Map: **Integrated Geometry Semester 1 by Buonomo / Olsen** Type: **Consensus** Grade Level: **10** School Year: **2010-2011**

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	Essential Questions	Content	Skills	Assessments	Standards/PIs	Resources/Notes
Unit 1	What is the difference between a mathematical statement and a non-mathematical statement? How is a statement negated? How is negation symbolized? Why are truth tables used and how is the truth table constructed for negation? Disjunction? Conjunction? Conditional? Biconditional? Inverse, Converse, Contrapositive?	**LOGIC** ***4 - 6 days*** Statements, Negations, and Truth Values Conjunctions and Disjunctions Conditionals and Biconditionals Inverse, Converse, Contrapositive Logically Equivalent Statements Constructing Truth Tables ***Vocabulary*** *statement* *negation* *truth values* *conjunction* *disjunction* *conditional* *bidconditional* *inverse* *converse* *contrapositive* *logically equivalent* *truth table* *hypothesis* *conclusion*	Rewrites a non-mathematical sentence using logic notation. Constructs truth tables for each operation in logic. Identifies hypotheses and conclusions from given statements		**MST1-K2-1A** **MST3-G.RP.1** **MST3-G.RP.3** **MST3-G.RP.4** **MST3-G.CM.3** **MST3-G.G.24** **MST3-G.G.25** **MST3-G.G.26**	

Unit 2	How do the various geometric figures relate to each other? How are angles classified? Why is the shortest distance between two points a straight line? How is a plane determined? Why are planes coplanar, and how do they intersect? How do parallel and perpendicular lines relate to each other?	**Geometric Relationships** **4-6 days** Classify angles according to their measures Midpoints and line bisectors Distance between points Perpendicular lines and planes Working with parallel lines and transversals ***Vocabulary*** *colinear points, congruent, midpoint, angles, acute, right, obtuse, straight and congruent angles* *line segments, rays, opposite rays* *parallel lines, parallel planes* *congruent line segments* *midpoint of line segment, bisector of line segment, bisector of an angle* *perpendicular lines* *distance from a point to a line*	Memorize the defintions included in this unit Find the measure of angles Recognize vertical angles and adjacent angles Define complementary angles and supplementary angles Add angles Draw points, lines, collinear points Find the length of line segments Find the midpoint of a line segment Determine if two line segments are congruent Recognize the result of intersecting planes and lines intersecting within a plane Define perpendicular bisector		**MST3-G.G.1** **MST3-G.G.2** **MST3-G.G.3** **MST3-G.G.4** **MST3-G.G.5** **MST3-G.G.5** **MST3-G.G.6** **MST3-G.G.7** **MST3-G.G.8** **MST3-G.G.9** **MST3-G.G.35**	
Unit 3	How do angles formed by two parallel lines and a transversal relate to each other? What is necessary to show that two lines are parallel?	**PROPERTIES OF PARALLEL LINES:** ***2-3 days*** Relate parallel and perpendicular lines Parallel lines, transversals and related angles Congruent and supplementary angles formed when two lines are cut by a transversal Perpendicular transversals Two or more transversals to the same set of parallel lines Proving lines parallel ***Vocabulary:*** *Parallel lines*	Memorize the defintions and geometric thereoms included in this unit Recognize a transversal Recognize alternate interior angles Recognize same- side interior angles Recognize corresponding angles Recognize alternate exterior angles Apply corresponding angle postulate Apply Alternate interior angle postulate Apply Same-side interior		**MST3-G.G.35**	

		Transversal *Interior angles* *Exterior angles* *Corresponding angles* *Alternate interior angles* *Alterate exterior angles* *Interior angles on the same side of the transversal*	angle postulate Apply Alternate exterior angle postulate Use the converse of the Corresponding angle postulate, Alternate interior angle postulate, Same-side interior angle postulate and Alternate exterior angle postulate to show that two or more line are parallel lines			#11 Parallel Lines 2

