

# Independent School District of Boise City

## Geometry

### District Course #0821

#### Course Description

Open to: Grades 10, 11, 12 One Year Course

Prerequisite: C or better in Algebra 1, or pass Intermediate Algebra 1, Instructor/Counselor approval

Content: Students will use an integrated approach to concepts of algebra, geometry, and logic with emphasis on geometry.

#### Adopted Materials

Title: Geometry

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#### Course Scope

Unit 1	Points, Lines, Planes & Angles	2 Weeks
Unit 2	Reasoning & Proof	2½ Weeks
Unit 3	Parallel & Perpendicular Lines	3 Weeks
Unit 4	Congruent Triangles	3½ Weeks
Unit 5	Relationships in Triangles	2 Weeks
Unit 6	Proportions & Similarity	2 Weeks
Unit 7	Right Triangles & Trig	4½ Weeks
Unit 8	Quadrilaterals	2-3 Weeks
Unit 9	Transformations	2 Weeks
Unit 10	Circles	3 Weeks
Unit 11	Areas of Polygons & Circles	2 Weeks
Unit 12	Surface Area	2 Weeks
Unit 13	Volume	2 Weeks

<b>Geometry</b>		<b>District Reference</b> 0821
<b>Unit 1</b>	<b>Points, Lines, Planes &amp; Angles</b>	<b>2 weeks</b>

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.01 Use calculation and measurement with relationship to points, lines, and shapes within a plane.		G.4.1.1a,b,f, G.4.4.1a, G.4.2.1a,b	
<b>No.</b>	<b>Performance Objective</b>	<b>Resource Reference</b>	<b>Assessment Correlation</b>
01	Describe the relationships between points, lines and planes.	p. 8, 22	TMA
02	Classify angles according to their degree measure.	p. 30	TMA, EOC

03	Find numerical unknowns related to the coordinate plane (e.g., distance, midpoint).	pp. 21, 22,	TMA, EOC
04	Measure segments and angles with precision	p. 13, 29	TO, TMA
05	Construct, using a straightedge and compass, a two-dimensional figure from a set of instructions.	p. 15, 31, 33	TO, TMA, EOC
06	Identify special angle relationships (linear pair, vertical, complementary, supplementary).	p. 37, 39	TMA, EOC

<b>Geometry</b>		<b>District Reference</b> 0821
<b>Unit 2</b>	<b>Reasoning &amp; Proof</b>	<b>2 ½ weeks</b>

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.02 Understand and use a variety of reasoning and problem solving skills.		G.4.1.3a,b,c, G.2.2.2a,b	
No.	Performance Objective	Resource Reference	Assessment Correlation
01	Apply deductive reasoning.	p. 62, 82	EOC, TMA
02	Define and apply terms associated with mathematical logic and reasoning (e.g. hypotheses, conclusion, conditional, counterexample).	p. 62, 67,68, 75, 81, 83, 89.	EOC, TMA
03	Use properties from algebra and geometry to begin developing formal proofs.	p. 94	TO, TMA

<b>Geometry</b>		<b>District Reference</b> 0821
<b>Unit 3</b>	<b>Parallel &amp; Perpendicular Lines</b>	<b>3 weeks</b>

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.03 Understand and apply the relationships between parallel and perpendicular lines.		G.3.1.1a,b, G.3.2.1a, G.4.1.1d, G.4.1.3a, G.2.2.2c, G.4.1.2a,b,c	
No.	Performance Objective	Resource Reference	Assessment Correlation
01	Compare the slopes of parallel and perpendicular lines.	p. 139-141	EOC, TMA
02	Find equations of lines.	p. 145-147	EOC, TMA
03	Define and apply terms associated with mathematical logic and reasoning.	p. 151-153	EOC, TMA
04	Read and write a two-column proof and identify statements that do not logically follow from the preceding statements.	p. 151-153	EOC, TMA
05	Solve for missing angles in problems involving parallel lines cut by a transversal.	p. 126-128	ECO, TMA
06	Prove that two lines are parallel.	p. 151-153	EOC, TMA

<b>Geometry</b>		<b>District Reference</b> 0821
<b>Unit 4</b>	<b>Congruent Triangles</b>	<b>3 ½ weeks</b>

