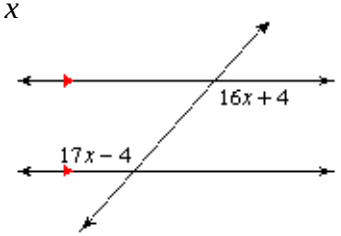
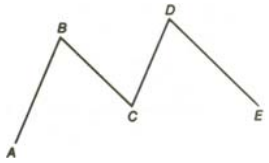
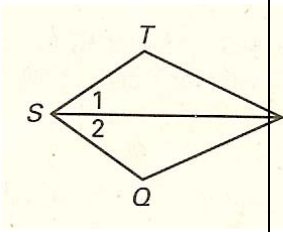
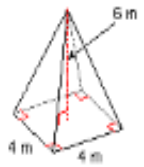
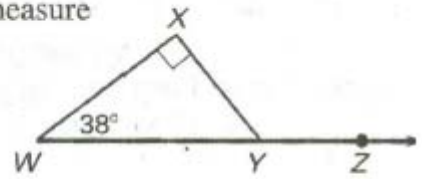
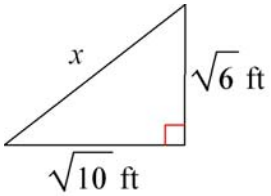
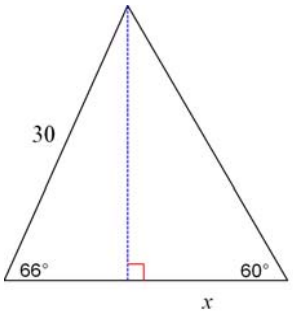
What is it we expect students to learn? Identifying Essential Standards

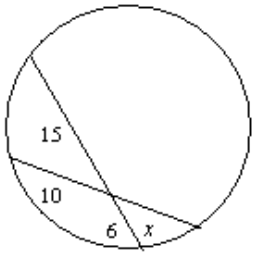
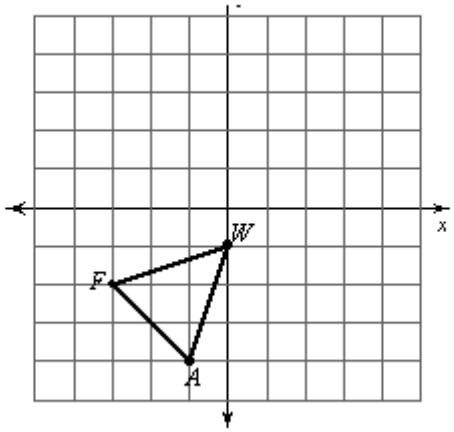
2011/2012 Essential Standards

Course Title: **Geometry** Team Members: Corey Fukuman, David Ray, Brian Klein, Scott McCullough

Standard #	Standard/Description	Example/Rigor	Prior Skills Needed	Common Assessment	When Taught
CA 3	I can construct and judge the validity of a logical argument and give counterexamples to disprove a statement.	Let p be "Jana wins the contest", q be "Jana gets free tickets to the concert" and r be "Jana goes to the concert". Use statements p and q to construct a valid argument using the Law of Detachment.	Identifying hypothesis and conclusion, Understanding deductive reasoning Decide whether a statement is true or false. If false, provide a counterexample.	Common formative assessments (mini-quizzes) and common summative assessments (chapter 2 test)	August/ January
CA 7	I can use theorems involving the properties of parallel lines cut by a transversal.	Find x 	Congruent Supplementary Solve linear equations. Identifying special pairs formed by a two lines and a transversal.	Common formative assessments (mini-quizzes) and common summative assessments (chapter 3 test)	Aug-Sept/ January
CA 2	I can write geometric proofs.	**Given:** $\overline{BA} \cong \overline{DC}$; $\angle ABC \cong \angle CDE$ **Prove:** $\overline{BC} \cong \overline{DE}$ 	Properties of Parallel Lines, Algebraic Properties, Deductive Reasoning, Angle Pair Relationships	Common formative assessments (mini-quizzes) and common summative	Sept/ Februar y

				(chapter 3 test) assessments	
CA 5	I can prove that triangles are congruent or similar, and they are able to use the concept of corresponding parts of congruent triangles	**Given:** $\overrightarrow{SR}$ bisects $\angle TSQ$; $\overline{TS} \cong \overline{QS}$ **Prove:** $\angle T \cong \angle Q$ 	Properties of Parallel Lines, Algebraic Properties, Deductive Reasoning. Angle Pair Relationships, Using and applying proportions.	Common formative assessments (mini-quizzes) and common summative assessments (chapter 4 and chapter 8 unit test)	Sept,Oct Februar y, March
CA 9	I can compute the volumes and surface areas of prisms, pyramids, cylinders, cones, and spheres using appropriate formulas.	Find the volume of each figure. Round your answers to the nearest thousandth, if necess answers in terms of π for answers that contain π. 8) 	Know and understand all perimeter and area formulas for polygons. Know and understand all surface area and volume formulas for solids.	Common formative assessments (mini-quizzes) and common summative assessments (chapter 12 test)	Dec/ April-May
CA 13	I can apply relationships between angles in polygons by using properties of complementary, supplementary, vertical, and exterior angles.	What is the measure of $\angle XYZ$? A 142° B 128° C 118° D 132° E Cannot be determined 	Triangle sum theorem, Angle pair relationships, Solve linear equations	Common formative assessments (mini-quizzes) and common summative assessments (chapter 4 test)	Sept/ Februar y

CA 14	I can use the Pythagorean Theorem to determine distance and find missing sides of right triangles.	Find x  	Pythagorean Theorem, Simplifying radicals, Solving algebraic equations	Common formative assessments (mini-quizzes) and common summative assessments (chapter 9 test)	Nov/ April
CA 19	I can use trigonometric functions to solve for an unknown length of a side of a right triangle, given an angle and a length of a side.	Solve for *x*  	Right triangle trigonometry, Parts of a right triangle, Solve algebraic equations	Common formative assessments (mini-quizzes) and common summative assessments (chapter 9 test)	Nov/ April
CA 17	I can solve problems by using coordinate geometry, including the midpoint of a line segment, the distance formula, and various forms of equations of lines and circles	Identify the center and radius. $(x-16)^2+(y+8)^2=5$	Simplifying radicals, Know distance and midpoint formulas	Common formative assessments (mini-quizzes) and common summative assessment (chapter 1 and chapter 10 test)	August, Novemb er/ January, April

CA 21	I can solve problems regarding relationships among chords, secants, tangents, inscribed angles, and inscribed and circumscribed polygons of circles.	Find *x*  	Know and understand parts of a circle, Solve algebraic equations including quadratics and systems of equations, Formulas for angle measures and	Common formative assessments (mini-quizzes) and common summative assessments (chapter 10 test)	August, November/ January, April
CA 22	I will know the effect of rigid motions on figures in the coordinate plane and space, including rotations, translations, and reflections.	Find the image of the triangle under the translation described by (x,y)→(x+3,y-1)  	Understanding of the coordinate plane, Special notation and formulas for special transformations, Graphing linear equations including horizontal and vertical lines.	Common formative assessments (mini-quizzes) on summative assessments (chapter 7 test)	December/ May