Guthrie Public Schools – Course Pacing Guide: Geometry

2019 – 2020

Math Practices	**Online Resources**
The Oklahoma Academic Standards for Mathematics are developed around four main content strands, Algebraic Reasoning and Algebra, Number and Operations, Geometry and Measurement, and Data and Probability organize the content standards throughout PK-7 and Pre-Algebra. The standards for Algebra I, Algebra II, and Geometry are fundamentally organized around these strands as well. The process standards are defined as the Mathematical Actions and Processes and are comprised of the skills and abilities students should develop and be engaged in throughout their PK-12 mathematics education. Among these are the ability to problem solve, communicate, and reason about mathematics which will help students be ready for the mathematics expectations of college and the skills desired by many employers. While the process and content standards work in concert to create clear, concise, and rigorous mathematics standards and expectations for Oklahoma students with the aim of helping them be college and career ready, it is not intended that each mathematical action and process will be utilized or developed with each standard. Certainly some standards and objectives can be achieved more readily with particular mathematics actions and processes.	Dan Meyer's Ted Talk about teaching math: https://youtu.be/qocAoN4jNwc Links to his 3-act activities, sorted by standard: https://docs.google.com/spreadsheet/ccc?key=0AjIqyKM9d7ZYdEhtR3BJMmdBWnM2YWxWYVM1UWowTEE#gid=0 Oklahoma Academic Vocabulary: http://sde.ok.gov/sde/building-academic-vocabulary#Math
For more:	**Other online resources**
Elaboration on each practice from the Oklahoma State Education website: http://sde.ok.gov/sde/sites/ok.gov.sde/files/OAS-Math-Final%20Version_3.pdf https://www.act.org/content/act/en/college-and-career-readiness/standards.html	www.desmos.com is a free online graphing calculator. Excellent for working with linear equations, scatterplots, and best-fit lines.
PLEASE NOTE: This course is designed for Sophomores who need Geometry to graduate. It is assumed that students will take the initiative to refresh Algebra 1 skills.	

1st Nine Weeks: 40 Days

Number concepts/ Pre-Algebra Review

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
AF. 502 Build functions and write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) G. 404 Find the length of the hypotenuse of a right triangle when only very simple computation is involved G. 405 Use geometric formulas when all necessary information is given G. 406 Locate points in the coordinate plane G. 505-507 Compute the perimeter or area of composite geometric figures, triangles, rectangles, or circles after identifying necessary information when one or more additional simple steps are required.	G.RT.1.1 Apply the distance formula and/ or Pythagorean Theorem and its converse to solve real-world and mathematical problems, as approximate and exact values, using algebraic and logical reasoning G.RT.1.2 Verify and apply properties of right triangles, including properties of 45-45-90 and 30-60-90 triangles, to solve problems using algebraic and logical reasoning G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments G.2D.1.6 Apply the properties of polygons to solve real-world and mathematical problems involving perimeter and area G.C.1.1 Apply the properties of circles to solve problems involving circumference and area, approximate values and in terms of π, using algebraic and logical reasoning	Supplemental Material Needed	

Number concepts/ Algebra 1 Review

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
N.401 Exhibit knowledge of elementary number concepts such as rounding, the ordering of decimals, pattern identification, primes, and greatest common factor N. 403 Comprehend the concept of length on the number line and find the distance between two points AF. 401 Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and estimating by using a given average value in place of actual values AF. 402 Perform straightforward word-to-symbol translations A. 401 Evaluate algebraic expressions by substituting integers for unknown quantities A. 402 Add and subtract simple algebraic expressions A. 403 Solve routine first-degree equations N. 501 Order fractions N. 503 Work with numerical factors A. 509 Work with squares and square roots of numbers A. 512 Work problems involving positive integer exponents	G.C.1.4 Apply the distance formula and midpoint formula, where appropriate, to develop the equation of a circle in standard form G.RT.1.1 Apply the distance formula and/ or Pythagorean Theorem and its converse to solve real-world and mathematical problems, as approximate and exact values, using algebraic and logical reasoning	Supplemental Material	