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.04 Describe, classify and prove relationships between triangles.		G.2.2.2a,b, G.4.1.1d,f,g,i,, G.4.1.2a, G.4.1.3c	
<b>No.</b>	<b>Performance Objective</b>	<b>Resource Reference</b>	<b>Assessment Correlation</b>
01	Identify and classify triangles by their angle measure and side lengths. (e.g., acute, obtuse, right, scalene, isosceles, equilateral.)	p. 178-179, 216-218	EOC, TMA
02	Find angles related to triangles-interior/exterior.	p. 186	EOC, TMA
03	Describe and apply the congruence relationships for triangles (e.g., SSS, SAS, ASA, AAS, HL.)	p. 192-194, 200-202, 207-209	EOC, TMA
04	Use CPCTC in congruence relationships.	pp. 192-194	EOC, TMA

<b>Geometry</b>		<b>District Reference</b> 0821
<b>Unit 5</b>	<b>Relationships in Triangles</b>	<b>2 weeks</b>

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.05 Described and classify special segments in triangles; apply inequalities to angles and sides of triangles.		G.4.4.1a	
<b>No.</b>	<b>Performance Objective</b>	<b>Resource Reference</b>	<b>Assessment Correlation</b>
01	Identify parts of triangles. (e.g. hypotenuse, angle bisector, altitude, perpendicular bisector, median, incenter, orthocenter, circumcenter, centroid.)	p. 236-246	EOC, TMA
02	Use the triangle inequality theorem to solve problems involving triangles.	p. 261-263, 267-270	EOC, TMA
03	Recognize and apply properties of inequalities to the relationships between angles and sides of a triangle.	p.247-250	EOC, TMA

<b>Geometry</b>		<b>District Reference</b> 0821
<b>Unit 6</b>	<b>Proportions &amp; Similarity</b>	<b>2 weeks</b>

<b>Instructional Objective</b>		<b>Standard Reference</b>	
821.06 Apply proportions in similar figures to solve problems.		G.4.1.2a,b,c, G.2.1.1b	
<b>No.</b>	<b>Performance Objective</b>	<b>Resource Reference</b>	<b>Assessment Correlation</b>
01	Use ratios and proportions to solve problems.	p. 282-284	EOC, TMA

02	Prove triangles are similar. (e.g., AA~, SSS~, SAS~)	p. 298-300	EOC, TMA
03	Apply ratios and proportions to solve problems involving similar figures.	p. 307-310, 316-317	EOC, TMA
04	Know and apply the properties of a midsegment.	p. 306	EOC, TMA

<b>Geometry</b>		<b>District Reference</b> 0821
<b>Unit 7</b>	<b>Right Triangles &amp; Trig</b>	<b>4½ weeks</b>

<b>Instructional Objective</b> 0821.07 Apply the geometry of right triangles.		<b>Standard Reference</b> G.2.2.2d, G.4.1.2c,d, G.4.1.4a,b,c	
No.	Performance Objective	Resource Reference	Assessment Correlation
01	Understand the basic concepts of right triangle trigonometry; basic trigonometry ratios of sine, cosine and tangent.	p. 371-373,	EOC, TMA
02	Solve for parts of right triangles using the geometric mean.	p. 342-344	EOC, TMA
03	Use the Pythagorean Theorem and its converse to find missing side lengths and determine whether a triangle is acute, right, or obtuse.	p. 350-353	EOC, TMA
04	Find missing side lengths and angles of special right triangles.	p. 357-360	EOC, TMA
05	Use trigonometric ratios to solve for side lengths and angles.	p. 364-367	EOC, TMA

<b>Geometry</b>		<b>District Reference</b> 0821
<b>Unit 8</b>	<b>Quadrilaterals</b>	<b>2-3 weeks</b>