	Essential Questions	Content	Skills	Assessments	Standards/PIs	Resources/Notes
Unit 4	How are triangles classified? How do you find the sum of the angles of a triangle? Why does the Pythagorean Theorem only work with Right Triangles? How can the Pythagorean Theorem be used to solve a real world problem? Why is it necessary to be able to find the area of a triangle?	**TRIANGLES** **9-11 days** Types of Triangles classified by Sides: Scalene, Isosceles, Equilateral Types of Triangles classified by Angles: Acute, Right, Obtuse Triangle Sum Theorem Exterior Angle Theorem Triangle Inequality Theorem Isosceles Triangle Theorem Special Segments in a Triangle Pythagorean Theorem Area of a Triangle formula ***Vocabulary*** *polygon* *scalene, isosceles, equilateral,* *right, acute, obtuse, equiangular* *legs, hypotenuse* *altitude, median, angle bisector, perpendicular bisector* *midsegment* *circumcenter* *concurrence* *area*	Applies algebra skills in finding missing sides and angles of a triangle Identifies base angles of an isosceles triangle to be congruent Computes the sum of the angles of any triangle Relates the largest side to the largest angle, smallest side to the smallest angle, and middle side to the middle angle of a triangle Solves various problems involving right triangles and the Pythagorean Theorem Calculate the area of a triangle		**MST3-G.G.30** **MST3-G.G.31** **MST3-G.G.32** **MST3-G.G.33** **MST3-G.G.34** **MST3-G.G.48**	
Unit 5	How are ratios and proportions used to solve geometric problems? Where are ratios/proportions used in the real world? How are theorems used to help solve problems dealing with ratios, proportions, and similar triangles?	**Ratio/Proportion/Similar Triangles** ***6-8 days*** Ratios/Proportions Means/Extremes	Applies the theorem in a ratio: the product of the means is equal to the product of the extremes Applies algebra skills in determining values for missing sides/angles in similar triangles Memorizes the Mean Proportional Theorem		**MST3-G.G.42** **MST3-G.G.46** **MST3-G.G.45** **MST3-G.G.47** **MST3-G.G.44**	

		Mean Proportionality Theorem Midsegment Theorem Similar Triangles and the ratio of similtude Altitude to a hypotenuse of a right triangle theorem ***Vocabulary*** *ratio* *proportion* *means* *extremes* *mean proportional* *similar* *midsegment* *ratio of similtude*	Draws conclusions from the relationships between sides of a triangle given one or more lines parallel to one side of a triangle Recognizes that the length of the altitude is the mean proportional between the lengths of the segemnts of the hypotenuse			
Unit 6	How are various polygons classified? Why are concave and convex polygons different? How are the angles of a polygon classifeid? How is the sum of the interior angles of a polygon computed? How is each interior angle of a regular polygon computed? What is the sum of the exterior angles of a polygon? How is each exterior angle of a regular polygon computed?	**INTERIOR AND EXTERIOR ANGLES OF A POLYGON** ***2-4 days*** Types of polygons Types of angles in a polygon Compute the sum of the interior angles of various polygons Compute the value for each interior angle of a regular polygon Compute the sum of the exterior angles of various polygons Compute the value fer each exterior angle of a regular polygon ***Vocabulary*** *Interior angle* *exterior angle*	Memorizes the names for various types of polygons Identifies various angles in a polygon Evaluates the sum of the interior angles of various types of polygons Evaluates each interior angle of a regular polygon Recognizes that the sum of the exterior angles of any poygon is 360 degrees Evaluates each exterior angle of a regular polygon		**MST3-G.G.36** **MST3-G.G.37**	

		pentagon *hexagon* *octogaon* *decagon* *n-gon* *regular polygon* *convex polygon* *concave polygon*				

	Essential Questions	Content	Skills	Assessments	Standards/PIs	Resources/Notes
Unit 7	Why is it important to continue to use prior theorems and properties when working with quadrilaterals? How can we identify a quadrilateral that is a parallelogram? Why is a rectangle a special type of parallelogram? What properties distinguish a rhombus from a rectangle? Why is a square a rhombus but a rhombus NOT a square? How do trapezoids differ from other quadrilaterals?	**Quadrilaterals** ***9-11 days*** **Review** Consecutive/Adjacent vertices Consecutive/Adjacent angles Consecutive/Adjacent sides **Quadrilateral Properties** Opposite Sides/Angles Diagonals **Parallelograms** Opposite sides are parallel A diagonal divides a parllelogram into two congruent triangles Opposite sides are congruent Opposite angles are congruent Consecutive angles are supplementary The diagonals bisect each other **Rectangles** A rectangle has all the properties of a parallelogram A rectangle has four right angles and is, therefore, equiangular The diagonals of a rectangle are congruent **Rhombus** A rhombus has all the properties of a parallelogram A rhombus is equilateral The diagonals of a rhombus are perpendicular to each other	Uses algebraic methods to find missing angles of parallelograms Assesses various sides and angles using appropriate properties of each special parallelogram (rectangle, square, rhombus) Determines if a quadrilateral is a special parallelogram (rectangle, square, rhombus) using theorems and properties such as consecutive and opposite angles Recalls the properties of an isosceles trapezoid Applies the properties of an isosceles trapezoid and algebra skills to compute angles		**MST3-G.G.38** **MST3-G.G.39** **MST3-G.G.40** **MST3-G.G.41**	