Algebra 1 Review Part 2

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
AF. 403 Relate a graph to a situation described in terms of starting value and an additional amount per unit A. 406 Exhibit knowledge of slope AF. 501 Solve multistep arithmetic problems that involve planning or converting common derived units of measure. A. 502 Solve real-world problems by using first-degree equations F.503 Build functions and use quantitative information to identify graphs for relations that are proportional or linear G. 510 Determine the slope of a line from points or a graph A. 514 Determine the slope of a line from an equation AF. 503 Match linear equations with their graphs in the coordinate plane AF. 601 Solve word problems containing several rates, proportions, or percentages. AF. 602 Build functions and write expressions, equations, and inequalities for common algebra settings	G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments	Supplemental Material	

Basics of Geometry

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
N. 403 Comprehend the concept of length on the number line, and find the distance between two points N. 405 Find the distance in the coordinate plane between two points with the same x-coordinate or y-coordinate AF. 402 Perform straightforward word-to-symbol translations G. 401 Use properties of parallel lines to find the measure of an angle G. 402 Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., $90°, 180°, 360°$) G 403 Compute the area and perimeter of triangles in simple problems G. 407 Translate points up, down, left, and right in the coordinate plane G. 501 Use several angle properties to find an unknown angle measure G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G. 511 Find the midpoint of a line segment AF. 603 Interpret and use information from graphs in the coordinate plane A.601 Manipulate expressions and equations G. 605 Use the distance formula AF. 704 Analyze and draw conclusions based on information from graphs in the coordinate plane G. 702 Compute the area of composite geometric figures when planning and/or visualization is required G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.C.1.1 Apply the properties of circles to solve problems involving circumference and area, approximate values and in terms of π, using algebraic and logical reasoning G.C.1.4 Apply the distance formula and midpoint formula, where appropriate, to develop the equation of a circle in standard form G.RT.1.1 Apply the distance formula and/ or Pythagorean Theorem and its converse to solve real-world and mathematical problems, as approximate and exact values, using algebraic and logical reasoning G. 2D.1.2 Apply the properties of angles, including corresponding, exterior, interior, vertical, complementary, and supplementary angles to solve real-world and mathematical problems using algebraic reasoning and proofs G. 2D.1.3 Apply theorems involving the interior and exterior angle sums of polygons and use them to solve real-world and mathematical using algebraic reasoning and proofs G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments G.2D.1.6 Apply the properties of polygons to solve real-world and mathematical problems involving perimeter and area G. 2D.1.9 use numeric, graphic, and algebraic representations of transformations in two dimensions, such as reflections, translations, dilations, and rotations about the origin by multiples of 90°, to solve problems involving figures on a coordinate plane and identify types of symmetry G.RL.1.1 Analyze and draw conclusions based on a set of conditions using inductive and deductive reasoning.	Ch. 1	

Reasoning and Proofs

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
G. 401 Use properties of parallel lines to find the measure of an angle G.402 Exhibit knowledge of basic angle properties and special sums of angle measures G. 501 Use several angle properties to find an unknown angle measure G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure N. 701 Analyze and draw conclusions based on number concepts AF. 703 Analyze and draw conclusions based on properties of algebra and/ or functions AF. 704 Analyze and draw conclusions based on information from graphs in the coordinate plane G. 704 Analyze and draw conclusions based on a set of conditions G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G.RL.1.2 Analyze and draw conclusions based on a set of conditions using inductive and deductive reasoning. Recognize the logical relationship between a conditional statement and its inverse, converse, and contrapositive G.RL.1.3 Assess the validity of a logical argument and give counterexamples to disprove a statement G.2D.1.1 Apply the properties of parallel and perpendicular lines, including properties of angles formed by a transversal, to solve real-world and mathematical problems and determine if two lines are parallel, using algebraic reasoning and proofs G. 2D.1.2 Apply the properties of angles, including corresponding, exterior, interior, vertical, complementary, and supplementary angles to solve real-world and mathematical problems using algebraic reasoning and proofs G. 2D.1.3 Apply theorems involving the interior and exterior angle sums of polygons and use them to solve real-world and mathematical using algebraic reasoning and proofs G.2D.1.4 Apply the properties of special quadrilaterals (square, rectangles, trapezoid, isosceles trapezoid, rhombus, kite, parallelogram) and use them to solve real-world and mathematical problems involving angle measures and segment lengths using algebraic reasoning and proofs G.2D.1.7 Apply the properties of congruent or similar polygons to solve real-world and mathematical problems using algebraic and logical reasoning	Ch. 2	