<b>Instructional Objective</b> 0821.08 Apply properties of quadrilaterals to solve problems.		<b>Standard Reference</b> G.2.2.2c,h,I, G.2.2.1b, G.4.1.1d,h,I, G.4.1.3b	
No.	Performance Objective	Resource Reference	Assessment Correlation
01	Identify, name and classify polygons.	p.	EOC, TMA
02	Find the angles of a polygon and the sum of interior and exterior angles of a polygon.	p. 404-406	EOC, TMA
03	Use properties of parallelograms to solve problems in geometry.	p. 411-414	EOC, TMA
04	Identify and use properties of special parallelograms.	p. 424-427, 431-433,	EOC, TMA
05	Identify and use properties of trapezoids.	p. 439-441	EOC, TMA

06	Prove that quadrilaterals are parallelograms.	p. 417-420	
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<b>Geometry</b>		<b>District Reference</b> 0821	
<b>Unit 9</b>	<b>Transformations</b>	<b>2 weeks</b>	

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.09 Use coordinate geometry to solve problems involving transformations.		G.4.1.2b, G.4.3.1a	
No.	Performance Objective	Resource Reference	Assessment Correlation
01	Identify the result of a specific transformation or kind of transformation used to create a given result.	p.463-466, 470-472, 476-478	EOC, TMA
02	Relate line symmetry to reflections.	p. 466	EOC, TMA
03	Relate rotational symmetry and rotations.	p. 478	EOC, TMA
04	Find magnitudes and directions of vectors.	p. 498-502	EOC, TMA

<b>Geometry</b>		<b>District Reference</b> 0821	
<b>Unit 10</b>	<b>Circles</b>	<b>3 ½ weeks</b>	

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.10 Identify the parts of a circle and calculate measurements of them.		G.2.1.1a, G.2.2.1a, G.2.2.2e,f, G.1.1.1a,b,c, G.1.3.1a,b, G.4.1.1e	
No.	Performance Objective	Resource Reference	Assessment Correlation
01	Use vocabulary associated with circles.	p. 522-524	EOC, TMA
02	Find angles and arcs related to circles and segment lengths formed inside and outside circles. (e.g., central and inscribed angles, and angles formed by chords, secants, tangents)	p. 529-531, 536-539, 544-548, 552-555, 561-563, 569-571	EOC, TMA
03	Develop the equation of a circle from given information and identify the center and radius of a circle equation.	p. 575-577	EOC, TMA
04	Find the circumference of circles and arc lengths.	p. 523, 530	EOC, TMA

<b>Geometry</b>		<b>District Reference</b> 0821	
<b>Unit 11</b>	<b>Areas of Polygons &amp; Circles</b>	<b>2 weeks</b>	

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.11 Use formulas to determine planar measurements of polygons and circles.		G.1.1.1a,b,c, G.2.2.1a,b,c, G.2.1.1a,b, G.4.2.1a,b, G.4.1.2a,b	
<b>No.</b>	<b>Performance Objective</b>	<b>Resource Reference</b>	<b>Assessment Correlation</b>
01	Find areas and perimeters of polygons.	p. 595-597, 601-604, 610-612	EOC, TMA
02	Calculate the area of circles, sectors and segments of circles.	p. 610-612, 623-624	EOC, TMA
03	Determine how changes in dimensions affect the perimeter and area of geometric figures.	p. 617-618	EOC, TMA

<b>Geometry</b>		<b>District Reference</b>
		0821
<b>Unit 12</b>	<b>Surface Area</b>	<b>2 weeks</b>

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.12 Perform calculations for lateral area and surface area of three-dimensional figures.		G.2.1.1a,b,c, G.2.1.1a	
<b>No.</b>	<b>Performance Objective</b>	<b>Resource Reference</b>	<b>Assessment Correlation</b>
01	Identify three-dimensional figures and their parts. (e.g., face, edge, vertex)	p. 636-639	EOC, TMA
02	Calculate the surface area of three-dimensional objects.	p.644, 649-651, 655-656, 640-662, 666-667, 671-673	EOC, TMA

<b>Geometry</b>		<b>District Reference</b>
		0821
<b>Unit 13</b>	<b>Volume</b>	<b>2 weeks</b>

