

Geometry VAN BUREN SCHOOL DISTRICT		
Module 1	Start: 8/20/2007	Teaching Days: 29 Test: 10/10/2007 Remediation Days: 0
LG.1.G.1a	Define inductive and deductive reasoning	2-1, 2-3, 2-5
LG.1.G.1b	Make predictions based on real world situations using inductive reasoning	2-1
LG.1.G.1c	Make predictions based on real world situations using deductive reasoning and appropriate strategies such as but not limited to: • Venn diagrams • Matrix logic • Conditional statements (statement, converse, inverse, contrapositive) • Figural patterns	2-2, 2-4
LG.1.G.3	Describe relationships derived from geometric figures or figural patterns	1-2, 1-3, 3-4, 4-1, 4-2, 5-1
LG.1.G.4	Apply, with and without appropriate technology, definitions, theorems, properties, and postulates related to such topics as complementary, supplementary, vertical angles, linear pairs, and angles formed by perpendicular lines	1-4
LG.1.G.5a	Solve problems involving the parallel relationship of two lines in a plane that are cut by a transversal so that a pair of alternate interior, alternate exterior, or corresponding angles are congruent	3-1, 3-2, 3-3
LG.1.G.5b	Solve problems involving the parallel relationship of two lines that are perpendicular to the same line	3-2, 3-3
LG.1.G.6	Give justification for conclusions reached by deductive reasoning; State and prove key basic theorems in geometry (i.e., the Pythagorean Theorem, the sum of the measures of the angles of a triangle is 180° , and the line joining the midpoints of two sides of a triangle is parallel to the third side and half its length)	2-6
CGT.5.G.1a	Use coordinate geometry to find the distance between two points and the midpoint of a segment	1-6
CGT.5.G.1b	Use coordinate geometry to find the slopes of parallel, perpendicular, horizontal, and vertical lines	3-5, 3-6
End of Module 1		

Geometry VAN BUREN SCHOOL DISTRICT		
Module 2	Start: 10/11/2007	Teaching Days: 39 Test: 12/5/2007 Remediation Days: 0
T.2.G.2	Investigate the measures of segments to determine the existence of triangles (triangle inequality theorem)	5-5, 5-6
T.2.G.3a	Identify and use the altitudes of triangles to solve problems	5-3
T.2.G.3b	Identify and use the medians of triangles to solve problems	5-3
T.2.G.3c	Identify and use the angle bisectors of triangles to solve problems	5-2
T.2.G.3d	Identify and use the perpendicular bisectors of triangles to solve problems	5-2
T.2.G.3e	Identify and use the midsegments of triangles to solve problems	5-4
R.4.G.1a	Explore, verify and solve problems involving the properties of quadrilaterals • Four sided polygon	6-1
R.4.G.1b	Explore, verify and solve problems involving the properties of parallelograms • Quadrilateral • Congruent opposite sides and opposite angles • Consecutive angles are supplementary • Diagonals bisect • Two congruent triangles are formed by the diagonals • If there is one right angle, then all angles are right angles.	6-2
R.4.G.1c	Explore, verify and solve problems involving the proof that a quadrilateral is a parallelogram • Diagonals bisect each other • One pair of opposite sides is both congruent and parallel • Both pairs of opposite sides are congruent • Both pairs of opposite sides are parallel • Both pairs of opposite angles are congruent	6-3
R.4.G.1d	Explore, verify and solve problems involving the properties of rectangles • Same properties as parallelograms • Four right angles • Congruent diagonals	6-4, 6-5
R.4.G.1e	Explore, verify and solve problems involving the properties of rhombi • Same properties as parallelograms • All sides are congruent • Diagonals are perpendicular • Diagonals bisect a pair of opposite angles	6-4, 6-5
R.4.G.1f	Explore, verify and solve problems involving the properties of squares • Same properties as parallelograms • Same properties as rectangles • Same properties as rhombi	6-4, 6-5

