometric and Algebraic Descriptions	1: Circles and Volume	4: Get to the Point: Building Volume Formulas (M4-65A-M4-88A)	4: Connecting Geometric and Algebraic Descriptions	2: Volume	2: Calculating Volume of Right Prisms 3: Using Volume of Right Prisms 4: Calculating Volume of Cylinders 5: Using Volume of Cylinders 6: Calculating Volume of Pyramids 7: Using Volume of Pyramids 8: Calculating Volume of Cones 9: Using Volume of Cones 10: Calculating Volume of Spheres 11: Using Volume of Spheres
					4: Connecting Geometric and Algebraic Descriptions	3: Surface Area	1: Calculating Surface Area of Right Prisms



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G.GGMD.4	Describe the shapes of two-dimensional cross-sections of three-dimensional objects and use those cross-sections to solve mathematical and real-world problems.	4: Connecting Geometric and Algebraic Descriptions	1: Circles and Volume	3: Do Me a Solid: Building Three Dimensional Figures (M4-45A-M4-64A)	4: Connecting Geometric and Algebraic Descriptions	2: Volume	1: Creating Three-Dimensional Shapes from Two-Dimensional Figures
			2: Conic Sections	1: Any Way You Slice It: Cross-Sections (M4-101A-M4-118A)	4: Connecting Geometric and Algebraic Descriptions	4: Visualizing Cross-Sections of Three-Dimensional Shapes	1: Visualizing Cross Sections of Three-Dimensional Shapes
G.GGPE.1	Understand that the standard equation of a circle is derived from the definition of a circle and the distance formula.	4: Connecting Geometric and Algebraic Descriptions	2: Conic Sections	2: $X^2 + Y^2$ Equals Radius <sup>2</sup> : Deriving the Equation for a Circle (M4-119A-M4-132A) 3: A Blip on the Radar: Determining Points on a Circle (M4-133A-M4-148A)	4: Connecting Geometric and Algebraic Descriptions	5: Equation of a Circle	1: Deriving the Equation of a Circle 2: Determining the Radius and Center of a Circle
G. GGPE.2	Use the geometric definition of a parabola to derive its equation given the focus and directrix	4: Connecting Geometric and Algebraic Descriptions	2: Conic Sections	5: Going the Equidistance: Equation of a Parabola (M4-159A-M4-186A)			
G. GGPE.3	Use the geometric definition of an ellipse and of a hyperbola to derive the equation of each given the foci and points whose sum or difference of distance from the foci are constant.	4: Connecting Geometric and Algebraic Descriptions	2: Conic Sections	6: It's a Stretch: Ellipses (M4-187A-M4-210A) 7: More Asymptotes: Hyperbolas (M4-211A-M4-228A)			
G. GGPE.4	Use coordinates to prove simple geometric theorems algebraically.	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	4: Where Has Polly Gone?: Classifying Shapes on the Coordinate Plane (M1-51A-M1-68A)			
		4: Connecting Geometric and Algebraic Descriptions	2: Conic Sections	3: A Blip on the Radar: Determining Points on a Circle (M4-133A-M4-148A)			

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G.GGPE.5	Analyze slopes of lines to determine whether lines are parallel, perpendicular, or neither. Write the equation of a line passing through a given point that is parallel or perpendicular to a given line. Solve geometric and real-world problems involving lines and slope.	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	3: Ts and Train Tracks: Parallel and Perpendicular Lines (M1-33A-M1-50A) 4: Where Has Polly Gone?: Classifying Shapes on the Coordinate Plane (M1-51A-M1-68A) 5: In and Out and All About: Area and Perimeter on the Coordinate Plane (M1-69A-M1-96A)	1: Reasoning with Shapes	2: Parallel and Perpendicular Lines	1: Introduction to Parallel and Perpendicular Lines 2: Modeling Parallel and Perpendicular Lines
G.GGPE.6	Given two points, find the point on the line segment between the two points that divides the segment into a given ratio.	3: Investigating Proportionality	1: Similarity	6: Jack's Spare Key: Partitioning Segments into Given Ratios (M3-95A-M3-108A)	3: Investigating Proportionality	1: Similar Triangles	4: Partitioning Segments Proportionately
G.GGPE.7	Use the distance and midpoint formulas to determine distance and midpoint in a coordinate plane, as well as areas of triangles and rectangles, when given coordinates.	1: Analyzing Geometric Functions	1: Using a Rectangular Coordinate System	5: In and Out and All About: Area and Perimeter on the Coordinate Plane (M1-69A-M1-96A)	1: Reasoning with Shapes	3: Distances on the Coordinate Plane	1: Deriving the Distance Formula 2: Calculating Distances using the Distance Formula 3: Calculating Perimeter and Area using the Distance Formula
G.GM.1	Use geometric shapes, their measures, and their properties to describe real-world objects.	4: Connecting Geometric and Algebraic Descriptions	1: Circles and Volume	1: All Circles Great and Small: Similarity Relationships in Circles (M4-7A-M4-24A) 2: A Slice of Pi: Sectors and Segments of a Circle (M4-25A-M4-44A) 3: Do Me a Solid: Building Three Dimensional Figures (M4-45A-M4-64A) 4: Get to the Point: Building Volume Formulas (M4-65A-M4-88A)			
G.GM.2	Use geometry concepts and methods to model real-world situations and solve problems using a model.	3: Investigating Proportionality	3: Circles and Volume	4: Get to the Point: Building Volume Formulas (M4-65A-M4-88A)			