		The diagonals of a rhombus bisect its angles **Square** A square has all the properties of a rectangle A square has all the properties of a rhombus **Trapezoids** One pair of parallel sides Median of a trapezoid Isosceles Trapezoid ***Vocabulary*** *parallel* *congruent* *consecutive angle* *opposite angle* *diagonal* *supplementary* *bisect* *equiangular* *equilateral* *isosceles* *median of a trapezoid*				
Unit 8	How do the radii of a circle relate to each other? What are congruent circles and congruent arcs? How do central angles and arcs relate to each other? How is an inscribed angle measured? How are the measures of angles formed by two chords intersecting within a circle computed? How are the measures of angles formed by two tangents, two secants or a secant and tangent	**CIRCLES** ***9-11 days*** Parts of a circle Angles in a circle Angles outside the circle formed by tangents and secants	Memorize definitions associated with circles Memorize circle theorems Compute the measure of central angles, inscribed angles Compute the measure of an angle formed by two chords intersecting within a cirlce Compute the measure of an angle formed by		**MST3-G.G.49** **MST3-G.G.50** **MST3-G.G.51** **MST3-G.G.52** **MST3-G.G.53**	

	computed? How are the lengths of the segments of two chords which intersect within a circle calculated? How are the lengths of the segments of tangents and secants intersecting outside the circle measured? How is a polygon circumscribed about a circle? How is a polygon inscribed in a circle?	Lengths of line segments formed by two chords intersecting within a circle Lengths of line segments formed by two tangents, two secants, or a tangent and a secant interscting outside a circle Polygons inscribed in a circle Polygons circumscribed about a circle ***Vocabulary*** *circle* *central angle* *arc* *radii* *chords* *inscribed angle* *Equidistant* *inscribed polygon* *tangent* *secant* *circumscribed polygon*	two tangents, two secants or a tangent and a secant Compute the measures of the line segments formed by two chords intersecting within a circle Compute the measure of the line segments formed by a secant and a tangent or two secants intersecting outside the circle Recognize an inscribed polygon Apply theorems regarding chords and inscribed angles to a incsribed polygon Recognize a circumscribed polygon Apply theorems regarding tangents to circumscribed polygons			
Unit 9	How is the slope of a line determined from two points on the line? How are slopes of lines used to determine if two lines are parallel, perpendicular or neither? How is the midpoint formula used to find the midpoint and the bisector of a line segment? How is the distance formula used to find the length of a line segment? How are the midpoint, slope, and distance formulas applied to triangles? How is the equation of a line written given the slope and y-intercept of the line?	**COORDINATE GEOMETRY** ***9 - 11 days*** Plotting points slope formula Positive, negative zero and no slope Slopes of parallel and perpendicular lines Midpoint formula Distance formula Formulas related to the properties of a triangle	Recognizes the slope of a line by looking at the line Computes ths slope of a line given two points on the line Recognizes parallel and perpendicular lines from their slopes Applies the midpoint and distance formulas to various situations Recognizes a line by its equation Writes the equation of a line given the line's slope and y-intercept Writes the equation of a line given two points on the line		**MST3-G.G.62** **MST3-G.G.66** **MST3-G.G.67** **MST3-G.G.69** **MST3-G.G.64** **MST3-G.G.68** **MST3-G.G.65** **MST3-G.G.70** **MST3-G.G.71** **MST3-G.G.72** **MST3-G.G.74**	

	How is the equation of a line written given the slope and and a point on the line? How is the equation of a line written given two points on the line? How is the equatoin for the perpendicular bisector of a line segment written given the endpoints of the line segment? What are the two forms for the equation of a circle? How is the equation of a cirlce written given its center? How are the equations for secants and tangents to a circle written given the equation of a circle and the point or points of intersection? How are two or more equations solved using coordinate geometry? What is the intersection of the altitudes of a trianlge called? What is the intersection of the medains of a trianlge called? What is the intersection of the angle bisector of a trianlge called? What is the intersection of the perpendicualr bisectors of the sides of a trianlge called?	Equations of a line Slope intercept form of a line Point slope form a line Writing equations given information in various forms Write the equation of the perpendicular bisector of a line segment, given the endpoint of line segment Equations of circles: center at the origin center other than origin Secants and tangents in coordinate geometry Solving systems of equations graphically Line segments in a triangle and concurrancy: Orthocenter Centroid Incenter Circumcenter ***Vocabulary*** *coordinate plane, x-axis, y-axis, origin, coodinate, x-coordinate - abscissa, y-coordinate - ordinate, ordered pair, slope, concurrent, orthorcenter, centriod, incenter, circumcenter*	Writes the equation of a line given lines parallel or perpendicular to the line Writes the equations of the perpendicular bisector of a line segment, given the endpoint of line segment Writes the equation of a circle given its center and the endpoint of its radius Writes the equation for a secant or a tangent to a circle given the point(s) of intersection Recognizes and defines an orthocenter, centroid, incenter and circumcenter of a triangle			

