Oklahoma Geometry with CalcChat® and CalcView®

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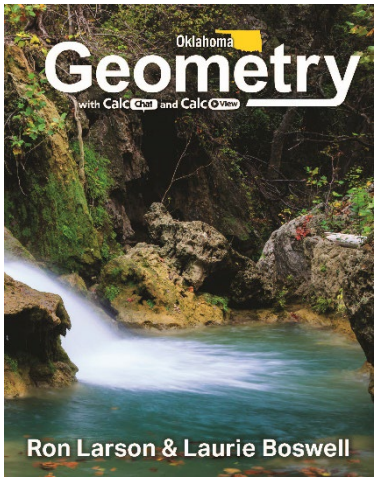
Correlated to the Oklahoma Academic Standards for Mathematics



ISBN: 9798888029770

Big Ideas Learning

Erie, Pennsylvania
www.bigideaslearning.com

Standard	Oklahoma Geometry with CalcChat® and CalcView®
Geometry	
Geometry: Reasoning & Logic (G.RL)	
G.RL.1.1 Use undefined terms, definitions, postulates, and theorems in logical arguments/proofs.	1.1 (pp. 3-9), 1.2 (pp. 11-18), 1.3 (pp. 19-26), 1.5 (pp. 35-44), 1.6 (pp. 45-52), 2.1 (pp. 63-72), 2.3 (pp. 81-86), 2.4 (pp. 87-94), 2.5 (pp. 95-100), 2.6 (pp. 101-110), 3.2 (pp. 127-132), 3.3 (pp. 133-140), 3.4 (pp. 141-148), 4.6 (pp. 207-212), 5.1 (pp. 223-230), 5.2 (pp. 231-236), 5.3 (pp. 237-242), 5.4 (pp. 243-250), 5.5 (pp. 251-258), 5.6 (pp. 259-266), 5.7 (pp. 267-272), 5.8 (pp. 273-278), 6.1 (pp. 291-298), 6.2 (pp. 299-308), 6.3 (pp. 309-316), 6.4 (pp. 317-322), 6.5 (pp. 323-330), 6.6 (pp. 331-336), 7.2 (pp. 355-362), 7.3 (pp. 363-372), 7.4 (pp. 373-382), 7.5 (pp. 383-392), 8.1 (pp. 403-412), 8.2 (pp. 413-418), 8.3 (pp. 419-428), 9.1 (pp. 447-454), 10.2 (pp. 519-526), 10.7 (pp. 555-560)
G.RL.1.2 Analyze and draw conclusions based on a set of conditions using inductive and deductive reasoning. Recognize the logical relationships between a conditional statement and its inverse, converse, and contrapositive.	2.1 (pp. 63-72), 2.2 (pp. 73-80)
G.RL.1.3 Assess the validity of a logical argument and give counterexamples to disprove a statement.	2.1 (pp. 63-72), 2.2 (pp. 73-80)
Geometry: Two-Dimensional Shapes (G.2D)	
G.2D.1.1 Use properties of parallel lines cut by a transversal to determine angle relationships and solve problems.	3.2 (pp. 127-132), 3.3 (pp. 133-140), 3.4 (pp. 141-148)
G.2D.1.2 Use the angle relationships formed by lines cut by a transversal to determine if the lines are parallel and verify, using algebraic and deductive proofs.	3.2 (pp. 127-132), 3.3 (pp. 133-140), 3.4 (pp. 141-148)
G.2D.1.3 Apply the properties of angles (corresponding, exterior, interior, vertical, complementary, supplementary) to solve problems using mathematical models, algebraic reasoning, and proofs.	1.6(pp. 45-52), 2.5 (pp. 95-100), 2.6 (pp. 101-110), 3.1 (pp. 121-126), 3.2 (pp. 127-132), 3.3 (pp. 133-140), 3.4 (pp. 141-148)