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G.GSRT.1	Understand a dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged. Verify experimentally the properties of dilations given by a center and a scale factor. Understand the dilation of a line segment is longer or shorter in the ratio given by the scale factor.	3: Investigating Proportionality	1: Similarity	1: Big, Little, Big, Little: Dilating Figures to Create Similar Figures (M3-7A-M3-22A)  3: Keep It in Proportion: Theorems About Proportionality (M3-37A-M3-64A)			
G.GSRT.2	Use the definition of similarity to decide if figures are similar and justify decision. Demonstrate that two figures are similar by identifying a combination of translations, rotations, reflections, and dilations in various representations that move one figure onto the other.	3: Investigating Proportionality	1: Similarity	1: Big, Little, Big, Little: Dilating Figures to Create Similar Figures (M3-7A-M3-22A)  2: Similar Triangles or Not? : Establishing Triangle Similarity Criteria (M3-23A-M3-36A)	3: Investigating Proportionality	1: Similar Triangles	1: Understanding Similarity
G.GSRT.3	Prove that two triangles are similar using the Angle-Angle criterion and apply the proportionality of corresponding sides to solve problems and justify results.	3: Investigating Proportionality	1: Similarity	4: This Isn't Your Average Mean: More Similar Triangles (M3-65A-M3-78A)			

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G.GSRT.4	Prove, and apply in mathematical and real-world contexts, theorems involving similarity about triangles, including the following:	3: Investigating Proportionality	1: Similarity	2: Similar Triangles or Not? : Establishing Triangle Similarity Criteria (M3-23A-M3-36A)  4: This Isn't Your Average Mean: More Similar Triangles (M3-65A-M3-78A)	3: Investigating Proportionality	1: Similar Triangles	3: Proofs Using Similar Triangles
G.GSRT.4.a	A line drawn parallel to one side of a triangle divides the other two sides into parts of equal proportion	3: Investigating Proportionality	1: Similarity	3: Keep It in Proportion: Theorems About Proportionality (M3-37A-M3-64A)			
G.GSRT.4.b	If a line divides two sides of a triangle proportionally, then it is parallel to the third side.	3: Investigating Proportionality	1: Similarity	3: Keep It in Proportion: Theorems About Proportionality (M3-37A-M3-64A)			
G.GSRT.4.c	The square of the hypotenuse of a right triangle is equal to the sum of squares of the other two sides.	3: Investigating Proportionality	1: Similarity	4: This Isn't Your Average Mean: More Similar Triangles (M3-65A-M3-78A)			
G.GSRT.5	Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	3: Investigating Proportionality	1: Similarity	5: Run It Up the Flagpole: Applications of Similar Triangles (M3-79A-M3-94A)	3: Investigating Proportionality	1: Similar Triangles	2: Calculating Corresponding Parts of Similar Triangles
G.GSRT.6	Understand how the properties of similar right triangles allow the trigonometric ratios to be defined and determine the sine, cosine, and tangent of an acute angle in a right triangle.	3: Investigating Proportionality	2: Trigonometry	1: Three Angle Measure: Introduction to Trigonometry (M3-121A-M3-136A)  2: The Tangent Ratio: Tangent Ratio, Cotangent Ratio, and Inverse Tangent (M3-137-M3-154)  3: The Sine Ratio: Sine Ratio, Cosecant Ratio, and Inverse Sine (M3-155A-M3-170A)  4: The Cosine Ratio: Cosine Ratio, Secant Ratio, and Inverse Cosine (M3-170A-M3-186A)	3: Investigating Proportionality	2: Trigonometric Ratios	1: Introduction to Trigonometric Ratios