<b>Instructional Objective</b>		<b>Standard Reference</b>	
0821.12 Perform calculations for volume of three-dimensional figures.		G.2.1.1a,b, G.2.2.1a,b,c, G.4.1.2b	
<b>No.</b>	<b>Performance Objective</b>	<b>Resource Reference</b>	<b>Assessment Correlation</b>
01	Calculate the volume of three-dimensional objects.	p. 688-690, 696-698, 702-703	EOC, TMA
02	Determine how changes in dimensions affect the surface area and volume of three-dimensional figures.	p. 711	EOC, TMA

**IDAHO CONTENT STANDARDS  
GEOMETRY  
MATHEMATICS**

**Students are expected to know content and apply skills from Algebra I and prior math courses.**

Mathematical reasoning and problem solving processes will be incorporated throughout all mathematics standards. When solving problems, students should think ahead about a strategy, form conjectures, test ideas with special cases, try different approaches, check for errors and reasonableness of solutions as a regular part of routine work, and devise independent ways to verify results. Students will demonstrate knowledge and communicate mathematical thinking through words, numbers, symbols, charts, graphs, tables, diagrams, and models.

**Maintenance Concepts** should have been taught previously and are important foundational concepts that will be applied in this course. Continued facility with and understanding of the Maintenance Concepts is essential for success in the objectives for this course.

**Objectives** provide the focus for this course. They will be taught using a variety of methods and applications so that students attain a deep understanding of these concepts and are able to apply them to solve contextual situations.

**Skill Statements** are provided when appropriate for clarity and direction to achieve each objective. Students need to demonstrate proficiency in these skills upon completion of this course.

The appropriate use of technological tools is encouraged to assist students in the formation and testing of conjectures, creating graphs and data displays, and determining and assessing lines of best fit for data.

**Standard 1: Number and Operation**

**Maintenance Concepts for Standard 1**

- Use ratios, including  $\pi$ , and proportions to solve problems.
- Classify real numbers as rational or irrational.
- Distinguish between exact and approximate values of irrational numbers.
- Approximate the location of an irrational number on a number line.
- Use appropriate methods to estimate answers and know if they are reasonable.
- Select a suitable method of computing from mental mathematics, paper and pencil, calculators, or computers.
- Simplify square roots containing radicands which are not perfect squares.
- Find exact and approximate values for square roots.

**Goal 1.1: Understand numbers, ways of representing numbers, relationships among numbers, and number system.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.1.1.1 Understand the meanings of real numbers.

Skill Statements:

- a. Define and explain the meaning of  $\pi$ .
- b. Recognize  $\pi$  as an irrational number.
- c. Use 3.14 and/or  $\frac{22}{7}$  as an approximation for  $\pi$ .

**Goal 1.2: Understand meanings of operations and how they relate to one another.**

No objectives at this course level.

**Goal 1.3: Compute fluently and make reasonable estimates.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.1.3.1 Judge the reasonableness of numerical computations and their results.

Skill Statements:

- a. Use appropriate methods to estimate answers and know if they are reasonable.
- b. Simplify expressions in terms of  $\pi$ .

<u>Suggested Vocabulary and Symbols</u>
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$\pi$ , radical, irrational
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**Standard 2: Concepts and Principles of Measurement**

**Maintenance Concepts for Standard 2**

- Understand both metric and customary systems of measurement.
- Understand relationships among units and convert from one unit to another.
- Understand, select, and use units of appropriate size and type to measure angles, perimeter, area, surface area, and volume.
- Use appropriate methods and units to estimate measurements.
- Select and apply techniques and tools to accurately find length, area, volume, and angle measures to appropriate levels of precision.
- Select and use formulas to determine the circumference and area of circles, perimeters and areas of triangles and quadrilaterals.
- Develop strategies to determine the areas of irregular shapes.
- Solve problems involving scale factors, rates, ratios, and proportions.

**Goal 2.1: Understand measurable attributes of objects and the units, systems, and processes of measurement.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.2.1.1 Select appropriate units for problems involving measurement.

Skill Statement:

- a. Determine appropriate units for distance, angle measure, area, and volume.
- b. Judge the effects of scale factors on length, area, and volume.

**Goal 2.2: Apply appropriate techniques, tools, and formulas to determine measurements.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.2.2.1 Understand and use formulas to calculate the perimeter, circumference, area, surface area, and volume of geometric figures.

