Geometry EOC Tested Benchmarks :: Gateway High School :: 2013-2014

Benchmark	Description	Points
MA.912.G.1.1	**Find the lengths and midpoints of line segments in two-dimensional coordinate systems**	2
MA.912.G.1.3	**Identify and use the relationships between special pairs of angles formed by parallel lines and transversals**	2
MA.912.G.2.2	**Determine the measures of interior and exterior angles of polygons, justifying the method used**	3
MA.912.G.2.3	**Use Properties of congruent and similar polygons to solve mathematical or real-world problems**	4
MA.912.G.2.1	Identify and describe convex, concave, regular and irregular polygons	
MA.912.G.4.1	Classify, and describe triangles that are right, acute, obtuse, scalene, isosceles, equilateral, equiangular	
MA.912.G.4.2	Define and identify altitudes, medians, angle bisectors, perpendicular bisectors, orthocenter, centroid, incenter, and circumcenter	
MA.912.G.4.4	Use properties of congruent and similar triangles to solve problems involving lengths and areas	
MA.912.G.4.5	Apply theorems involving segments divided proportionally	
MA.912.G.2.4	**Apply transformations (translations, reflections, rotations, dilations, and scale factors) to polygons. Know that images formed by translations, reflections, and rotations are congruent to the original shape. Create and verify tessellations of the plane using polygons**	3
MA.912.G.2.5	**Explain the derivation and apply formulas for perimeter and area of polygons**	3
MA.912.G.2.7	Determine how changes in dimensions affect the perimeter and area of common geometric figures	
MA.912.G.3.3	**Use coordinate geometry to prove properties of congruent, regular, and similar quadrilaterals**	1
MA.912.G.3.4	**Prove theorems involving quadrilaterals**	3
MA.912.D.6.4	Use methods of direct and indirect proof and determine whether a short proof is logically valid	
MA.912.G.3.1	Describe, classify, and compare relationships among quadrilaterals including the square, rectangle, rhombus, parallelogram, trapezoid, and kite	
MA.912.G.3.2	Compare and contrast special quadrilaterals on the basis of their properties	
MA.912.G.8.5	Write geometric proofs, including proofs by contradiction and proofs involving coordinate geometry. Use and compare a variety of ways to present deductive proofs, such as two-column and indirect proofs	
MA.912.G.4.6	**Prove that triangles are congruent or similar and use the concept of corresponding parts of congruent triangles**	2
MA.912.D.6.4	Use methods of direct and indirect proof and determine whether a short proof is logically valid	
MA.912.G.8.5	Write geometric proofs, including proofs by contradiction and proofs involving coordinate geometry. Use and compare a variety of ways to present deductive proofs, such as two-column and indirect proofs	
MA.912.G.4.7	**Apply inequality theorems: triangle inequality, inequality in one triangle, and the Hinge theorem**	1
MA.912.G.5.4	**Solve real-world problems involving right triangles**	4
MA.912.G.5.1	Prove and apply the Pythagorean Theorem and its converse	
MA.912.G.5.2	State and apply the relationships that exist when the altitude is drawn to the hypotenuse of a right triangle	
MA.912.G.5.3	Use special right triangle s (30° - 60° - 90° and 45° - 45° - 90°) to solve problems	
MA.912.G.6.5	**Solve problems using measures of circumference, arc length, and areas of circles and sectors**	3
MA.912.G.6.2	Define and identify: circumference, radius, diameter, arc, arc length, chord, and concentric circles	
MA.912.G.6.4	Determine and use measures of arcs and related angles (central, inscribed, and intersections of secants and tangents)	
MA.912.G.6.6	**Given the center and the radius, find the equation of a circle in the coordinate plane or given the equation of a circle in center-radius form, state the center and the radius of the circle**	2
MA.912.G.6.7	Given the equation of a circle in center-radius form or given the center and the radius of a circle, sketch the graph of the circle	
MA.912.G.8.4	**Make conjectures with justifications about geometric ideas. Distinguish between information that supports a conjecture and the proof of a conjecture**	2
MA.912.G.7.1	**Describe and make regular, non-regular, and oblique polyhedra, and sketch the net for a given polyhedron and vice versa**	3
MA.912.G.7.2	Describe the relationships between the faces, edges, and vertices of polyhedra	
MA.912.G.7.5	**Explain and use formulas for lateral area, surface area, and volume of solids**	4
MA.912.G.7.4	Identify chords, tangents, radii, and great circles of spheres	
MA.912.G.7.6	Identify and use properties of congruent and similar solids	
MA.912.G.7.7	**Determine how changes in dimension affect surface area and volume of common solids**	4
MA.912.G.2.7	Determine how changes in dimensions affect the perimeter and area of common geometric figures	
MA.912.D.6.2	**Find the converse, inverse, and contrapositive of a statement**	3
MA.912.D.6.3	Determine whether two propositions are logically equivalent	
MA.912.T.2.1	**Define and use the trigonometric ratios (sin, cos, tan) in terms of angles of right triangles**	5