SECOND NINE WEEKS: 35 Days

Parallel and Perpendicular Lines

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
A.406 Exhibit knowledge of slope G. 401 Use properties of parallel lines to find the measure of an angle G.402 Exhibit knowledge of basic angle properties and special sums of angle measures G.405 Use geometric formulas when all necessary information is given G. 406 Locate points in the coordinate plane A. Determine the slope of a line from an equations G. 501 Use several angle properties to find an unknown angle measure G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G. 511 Find the midpoint of a line segment AF. 603 Interpret and use information from graphs in the coordinate plane G. 606 Use properties of parallel and perpendicular lines to determine an equation of a line or coordinates of a point AF. 704 Analyze and draw conclusions based on information from graphs in the coordinate plane G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G.2D.1.1 Apply the properties of parallel and perpendicular lines, including properties of angles formed by a transversal, to solve real-world and mathematical problems and determine if two lines are parallel, using algebraic reasoning and proofs G. 2D.1.2 Apply the properties of angles, including corresponding, exterior, interior, vertical, complementary, and supplementary angles to solve real-world and mathematical problems using algebraic reasoning and proofs G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments	Ch. 3	

Transformations

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
AF. 402 Perform straightforward word-to-symbol translations G.405 Use geometric formulas when all necessary information is given G. 406 Locate points in the coordinate plane G. 407 Translate points up, down, left, and right in the coordinate plane G. 502 Count the number of lines of symmetry of a geometric figure G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G.512 Find the coordinates of point rotated 180° around a given center point AF. 604 Given an equation or function, find an equation or function whose graph is a translation by a specified amount up or down G. 607 Find the coordinates of a point reflected across a vertical or horizontal or linear identity equation G. 608 Find the coordinates of a point rotated 90° about the origin AF. 704 Analyze and draw conclusions based on information from graphs in the coordinate plane G. 703 Use scale factors to determine the magnitude of a size change. G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments G.2D.1.7 Apply the properties of congruent or similar polygons to solve real-world and mathematical problems using algebraic and logical reasoning G. 2D.1.9 use numeric, graphic, and algebraic representations of transformations in two dimensions, such as reflections, translations, dilations, and rotations about the origin by multiples of 90°, to solve problems involving figures on a coordinate plane and identify types of symmetry	Ch. 4	

Triangles: Congruency and Relationships

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
G.402 Exhibit knowledge of basic angle properties and special sums of angle measures G.405 Use geometric formulas when all necessary information is given G. 501 Use several angle properties to find an unknown angle measure G. 503 Use symmetry of isosceles triangles to find unknown side lengths or angle measures G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G. 511 Find the midpoint of a line segment G. 603 Apple the properties of $30° - 60° - 90°, 45° - 45° - 90°$, similar and congruent triangles G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization **Students must also show an understanding of triangle congruence by applying theorems involving Hypontenuse-Angle, Hypotenuse-Leg, Leg-Leg, and Leg-Angle.**	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G.RL.1.2 Analyze and draw conclusions based on a set of conditions using inductive and deductive reasoning. Recognize the logical relationship between a conditional statement and its inverse, converse, and contrapositive G. 2D.1.2 Apply the properties of angles, including corresponding, exterior, interior, vertical, complementary, and supplementary angles to solve real-world and mathematical problems using algebraic reasoning and proofs G. 2D.1.3 Apply theorems involving the interior and exterior angle sums of polygons and use them to solve real-world and mathematical using algebraic reasoning and proofs G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments G.2D.1.6 Apply the properties of polygons to solve real-world and mathematical problems involving perimeter and area G.2D.1.7 Apply the properties of congruent or similar polygons to solve real-world and mathematical problems using algebraic and logical reasoning	Ch. 5 Ch. 6	