Skill Statements:

- a. Determine the circumference, area, and area of a sector of a circle.
- b. Determine the perimeter and area of triangles, parallelograms, and other regular polygons.
- c. Determine the surface area and volume of prisms, cylinders, pyramids, cones, and spheres.

G.2.2.2 Understand and apply definitions, theorems, corollaries, and postulates to determine measurement.

Skill Statements:

- a. Apply the segment addition postulate to determine lengths of segments.
- b. Apply the angle addition postulate to determine the measures of angles.
- c. Determine the measures of angles in relation to adjacent, complementary, supplementary, vertical, linear pairs, and the special angle pairs formed by parallel lines and transversals.
- d. Understand and apply the Pythagorean Theorem for problem solving.
- e. Determine the lengths and measures of arcs of a circle.
- f. Determine the lengths of segments and measure of angles formed by radii, chords, secants, and tangents of circles.
- g. Determine the measures of inscribed and central angles and their corresponding intercept arcs.
- h. Determine the sums of the interior and exterior angles of a polygon.
- i. Determine the measure of each interior and exterior angle of a regular polygon.

### Suggested Vocabulary and Symbols

apothem, base of a polygon, cone, circumference, cylinder, diameter, face, lateral area, prism, pyramid, regular polygon, radii, semicircle, sphere, altitude, arc length, axioms, postulates, central angle, chord, common tangent, consecutive interior angles or same side interior angles, corollary, diagonal, exterior angle, interior angle, hemisphere, hypotenuse, inscribed angle, intercepted arc, legs of a right triangle, legs of a trapezoid, linear pair, segment notation, major arc, minor arc, point of tangency, Pythagorean triple, Pythagorean Theorem, secant line, tangent line, secant segment, sector of a circle, vertex

## **Standard 3: Concepts and Language of Algebra and Functions**

### **Maintenance Concepts for Standard 3**

- Define and interpret relations and functions numerically, graphically, and algebraically.
- Write equations and inequalities to represent data.
- Solve multi-step linear equations and inequalities.
- Add, subtract, and multiply polynomials.
- Divide a polynomial by a monomial.
- Factor polynomials including using greatest common factor.
- Write the equation or inequality in slope-intercept, point-slope, and standard form.
- Graph linear equations.
- Interpret the solution in light of the context.
- Evaluate the equation or inequality for a given value.
- Create a table of values.
- Find and interpret the slope (rate of change) and intercepts in relation to the context.
- Solve linear systems of equations and inequalities involving two variables using multiple strategies.

### **Goal 3.1: Understand patterns, relations, and functions.**

#### **Objective(s): By the end of Geometry, the student will be able to:**

- G.3.1.1 Describe the graphs of linear functions and discuss their appearances in terms of the basic concepts of intercepts and rate of change.

#### **Skill Statements:**

- a. Given the equation of a line, determine the slopes of the lines parallel and perpendicular to the given line.
- b. Given the equation of a line, graph the lines parallel and perpendicular to it through a given point.

### **Goal 3.2: Represent and analyze mathematical situations and structures using algebraic symbols.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.3.2.1 Represent linear patterns and relationships with an equation.

Skill Statements:

- a. Write equations of parallel and perpendicular lines.

**Goal 3.3: Use mathematical models to represent and understand quantitative relationships.**

No objectives at this course level.

**Goal 3.4: Analyze change in various contexts.**

No objectives at this course level.

#### **Standard 4: Concepts and Principles of Geometry**

##### **Maintenance Concepts for Standard 4**

- Know and apply algebraic properties (commutative, associative, distributive, inverse, identity, multiplicative property of zero, properties of equality).
- Develop proportional relationships to solve problems.
- Describe and classify relationships among types of one-, two-, and three-dimensional geometric figures using their defining properties.
- Draw and measure various angles and shapes using appropriate tools.

**Goal 4.1 Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.4.1.1 Analyze properties and determine attributes of two- and three-dimensional objects.

