

Course Name	Covered Topics	Learning Time
Get Ready	Course Introduction Video, Prerequisite Check, Who Should Take This Course, Help Us Know More about You, How to Use This Course	10 - 20 mins
Day 1 Challenge	Exterior and interior angles; Degrees in a circle; Symmetry; Sum of angles in triangle; Altitude and area of an equilateral triangle; Pythagorean Thm; Simplifying radicals; Similar triangles and area scaling; 30°-60°-90° triangles; Trick for squaring numbers ending in 5	50 - 60 min
Day 2 Challenge	Regular octagons; Right isosceles triangles; Similar triangles; Pythagorean Thm; Simplifying radical denominators; Variable equations; Polygon area; Midpoints; Corresponding and alternate interior angles; Angle-chasing method	50 - 60 min
Day 3 Challenge	Areas of circular sections; Areas of intersections of circles; Radius; Equilateral triangles; Inscribed angles and arcs; Area of a triangle; 30°-60°-90° right triangles; Area of a lune; Ratios of areas of similar figures	50 - 60 min
Day 4 Challenge	Area of parallelograms; Altitude of a triangle; Special triangles (3-5-7, right, obtuse); Exterior angles; Manipulating diagrams; 30°-60°-90° triangles; Isosceles trapezoids; Factoring; Variable equations	45 - 55 min
Week 1 Challenge	40-minute-20 practice problem assessment of Day 1 to Day 4 materials	60 minutes (up to 4 tries in total)
Day 5 Challenge	Right trapezoids; 8-15-17 right triangles; Pythagorean Theorem; AAA Similarity and Scaling; Corresponding angles; Simplifying ratios; Kite area and diagonals; Angle chasing; Symmetry; Complementary angles	50 - 60 min
Day 6 Challenge	Inscribed and central angles; Inscribed Angle Thm; Isosceles triangles; Supplementary angles; Exterior Angle Thm; Variables; Arc measure; Subtended arcs; Secant lines; Intersecting Secant Angle Thm; Angles of intersecting chords	45 - 55 min
Day 7 Challenge	Chords; Midpoints; 8-15-17 and 3-4-5 right triangles; Ratios and scaling; Inscribed angles and arcs; Congruency; Pythagorean Thm; Similar triangles; Intersecting Chords Thm; Difference of squares; Common chords; Circumscribed circle on three points	45 - 55 min
Day 8 Challenge	Cyclic quadrilaterals; Arc measure; Inscribed angles; Degrees in a circle; Exterior Angle Thm; Supplementary angles; Intersecting Chord Angle Thm; Counting; Secant and tangent lines to a circle; Secant-Tangent Product Thm	50 - 60 min
Week 2 Challenge	40-minute-20 practice problem assessment of Day 5 to Day 8 materials	60 minutes (up to 4 tries in total)
Day 9 Challenge	Concentric circles; Right triangles; Pythagorean Thm; Symmetry; Angle between radius and tangent of a circle; Congruent triangles; Simplifying radicals; Externally tangent circles; Equilateral triangles; Areas of circular sectors	45 - 55 min
Day 10 Challenge	Angle between tangent and chord to a circle; Angle between radius and tangent; Intersecting Chord Angle Thm; Secant-tangent and tangent-tangent inscribed angles; Angles of cyclic quadrilaterals; Inscribed Angle Thm; Proof techniques	45 - 55 min
Day 11 Challenge	External and internal tangents to two circles; Parallel lines and corresponding angles; Pythagorean Thm; 5-12-13 and 3-4-5 right triangles; Similar triangles and scaling; Prime numbers; Manipulations of diagrams	45 - 55 min
Day 12 Challenge	Tangent-tangent segments to a circle; Pythagorean Theorem; Kites; Similar triangles; Angle bisector; Area and sums of pairs of quadrilateral with inscribed circle; Area of a triangle	45 - 55 min
Week 3 Challenge	40-minute-20 practice problem assessment of Day 5 to Day 8 materials	60 minutes (up to 4 tries in total)
Day 13 Challenge	Angle Bisector Thm; Isosceles and congruent triangles; Area and altitude of a triangle; Ratios and scaling; Golden ratio; Simplifying radical denominators; Proof of Angle Bisector Thm; Inscribed circle in a triangle; Estimation	50 - 60 min
Day 14 Challenge	Reflected angles; Minimizing path length; Triangle Inequality; Opposite interior angles; Congruency; Transversals and corresponding angles; Pythagorean Theorem; 3-D path length; Manipulating 3-D diagrams; Estimation	45 - 55 min
Day 15 Challenge	Triangle Inequality; Counting; Case analysis	45 - 55 min
Day 16 Challenge	Special triangles; Area of a triangle; Pythagorean triples; Scaling; Proof of Heron's Formula; semiperimeter; Pythagorean Thm; Polynomials; Common chord to two circles; 30°-60°-90° triangle	55 - 65 min
Week 4 Challenge	40-minute-20 practice problem assessment of Day 1 to Day 4 materials	60 minutes (up to 4 tries in total)