THIRD NINE WEEKS: 45 Days

Quadrilaterals and Other Polygons

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
AF. 402 Perform straightforward word-to-symbol translations G.402 Exhibit knowledge of basic angle properties and special sums of angle measures G.405 Use geometric formulas when all necessary information is given G. 406 Locate points in the coordinate plane G. 501 Use several angle properties to find an unknown angle measure G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure AF. 704 Analyze and draw conclusions based on information from graphs in the coordinate plane G. 702 Compute the area of composite geometric figures when planning and/ or visualization is required G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G. 2D.1.2 Apply the properties of angles, including corresponding, exterior, interior, vertical, complementary, and supplementary angles to solve real-world and mathematical problems using algebraic reasoning and proofs G.2D.1.4 Apply the properties of special quadrilaterals (square, rectangles, trapezoid, isosceles trapezoid, rhombus, kite, parallelogram) and use them to solve real-world and mathematical problems involving angle measures and segment lengths using algebraic reasoning and proofs G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments G.2D.1.6 Apply the properties of polygons to solve real-world and mathematical problems involving perimeter and area G.2D.1.7 Apply the properties of congruent or similar polygons to solve real-world and mathematical problems using algebraic and logical reasoning	Ch. 7	

Similarities

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
G.405 Use geometric formulas when all necessary information is given G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G.2D.1.7 Apply the properties of congruent or similar polygons to solve real-world and mathematical problems using algebraic and logical reasoning G.2D.1.8 Construct logical arguments to prove triangle congruence (SSS, SAS, ASA, AAS, and HL) and triangle similarity (AA, SSS, SAS)	Ch. 8	

Right Triangles and Trigonometry

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
N. 403 Comprehend the concept of length on the number line, and find the distance between two points AF. 402 Perform straightforward word-to-symbol translations G.402 Exhibit knowledge of basic angle properties and special sums of angle measures G. 404 Find the length of the hypotenuse of a right triangle when only very simple computation is involved G.405 Use geometric formulas when all necessary information is given G. 406 Locate points in the coordinate plane A. 509 Work with squares and square roots of numbers G. 501 Use several angle properties to find an unknown angle measure G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G. 508 Given the length of two sides of a right triangle, find the third when the lengths are Pythagorean triples G. 509 Express the sine, cosine, and tangent of an angle in a right triangle as a ration of given side lengths AF. 603 Interpret and use information from graphs in the coordinate plane G. 602 Use the Pythagorean theorem G. 603 Apply the properties of $30° - 60° - 90°, 45° - 45° - 90°$, similar and congruent triangles G. 604 Apply basic trigonometric rations to solve right-triangle problems AF. 704 Analyze and draw conclusions based on information from graphs in the coordinate plane F. 704 Exhibit knowledge of unit circle F. 706 Use trigonometric concepts and basic identities to solve problems G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G. 2D.1.2 Apply the properties of angles, including corresponding, exterior, interior, vertical, complementary, and supplementary angles to solve real-world and mathematical problems using algebraic reasoning and proofs G.RT.1.1 Apply the distance formula and/ or Pythagorean Theorem and its converse to solve real-world and mathematical problems, as approximate and exact values, using algebraic and logical reasoning G.RT.1.2 Verify and apply properties of right triangles, including properties of 45-45-90 and 30-60-90 triangles, to solve problems using algebraic and logical reasoning G.RT.1.3 Use definition of the trigonometric functions to determine the sine, cosine, and tangent ration of an acute angle in a right triangle. Apply the inverse trigonometric functions to find the measure of an acute angle in a right triangle G.RT.1.4 Apply the trigonometric functions as rations (sine, cosine, and tangent) to find side lengths in right triangles in real-world and mathematical problems. G.C.1.4 Apply the distance formula and midpoint formula, where appropriate, to develop the equation of a circle in standard form	Ch. 9	

