

Course Outline

ADV GEOMETRY

Unit 1: Points, Lines, Planes

- Measuring Segments and Angles
- Basic Constructions
- Distance and Midpoint
- ★ Unit 1 Test

Unit 2: Proofs

- Conditional Statements
- Writing Proofs
- ★ Project/test

Unit 3: Parallel/Perpendicular

- Parallel Lines and transversals
- Proving Lines Parallel
- Slope (Parallel/Perpendicular)
- ★ Checkpoint #1

Unit 4: Transformations

- Reflections
- Translations
- Rotations
- Classification of Rigid Motions
- Dilations
- ★ Unit 4 Test

Unit 6: Congruent Triangles

- Isosceles and Equilateral Triangles
- Triangle Angle Sums
- ★ Unit 6A Test
- Congruent Triangles
- Proving Congruence - SSS, SAS
- Proving Congruence - ASA, AAS
- ★ Unit 6B Test

Unit 5: Similarity

- Proving Triangles Similar
- Similarity in Right Triangles
- Proportions in Triangles
- ★ Checkpoint #2

Unit 7: Pythagorean Theorem

- Rewriting Radical Expressions
- Operations with Radical Expressions
- Pythagorean Theorem
- ★ Unit 7 Test
(End of Quarter 1)

Unit 8: Right Triangle Trig

- Right Triangles and Pyth. Theorem
- Trigonometric Ratios
- Problem Solving with Trig
- ★ Checkpoint #3

Course Outline

ADV GEOMETRY

Unit 9: Quadrilaterals

- Polygon Angle Sum Theorems
- Parallelograms
- Tests for Parallelograms
- Properties of Special Parallelograms
- Conditions of Special Parallelograms
- Kites and Trapezoids

★ Unit 9 test

Unit 13: Area

- Areas of Parallelograms
- Areas of Triangles, Trapezoids, Rhombi
- Areas of Regular Polygons

★ Unit 13 Test

Unit 10: Circles

- Circles in the Coordinate Plane
- Area and Sectors
- Chords
- Inscribed Angles
- Secant Lines and Segments
- Lines tangent to a Circle

★ Checkpoint #4

Unit 14: Surface Area and Volume

- Three Dimensional Figures
- SA/V of Prisms and Cylinders
- SA/V of Pyramids and Cones
- SA/V of Spheres

★ Unit 14 Test

Unit 11: Univariate Statistics

- Analyzing Data Displays
- Comparing Data Sets
- Interpreting Data Displays
- Standard Deviation
- Organizing Data Sets

★ Project

Unit 12: Bivariate Statistics

- Scatterplots and Lines of Best Fit
- Analyzing Lines of Fit

★ Checkpoint #5