

Wisconsin High School Geometry  
 Mathematics Performance Standard C, 2009

Geometry Performance Standard	Boardworks High School Geometry presentation
C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by constructing physical models	–
drawing precisely with paper-and-pencil, hand calculators, and computer software	Constructing bisecting lines and angles Constructing triangles Using construction
using appropriate transformations (e.g., translations, rotations, reflections, enlargements)	Combining transformations Congruence and similarity Dilation Reflection and rotational symmetry Reflection symmetry Reflection symmetry in 3-D shapes Rotation Rotational symmetry Rotational symmetry in 3-D shapes Tessellation The center of dilation Translation
using reason and logic	–

	<ul style="list-style-type: none"> <li>Angles in a circle</li> <li>Applying trigonometry</li> <li>Area formulas and calculations</li> <li>Calculating sides of a triangle</li> <li>Cylinders, cones and spheres</li> <li>Edges of rectangular prisms</li> <li>Finding the diagonal in a rectangular prism</li> <li>Finding the distance between two points using the Pythagorean Theorem</li> <li>Finding the height of triangles using the Pythagorean Theorem</li> <li>Finding the length of diagonals using the Pythagorean Theorem</li> <li>Identifying right triangles</li> <li>Interior and exterior angles of polygons</li> <li>Parts of a circle</li> <li>Prisms</li> <li>Pyramids</li> <li>Quadrilateral</li> <li>Radius and circumference</li> <li>Similar right triangles</li> <li>Special right triangles</li> <li>Surface area of rectangular prisms</li> <li>The area of a circle</li> <li>The area of a sector</li> <li>The area of a triangle</li> <li>The Pythagorean Theorem</li> <li>The length of an arc</li> <li>Using area formulas</li> <li>Using circle properties</li> <li>Using construction</li> <li>Using angles</li> </ul>
C.12.2 Use geometric models to solve mathematical and real-world problems	
C.12.3 Present convincing arguments by means of demonstration, informal proof, counter-examples, or any other logical means to show the truth of	

statements (e.g., these two triangles are not congruent)	Congruence and similarity Angles in a circle Identifying right triangles Using area formulas Using circle properties Using construction Using congruence and similarity
generalizations (e.g., the Pythagorean theorem holds for all right triangles)	Interior and exterior angles of polygons Parts of a circle The Pythagorean Theorem The Triangle Inequality Theorem Pythagorean triples Triangles
C.12.4 Use the two-dimensional rectangular coordinate system and algebraic procedures to describe and characterize geometric properties and relationships such as slope, intercepts, parallelism, and perpendicularity	Linear graphs Slopes and intercepts Parallel and perpendicular lines
C.12.5 Identify and demonstrate an understanding of the three ratios used in right-triangle trigonometry (sine, cosine, tangent)	Applying Trigonometry Inverses in trigonometry Right triangles The cosine ratio The sine ratio The tangent ratio Trigonometry summary Opposite and adjacent sides