	Essential Questions	Content	Skills	Assessments	Standards/PIs	Resources/Notes

Key to Standards used in this Map

MST1-K2-1A [1 occurence] - MST Standard 1 - Key Idea 2 [Mathematical Analysis ii] - Performance Indicator 1A - use deductive reasoning to construct and evaluate conjectures and arguments, recognizing that patterns and relationships in mathematics assist them in arriving at these conjectures and arguments. [Commencement]

MST3-G.RP.1 [1 occurence] - MST Standard 3 - Reasoning and Proof Strand - Students will recognize reasoning and proof as fundamental aspects of mathematics. - Performance Indicator G.RP.1 - recognize that mathematical ideas can be supported by a variety of strategies [Geometry]

MST3-G.RP.3 [1 occurence] - MST Standard 3 - Reasoning and Proof Strand - Students will make and investigate mathematical conjectures. - Performance Indicator G.RP.3 - investigate and evaluate conjectures in mathematical terms, using mathematical strategies to reach a conclusion [Geometry]

MST3-G.RP.4 [1 occurence] - MST Standard 3 - Reasoning and Proof Strand - Students will develop and evaluate mathematical arguments and proofs. - Performance Indicator G.RP.4 - provide correct mathematical arguments in response to other students' conjectures, reasoning, and arguments [Geometry]

MST3-G.CM.3 [1 occurence] - MST Standard 3 - Communication Strand - Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others. - Performance Indicator G.CM.3 - present organized mathematical ideas with the use of appropriate standard notations, including the use of symbols and other representations when sharing an idea in verbal and written form [Geometry]

MST3-G.G.1 [1 occurence] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.1 - know and apply that if a line is perpendicular to each of two intersecting lines at their point of intersection, then the line is perpendicular to the plane determined by them [Geometry]

MST3-G.G.2 [1 occurence] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.2 - know and apply that through a given point there passes one and only one plane perpendicular to a given line [Geometry]

MST3-G.G.3 [1 occurence] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.3 - know and apply that through a given point there passes one and only one line perpendicular to a given plane [Geometry]

MST3-G.G.4 [1 occurence] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.4 - know and apply that two lines perpendicular to the same plane are coplanar [Geometry]

MST3-G.G.5 [2 occurences] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.5 - know and apply that two planes are perpendicular to each other if and only if one plane contains a line perpendicular to the second plane [Geometry]

MST3-G.G.6 [1 occurence] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.6 - know and apply that if a line is perpendicular to a plane, then any line perpendicular to the given line at its point of intersection with the given plane is in the given plane [Geometry]

MST3-G.G.7 [1 occurence] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.7 - know and apply that if a line is perpendicular to a plane, then every plane containing the line is perpendicular to the given plane [Geometry]

MST3-G.G.8 [1 occurence] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.8 - know and apply that if a plane intersects two parallel planes, then the intersection is two parallel lines [Geometry]

MST3-G.G.9 [1 occurence] - MST Standard 3 - Geometry Strand - Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes. [Geometric Relationships] - Performance Indicator G.G.9 - know and apply that if two planes are perpendicular to the same line, they are parallel [Geometry]

MST3-G.G.24 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.24 - determine the negation of a statement and establish its truth value [Geometry]

MST3-G.G.25 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.25 - know and apply the conditions under which a compound statement (conjunction, disjunction, conditional, biconditional) is true [Geometry]

MST3-G.G.26 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.26 - identify and write the inverse, converse, and contrapositive of a given conditional statement and note the logical equivalences [Geometry]

MST3-G.G.30 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.30 - investigate, justify, and apply theorems about the sum of the measures of the angles of a triangle [Geometry]

MST3-G.G.31 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.31 - investigate, justify, and apply the isosceles triangle theorem and its converse [Geometry]

MST3-G.G.32 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.32 - investigate, justify, and apply theorems about geometric inequalities, using the exterior angle theorem [Geometry]