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G.2D.1.4 Apply theorems involving the interior and exterior angle sums of polygons to solve problems using mathematical models, algebraic reasoning, and proofs.	5.1 (pp. 223-230), 7.1 (pp. 347-354)
G.2D.1.5 Apply the properties of special quadrilaterals (square, rectangle, trapezoid, isosceles trapezoid, rhombus, kite, parallelogram) to solve problems involving angle measures and segment lengths using mathematical models, algebraic reasoning, and proofs.	7.2 (pp. 355-362), 7.3 (pp. 363-372), 7.4 (pp. 373-382), 7.5 (pp. 383-392)
G.2D.1.6 Use coordinate geometry and algebraic reasoning to represent and analyze line segments and polygons, including determining lengths, midpoints, and slopes of line segments.	1.2 (pp. 11-18), 1.3 (pp. 19-26), 1.4 (pp. 27-34), 3.5 (pp. 149-156), 5.1 (pp. 223-230), 5.8 (pp. 273-278), 6.1 (pp. 291-298), 6.2 (pp. 299-308), 6.3 (pp. 309-316), 6.4 (pp. 317-322), 7.2 (pp. 355-362), 7.3 (pp. 363-372), 7.4 (pp. 373-382), 7.5 (pp. 383-392)
G.2D.1.7 Apply the properties of polygons, and use them to represent and apply mathematical models involving perimeter and area (e.g., triangles, special quadrilaterals, regular polygons up to 12 sides, composite figures).	1.4 (pp.27-34), 9.7 (pp. 489-498), 11.3 (pp. 587-594), 11.4 (pp. 595-600)
G.2D.1.8 Apply the properties of congruent or similar polygons to solve problems using mathematical models and algebraic and logical reasoning.	5.2 (pp. 231-236), 5.4 (pp. 243-250), 5.5 (pp. 251-258), 5.7 (pp. 267-272), 8.1 (pp. 403-412), 8.2 (pp. 413-418), 8.3 (pp. 419-428), 8.4 (pp. 429-436), 9.3 (pp. 461-468)
G.2D.1.9 Construct logical arguments to prove triangle congruence (SSS, SAS, ASA, AAS and HL).	5.3 (pp. 237-242), 5.4 (pp. 243-250), 5.5 (pp. 251-258), 5.6 (pp. 259-266), 5.7 (pp. 267-272), 5.8 (pp. 273-278)
G.2D.1.10 Construct logical arguments to prove triangle similarity (AA, SSS, SAS).	8.2 (pp. 413-418), 8.3 (pp. 419-428)
G.2D.1.11 Use numeric, graphic, and algebraic representations of transformations in two dimensions (e.g., reflections, translations, dilations, rotations about the origin by multiples of 90˚) to solve problems involving figures on a coordinate plane and identify types of symmetry.	4.1 (pp. 167-174), 4.2 (pp. 175-182), 4.3 (pp. 183-190), 4.4 (pp. 191-198), 4.5 (pp. 199-206), 4.6 (pp. 207-212)
Geometry: Three-Dimensional Shapes(G.3D)	
G.3D.1.1 Represent, use, and apply mathematical models and other tools (e.g., nets, measuring devices, formulas) to solve problems involving surface area and volume of three-dimensional figures (prisms, cylinders, pyramids, cones,	12.1 (pp. 611-618), 12.2 (pp. 619-628), 12.3 (pp. 629-634), 12.4 (pp. 635-642), 12.5 (pp. 643-650), 12.6 (pp. 651-658), 12.7 (pp. 659-664), 12.8 (pp. 665-670)

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spheres, composites of these figures).	
G.3D.1.2 Use ratios derived from similar three-dimensional figures to make conjectures, generalize, and to solve for unknown values such as angles, side lengths, perimeter, and circumference of a face, area of a face, and volume.	12.2 (pp. 619-628), 12.3 (pp. 629-634), 12.4 (pp. 635-642), 12.5 (pp. 643-650), 12.6 (pp. 651-658)
Geometry: Circles (G.C)	
G.C.1.1 Apply the properties of circles to solve problems involving circumference and area, using approximate values and in terms of pi, using algebraic and logical reasoning.	11.1 (pp. 573-580), 11.2 (pp. 581-586)
G.C.1.2 Use the distance and midpoint formula, where appropriate, to recognize and write the radius *r*, center (*h,k*), and standard form of the equation of a circle $(x-h)^2+(y-k)^2=r^2$ with and without graphs.	10.7 (pp. 555-560)
G.C.1.3 Apply the properties of circles and relationships among angles; arcs; and distances in a circle among radii, chords, secants, and tangents to solve problems using algebraic and logical reasoning.	10.1 (pp. 551-518), 10.2 (pp. 519-526), 10.3 (pp. 527-532), 10.4 (pp. 533-540), 10.5 (pp. 541-548), 10.6 (pp. 549-554)
Geometry: Right Triangle Trigonometry (G.RT)	
G.RT.1.1 Apply the distance formula, the Pythagorean theorem, and the Pythagorean theorem converse (approximate and exact values, including Pythagorean triples) to solve problems, using algebraic and logical reasoning and mathematical models.	1.3 (pp. 19-26), 9.1 (pp. 447-454)
G.RT.1.2 Verify and apply properties of right triangles, including properties of 45-45-90 and 30-60-90 triangles, to solve problems using algebraic and logical reasoning.	9.2 (pp. 455-460)
G.RT.1.3 Use the definition of the trigonometric functions to determine the sine,	9.4 (pp. 469-474), 9.5 (pp. 475-482), 9.6 (pp. 483-488)

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cosine, and tangent ratio of an acute angle in a right triangle. Apply the inverse trigonometric functions to find the measure of an acute angle in right triangles.	
G.RT.1.4 Apply the trigonometric functions as ratios (sine, cosine, tangent) to find side lengths in right triangles in mathematical models, including the coordinate plane.	9.4 (pp. 469-474), 9.5 (pp. 475-482), 9.6 (pp. 483-488)