

North Dakota Priority Standards and Proficiency Scales

MATHEMATICS
Priority Standards

GEOMETRY

Domain	Code	Standard Description	Essential Vocabulary
Circles	HS-G.C.5	Explain and use the formulas for arc length and area of sectors of circles.	sector, area, radian
	HS-G.CO.5	Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.	
	HS-G.CO.8	Prove two triangles are congruent using the congruence theorems such as ASA, SAS, and SSS.	ASA, SSS, SAS
	HS-G.CO.9	Prove and apply theorems about lines and angles.	transversal, alternate interior angles, corresponding angles, perpendicular bisector, equidistant, vertical angles
	HS-G.CO.10	Prove and apply theorems about triangle properties	isosceles triangle, base angles, midpoint, median
Congruence	HS-G.CO.11	Prove and apply theorems about parallelograms	parallelogram, diagonal, bisect, rectangle, rhombus, quadrilateral, square
	HS-G.GMD.1	Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone.	prism, cylinder, pyramid, cone, sphere
	HS-G.GMD.3	Know and apply volume formulas for prisms, cylinders, pyramids, cones, and spheres to solve problems.	
	HS-G.GPE.5	Develop and verify the slope criteria for parallel and perpendicular lines. Apply the slope criteria for parallel and perpendicular lines to solve geometric problems using algebra.	
	HS-G.GPE.6	Use coordinates to find the midpoint or endpoint of a line segment. (+) Find the point on a directed line segment between two given points that partitions the segment in a given ratio.	
Expressing Geometric Properties with Equations	HS-G.GPE.7	Use coordinates to compute perimeters of polygons and areas of triangles, parallelograms, trapezoids and kites.	distance formula, perimeter, polygon, trapezoid, kite



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Similarity, Right Triangles, and Trigonometry	HS-G.SRT.5	Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	
	HS-G.SRT.8	Use special right triangles (30° - 60° - 90° and 45° - 45° - 90°), trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.	special right triangles