MST3-G.G.33 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.33 - investigate, justify, and apply the triangle inequality theorem [Geometry]

MST3-G.G.34 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.34 - determine either the longest side of a triangle given the three angle measures or the largest angle given the lengths of three sides of a triangle [Geometry]

MST3-G.G.35 [2 occurences] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.35 - determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines [Geometry]

MST3-G.G.36 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.36 - investigate, justify, and apply theorems about the sum of the measures of the interior and exterior angles of polygons [Geometry]

MST3-G.G.37 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.37 - investigate, justify, and apply theorems about each interior and exterior angle measure of regular polygons [Geometry]

MST3-G.G.38 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.38 - investigate, justify, and apply theorems about parallelograms involving their angles, sides, and diagonals [Geometry]

MST3-G.G.39 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.39 - investigate, justify, and apply theorems about special parallelograms (rectangles, rhombuses, squares) involving their angles, sides, and diagonals [Geometry]

MST3-G.G.40 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.40 - investigate, justify, and apply theorems about trapezoids (including isosceles trapezoids) involving their angles, sides, medians, and diagonals [Geometry]

MST3-G.G.41 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.41 - justify that some quadrilaterals are parallelograms, rhombuses, rectangles, squares, or trapezoids [Geometry]

MST3-G.G.42 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.42 - investigate, justify, and apply theorems about geometric relationships, based on the properties of the line segment joining the midpoints of two sides of the triangle [Geometry]

MST3-G.G.44 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.44 - establish similarity of triangles, using the following theorems: aa, sas, and sss [Geometry]

MST3-G.G.45 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.45 - investigate, justify, and apply theorems about similar triangles [Geometry]

MST3-G.G.46 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.46 - investigate, justify, and apply theorems about proportional relationships among the segments of the sides of the triangle, given one or more lines parallel to one side of a triangle and intersecting the other two sides of the triangle [Geometry]

MST3-G.G.47 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.47 - investigate, justify, and apply theorems about mean proportionality [Geometry]

MST3-G.G.48 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.48 - investigate, justify, and apply the pythagorean theorem and its converse [Geometry]

MST3-G.G.49 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.49 - investigate, justify, and apply theorems regarding chords of a circle [Geometry]

MST3-G.G.50 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.50 - investigate, justify, and apply theorems about tangent lines to a circle [Geometry]

MST3-G.G.51 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.51 - investigate, justify, and apply theorems about the arcs determined by the rays of angles formed by two lines intersecting a circle when the vertex is inside the circle, on the circle, and outside the circle [Geometry]

MST3-G.G.52 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.52 - investigate, justify, and apply theorems about arcs of a circle cut by two parallel lines [Geometry]

MST3-G.G.53 [1 occurence] - MST Standard 3 - Geometry Strand - Students will identify and justify geometric relationships formally and informally. [Informal and Formal Proofs] - Performance Indicator G.G.53 - investigate, justify, and apply theorems regarding segments intersected by a circle [Geometry]

MST3-G.G.62 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.62 - find the slope of a perpendicular line, given the equation of a line [Geometry]

MST3-G.G.64 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.64 - find the equation of a line, given a point on the line and the equation of a line perpendicular to the given line [Geometry]

MST3-G.G.65 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.65 - find the equation of a line, given a point on the line and the equation of a line parallel to the desired line [Geometry]

MST3-G.G.66 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.66 - find the midpoint of a line segment, given its endpoints [Geometry]

MST3-G.G.67 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.67 - find the length of a line segment, given its endpoints [Geometry]

MST3-G.G.68 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.68 - find the equation of a line that is the perpendicular bisector of a line segment, given the endpoints of the line segment [Geometry]

MST3-G.G.69 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.69 - investigate, justify, and apply the properties of triangles and quadrilaterals in the coordinate plane, using the distance, midpoint, and slope formulas [Geometry]

MST3-G.G.70 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.70 - solve systems of equations involving one linear equation and one quadratic equation graphically [Geometry]

MST3-G.G.71 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.71 - write the equation of a circle, given its center and radius or given the endpoints of a diameter [Geometry]

MST3-G.G.72 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.72 - write the equation of a circle, given its center and radius or given the endpoints of a diameter [Geometry]

MST3-G.G.74 [1 occurence] - MST Standard 3 - Geometry Strand - Students will apply coordinate geometry to analyze problem solving situations. [Coordinate Geometry] - Performance Indicator G.G.74 - graph circles of the form (x-h)2 + (j-k)2 = r2 [Geometry]