Geometry VAN BUREN SCHOOL DISTRICT		
Module 2 Start: 10/11/2007 Teaching Days: 39 Test: 12/5/2007 Remediation Days: 0		
R.4.G.1g	Explore, verify and solve problems involving the properties of trapezoids <ul style="list-style-type: none"> • Quadrilateral • One pair of opposite sides are parallel • Midsegment is half the sum of the lengths of the bases 	6-6
R.4.G.1h	Explore, verify and solve problems involving the properties of isosceles trapezoids <ul style="list-style-type: none"> • Same properties as trapezoids • Non-parallel opposite sides (legs) are congruent • Base angles are congruent • Diagonals are congruent 	6-6
R.4.G.1i	Explore, verify and solve problems involving the properties of kites <ul style="list-style-type: none"> • Quadrilateral • Two pairs of adjacent sides are congruent • No opposite sides are congruent • Diagonals are perpendicular 	6-6
R.4.G.2a	Solve problems involving the sum of the measures of the interior angles of a polygon and the interior angle measure of regular and irregular polygons	6-1
R.4.G.2b	Solve problems involving the exterior angles of a regular or irregular polygon	6-1
R.4.G.2c	Solve problems involving the number of sides and number of angles of a polygon	4-1, 4-2, 6-1
End of Module 2		

Geometry VAN BUREN SCHOOL DISTRICT		
Module 3	Start: 12/6/2007	Teaching Days: 31 Test: 3/5/2008 Remediation Days: 0
T.2.G.1a	Apply SSS, SAS, ASA, AAS congruence correspondence to find missing parts of geometric figures and provide logical justification	4-3, 4-4, 4-5, 4-6
T.2.G.1b	Apply LL, HA, LA, HL congruence correspondence to find missing parts of geometric figures and provide logical justification	4-5, 4-6
T.2.G.1c	Apply AA, SSS, SAS similarity correspondence and properties of figures to find missing parts of geometric figures and provide logical justification	7-3, 7-4, 7-6
T.2.G.4	Apply the Pythagorean Theorem and its converse in solving practical problems	5-7
T.2.G.5a	Use the special right triangle relationship 30° - 60° - 90° to solve problems	5-8, 9-1
T.2.G.5b	Use the special right triangle relationship 45° - 45° - 90° to solve problems	5-8, 9-1
T.2.G.6a	Use trigonometric ratios (sine, cosine, tangent) to determine lengths of sides in right triangles	8-2, 8-4
T.2.G.6b	Use trigonometric ratios (sine, cosine, tangent) to determine measures of angles in right triangles	8-2, 8-4
T.2.G.6c	Use trigonometric ratios (sine, cosine, tangent) in right triangle problems involving angles of elevation and depression	8-4
M.3.G.4	Given similar geometric objects, use proportional reasoning to solve practical problems (including scale drawings)	7-1, 7-2, 8-1
End of Module 3		

Geometry VAN BUREN SCHOOL DISTRICT		
Module 4	Start: 3/6/2008	Teaching Days: 49 Test: 5/14/2008 Remediation Days: 0
M.3.G.1	Calculate probabilities arising in geometric contexts (Ex. find the probability of hitting a particular ring on a dartboard)	1-5, 9-6
M.3.G.2a	Solve application problems involving circumference, and perimeter of polygons and composite figures using appropriate units and formulas and expressing solutions in both approximate and exact forms	1-5, 9-1, 9-2, 9-4, 11-3
M.3.G.2b	Solve application problems involving area of circles, polygons and composite figures using appropriate units and formulas and expressing solutions in both approximate and exact forms	1-5, 9-1, 9-3, 9-4
M.3.G.2c	Solve application problems involving surface area of prisms, cylinders, pyramids, and cones using appropriate units and formulas and expressing solutions in both approximate and exact forms	10-4
M.3.G.2d	Solve application problems involving surface area of composite figures using appropriate units and formulas and expressing solutions in both approximate and exact forms	Extension Page 726, 10-5
M.3.G.2e	Solve application problems involving volume of prisms, cylinders, pyramids, and cones using appropriate units and formulas and expressing solutions in both approximate and exact forms	10-6
M.3.G.2f	Solve application problems involving volume of composite figures using appropriate units and formulas and expressing solutions in both approximate and exact forms	Extension Page 726
M.3.G.2g	Solve application problems involving surface area and volume of spheres using appropriate units and formulas and expressing solutions in both approximate and exact forms	10-7, 10-8
M.3.G.3a	Relate change in perimeter of a polygon or circumference of a circle to change in a linear dimension	9-5
M.3.G.3b	Relate change in area of a polygon or surface area of a solid to change in a linear dimension	9-5
M.3.G.3c	Relate change in volume of a solid to change in a linear dimension	9-5
R.4.G.3	Identify and explain why figures tessellate	12-6
R.4.G.4	Identify the attributes of the five Platonic Solids	10-1
R.4.G.5a	Solve problems involving the measure of central angles, the relationship between congruent central angles , the relationship between congruent chords and the measure of the arcs they intercept and visa versa	11-2
R.4.G.5b	Solve problems involving the relationship between a radius that is perpendicular to a chord in a circle and the size of the resulting segments of the chord	11-2
R.4.G.5c	Solve problems involving the congruence relationship of two chords in a circle which are equidistant from the center and visa versa	11-2
R.4.G.5d	Solve problems involving the relationship between measure of an angle inscribed in a circle and the measure of the intercepted arc	11-4
R.4.G.5e	Solve problems involving the perpendicular relationship between a tangent to a circle and a radius drawn to the point of tangency	11-1
R.4.G.5f	Solve problems involving the congruence of two segments from the same exterior point of a circle that are tangent to a circle	11-1