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G.GSRT.7	Explain and use the relationship between the sine and cosine of complementary angles.	3: Investigating Proportionality	2: Trigonometry	5: We Complement Each Other: Complement Angle Relationships (M3-187A-M3-198A)	3: Investigating Proportionality	3: Trigonometric Ratios	2: Relating Sines and Cosines of Complementary Angles
GSRT.8	Solve right triangles in applied problems using trigonometric ratios and the Pythagorean Theorem.	3: Investigating Proportionality	2: Trigonometry	2: The Tangent Ratio: Tangent Ratio, Cotangent Ratio, and Inverse Tangent (M3-137A-M3-154A) 3: The Sine Ratio: Sine Ratio, Coscant Ratio, and Inverse Sine (M3-155A-M3-170A) 4: The Cosine Ratio: Cosine Ratio, Secant Ratio, and Inverse Cosine (M3-170A-M3-186A)	3: Investigating Proportionality	3: Right Triangles and Trigonometric Ratios	1: Using One Trigonometric Ratio to Solve Problems 2: Using Multiple Trigonometric Ratios to Solve Problems
G.GSRT.9	Derive the formula $a = \frac{1}{2} ab \sin C$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side	3: Investigating Proportionality	2: Trigonometry	6: A Deriving Force: Deriving the Triangle Area Formula, Law of Sines, and the Law of Cosines (M3-199A-M3-212A)			
G.GSRT.10	Prove the Laws of Sines and Cosines and use them to solve problems.	3: Investigating Proportionality	2: Trigonometry	6: A Deriving Force: Deriving the Triangle Area Formula, Law of Sines, and the Law of Cosines (M3-199A-M3-212A)			
GSRT.11	Use the Law of Sines and the Law of Cosines to solve for unknown measures of sides and angles of triangles that arise in mathematical and real-world problems.	3: Investigating Proportionality	2: Trigonometry	6: A Deriving Force: Deriving the Triangle Area Formula, Law of Sines, and the Law of Cosines (M3-199A-M3-212A)			
G.SPID.1	Select and create an appropriate display, including dot plots, histograms, and box plots, for data that includes only real numbers.	5: Describing Distributions	1: One-Variable Statistics	1: Way to Represent!: Graphically Representing Data (M5-7A-M5-16A) 2: A Skewed Reality: Determining the Better Measure of Spread for a Data Set (M5-17A-M5-34A) 3: Dare to Compare: Comparing Data Sets (M5-35A-M5-44A)	(Algebra I) 4: Describing Distributions	1: Numerical Summary Statistics	3: Comparing and Interpreting Measures of Center

SCCCR	Description	Textbook Module	Textbook Topic	Textbook Lesson	MATHia Module	MATHia Unit	MATHia Workspace
G.SPID.2	Use statistics appropriate to the shape of the data distribution to compare center and spread of two or more different data sets that include all real numbers	5: Describing Distributions	1: One-Variable Statistics	1: Way to Represent!: Graphically Representing Data (M5-7-M5-16) 2: A Skewed Reality: Determining the Better Measure of Spread for a Data Set (M5-17A-M5-34A) 3: Dare to Compare: Comparing Data Sets (M5-35A-M5-44A)	(Algebra I) 4: Describing Distributions	1: Numerical Summary Statistics	1: Determining Appropriate Measures 3: Comparing and Interpreting Measures of Center 4: Calculating Standard Deviation
G.SPID.3	Summarize and represent data from a single data set. Interpret differences in shape, center, and spread in the context of the data set, accounting for possible effects of extreme data points (outliers).	5: Describing Distributions	1: One-Variable Statistics	2: A Skewed Reality: Determining the Better Measure of Spread for a Data Set (M5-17A-M5-34A) 3: Dare to Compare: Comparing Data Sets (M5-35A-M5-44A)	(Algebra I) 4: Describing Distributions	1: Numerical Summary Statistics	2: Measuring Effects of Changing Data Sets 3: Comparing and Interpreting Measures of Center