Skill Statements:

- a. Apply the fundamental concepts, properties, and relationships among points, lines, rays, planes, and angles.
- b. Use accepted geometric notation for lines, planes, segments, rays, angles, similarity and congruence.
- c. Identify and determine relationships in adjacent, complementary, supplementary, and vertical angles, and in linear pairs.
- d. Identify and use the special angle pairs formed by parallel lines and a transversal.
- e. Identify the parts of a circle including radius, diameter, major/minor arcs, chords, secants and tangents.
- f. Classify angles by their measure (acute, right, obtuse, straight).

- g. Classify triangles by side and angle (acute, right, obtuse, scalene, isosceles, equilateral, equiangular).
- h. Classify quadrilaterals by their attributes (parallelograms, trapezoids, rectangles, rhombi, squares).
- i. Classify polygons by sides and concavity.

G.4.1.2 Explore congruence and similarity among classes of two dimensional objects and solve problems involving them.

Skill Statements:

- a. Identify and apply congruency and similarity in two-dimensional figures.
- b. Identify the scale factor between two similar figures and use it to find missing lengths.
- c. Solve problems involving geometric mean.

G.4.1.3 Establish the validity of geometric conjectures.

Skill Statements:

- a. Construct logical arguments, form conjectures, judge their validity, and give counterexamples to disprove statements.
- b. Informally or formally prove lines are parallel or perpendicular using special angle pair theorems.
- c. Informally or formally prove triangles are congruent using SSS, SAS, ASA and AAS.

Students should see the power of deductive proof in establishing the validity of general results from given conditions. Students should explore ideas, develop conjectures, and test counterexamples in order to effectively produce and present logical arguments with emphasis on careful explanation of the reasoning, rather than on the form of proof used (e.g., paragraph proof or two-column proof).

G.4.1.4 Apply trigonometric relationships to determine lengths and angle measures.

Skill Statements:

- a. Identify and apply special right triangle relationships (30-60-90 and 45-45-90) to determine the lengths of the sides of a triangle.
- b. Relate similarity of right triangles to the trigonometric functions.
- c. Identify sine, cosine and tangent ratios in right triangles and use them to model contextual problems.

**Goal 4.2 Specify locations and describe spatial relationships using coordinate geometry and other representational systems.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.4.2.1 Use Cartesian coordinates to analyze geometric situations.

Skill Statements:

- a. Determine the midpoint of a segment in the coordinate plane.
- b. Given two endpoints of a segment in a coordinate plane, determine the length of the segment using the distance formula.

**Goal 4.3: Apply transformations and use symmetry to analyze mathematical situations.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.4.3.1 Understand and represent translations, reflections, dilations, and rotations of objects in the plane.

Skill Statement:

- a. Use transformational geometry to rotate, translate, dilate, and reflect two-dimensional figures.

**Goal 4.4: Use visualization, spatial reasoning, and geometric models to solve problems.**

**Objective(s): By the end of Geometry, the student will be able to:**

G.4.4.1 Draw and construct representations of two dimensional geometric objects using a variety of tools.

Skill Statement:

- a. Identify and construct medians, altitudes, angle bisectors, and perpendicular bisectors using straightedge and compass.

#### Suggested Vocabulary and Symbols

acute triangle, adjacent angles, adjacent sides, alternate interior, alternate exterior angles, angle bisector, angle of elevation, angle of depression, axioms, postulates, base angles of an isosceles triangle, base angles of an isosceles trapezoid, bisect, collinear, compass, concave polygon, concentric circles, conclusion, hypothesis, conditional statement, congruent, conjecture, consecutive interior angles or same side interior angles, construction, convex polygon, coplanar, corollary, corresponding angles, cosine, sine, tangent, diagonal, dilation, distance formula, exterior angle, interior angle, geometric mean, image, inductive and deductive reasoning, inscribed polygon, legs of an isosceles triangle, line of reflection, perpendicular, segment notation, major arc, minor arc, median of a triangle, midpoint, midpoint formula, midsegment of a trapezoid, net, parallel, perpendicular bisector, pre-image, reflection, rotation, scale factor, scalene triangle, similar, skew, special right triangles, transformation, translation, transversal, trigonometric ratio, two-column proof, vertex

#### **Standard 5: Data Analysis, Probability, and Statistics**

No objectives at this course level.