Geometry VAN BUREN SCHOOL DISTRICT		
Module 4 Start: 3/6/2008 Teaching Days: 49 Test: 5/14/2008 Remediation Days: 0		
R.4.G.5g	Solve problems involving the measure of an angle formed by the intersection of two chords within a circle	11-5
R.4.G.5h	Solve problems involving the measure of an angle formed by a secant and a tangent intersecting at the point of tangency	11-5
R.4.G.5i	Solve problems involving the measure of an angle formed by two intersecting secants, a secant and a tangent, or two tangents intersecting in the exterior of a circle	11-5
R.4.G.5j	Solve problems involving the measure of the segments formed by two intersecting chords in a circle	11-6
R.4.G.5k	Solve problems involving the measure of the tangent segment, the secant segment, and the external segment of the secant when a tangent and secant are drawn to a circle from the same exterior point and the measure of the secant segments and the external segments formed by two secants to a circle intersecting at an external point from the circle	11-6
R.4.G.6	Solve problems using inscribed and circumscribed figures	11-1
R.4.G.7a	Use orthographic drawings (top, front, side) to represent three-dimensional objects	10-2
R.4.G.7b	Use isometric drawings (corner) to represent three-dimensional objects	10-2
R.4.G.8	Draw, examine, and classify cross-sections of three-dimensional objects	10-1
End of Module 4		

Geometry Standards Not Yet Requested for Testing		VAN BUREN SCHOOL DISTRICT	
Language of Geometry(LG)			
LG.1.G.2	Represent points, lines, and planes pictorally with proper identification, as well as basic concepts derived from these undefined terms, such as segments, rays, and angles		
Triangles(T)			
T.2.G.7	Use similarity of right triangles to express the sine, cosine, and tangent of an angle in a right triangle as a ratio of given side lengths		
Measurement(M)			
M.3.G.5a	Identify and apply properties of and theorems about parallel and perpendicular lines to prove other theorems		
M.3.G.5b	Identify and apply properties of and theorems about parallel and perpendicular lines to perform basic Euclidean constructions		
M.3.G.5c	Use properties of parallel lines and proportional reasoning to find the lengths of segments (NOTE: This is the wording of this SLE from the 2004 frameworks. TLI has chosen to leave this in to ensure that students are prepared for any interpretation of this SLE.)		
Relationship between 2- and 3- dimensions(R)			
R.4.G.9	Explore non-Euclidean geometries, such as spherical geometry, and identify its unique properties which result from a change in the parallel postulate		
Coordinate Geometry and Transformations(CGT)			
CGT.5.G.2	Write the equation of a line parallel to a line through a given point not on the line		
CGT.5.G.3	Write the equation of a line perpendicular to a line through a given point		
CGT.5.G.4	Write the equation of the perpendicular bisector of a line segment		
CGT.5.G.5	Based on properties of polygons, determine the type of figure formed from a given set of points		
CGT.5.G.6a	Write the equation of a circle in standard form given a graph on a coordinate plane		
CGT.5.G.6b	Write the equation of a circle in standard form given the center and radius		
CGT.5.G.7a	Draw and interpret the results of transformations and successive transformations on figures in the coordinate plane using translations, reflections, and rotations (90° , 180° , clockwise and counterclockwise about the origin)		
CGT.5.G.7b	Draw and interpret the results of dilations (scale factor) and successive dilations on figures in the coordinate plane		
CGT.5.G.7c	Draw and interpret the results of successive transformations on figures in the coordinate plane (Ex. translations, reflections, rotations, and dilations)		