FOURTH NINE WEEKS: 40 Days

Circles

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
N. 403 Comprehend the concept of length on the number line, and find the distance between two points N.405 Find the distance in the coordinate plane between two points with the same x- or y- coordinate AF. 402 Perform straightforward word-to-symbol translations G.405 Use geometric formulas when all necessary information is given G. 406 Locate points in the coordinate plane A. 509 Work with squares and square roots of numbers G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G.512 Find the coordinates of point rotated 180° around a given center point AF. 603 Interpret and use information from graphs in the coordinate plane A. 601 Manipulate equations (e.g., convert to or from standard form) G. 605 Use the distance formula G. 609 Recognize special characteristics of parabolas and circles AF. 703 Analyze and draw conclusions based on information from graphs in the coordinate plane G. 701 Use relationships among angles, arcs, and distances in a circle AF. 702 Build functions and write expressions, equations, and inequalities when the process requires planning and/ or strategic manipulation AF. 704 Analyze and draw conclusions based on information from graphs in the coordinate plane G. 701 Use relationships among angles, arcs, and distances in a circle G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G. 2D.1.2 Apply the properties of angles, including corresponding, exterior, interior, vertical, complementary, and supplementary angles to solve real-world and mathematical problems using algebraic reasoning and proofs G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments G.C.1.1 Apply the properties of circles to solve problems involving circumference and area, approximate values and in terms of π, using algebraic and logical reasoning G.C.1.2 G.C.1.3 Recognize and write the radius *r*, center $(h,\ k)$, and standard form of the equation of a circle $(x-h)^2+(y-k)^2=r^2$ with and without graphs G.C.1.4 Apply the distance formula and midpoint formula, where appropriate, to develop the equation of a circle in standard form *inscribed angles, central angles, exterior angles **Solving secant and tangent lengths will be quadratic formula applicable.**	Ch. 10	

Circumference, Area, and Surface Area

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
AF. 402 Perform straightforward word-to-symbol translations G.403 Compute the area and perimeter of triangles and rectangles in simple problems G.405 Use geometric formulas when all necessary information is given A. 509 Work with squares and square roots of numbers G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G. 505 Compute the perimeter of simple composite geometric figures with unknown side lengths G. 506 Compute the area of triangles and rectangles when one or more additional simple steps are required G. 507 Compute the area and circumference of circles after identifying necessary information G. 601 Use relationships involving area, perimeter, and volume of geometric figures to compute another measure G. 702 Compute the area of composite geometric figures when planning and/ or visualization is required G. 703 Use scale factors to determine the magnitude of a size change. G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G.C.1.1 Apply the properties of circles to solve problems involving circumference and area, approximate values and in terms of π, using algebraic and logical reasoning G.2D.1.4 G.2D.1.5 Use coordinate geometry to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments G.2D.1.6 Apply the properties of polygons to solve real-world and mathematical problems involving perimeter and area G.2D.1.7 Apply the properties of congruent or similar polygons to solve real-world and mathematical problems using algebraic and logical reasoning G.3D.1.1 Solve real-world and mathematical problems using the surface area and volume of prisms, cylinders, pyramids, cones, spheres, and composites of these figures. Use nets, measuring devices, or formulas as appropriate. G.3D.1.2 Use rations derived from similar three-dimensional figures to make conjectures, generalize, and to solve for unknown values such as angles, side lengths, perimeter or circumferences of a face, area of a face, and volume	Ch. 11	

Volume

Standards		Text	Days
Mathematics College & Career Readiness Standards (ACT)	Oklahoma Academic Standards		
AF. 402 Perform straightforward word-to-symbol translations G.403 Compute the area and perimeter of triangles and rectangles in simple problems G.405 Use geometric formulas when all necessary information is given A. 509 Work with squares and square roots of numbers G. 504 Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure G. 505 Compute the perimeter of simple composite geometric figures with unknown side lengths G. 506 Compute the area of triangles and rectangles when one or more additional simple steps are required G. 601 Use relationships involving area, perimeter, and volume of geometric figures to compute another measure G. 705 Solve multistep geometry problems that involve integrating concepts, planning, and/ or visualization	G.RL.1.1 Understand the use of undefined terms, definitions, postulates, and theorems in logical arguments/ proofs G.3D.1.1 Solve real-world and mathematical problems using the surface area and volume of prisms, cylinders, pyramids, cones, spheres, and composites of these figures. Use nets, measuring devices, or formulas as appropriate. G.3D.1.2 Use rations derived from similar three-dimensional figures to make conjectures, generalize, and to solve for unknown values such as angles, side lengths, perimeter or circumferences of a face, area of a face, and volume	Ch. 12	