

Geometry Regents: Units/Topics List

Can you identify the topic/lesson for each regents exam question?

UNIT 1: ANGLE RELATIONSHIPS

- 1-1: Basic Geometric Terms
- 1-2: Angle Relationships
- 1-3: Parallel Lines cut by a Transversal
- 1-4: Algebraic Parallel Lines cut by a Transversal
- 1-5: Parts and Types of Triangles
- 1-6: Exterior Angle Theorem
- 1-7: Attributes of Polygons

UNIT 2: TRANSFORMATION AND CONGRUENCE

- 2-1: Intro. to Transformations
- 2-2: Translations of Coordinate Plane
- 2-3: Rotations on the Coordinate Plane
- 2-4: Reflections on the Coordinate Plane
- 2-5: Intro. to Dilations
- 2-6: Compositions of Transformations
- 2-7: Compositions of Transformations with Dilations

UNIT 3: TRIANGLES AND SIMILARITY

- 3-1: Side Splitter and Dilation Theorem
- 3-1: Side Splitter (Day 2)
- 3-2: Ratios between Figures and Within Figures
- 3-3: Geometric Mean
- 3-4: Pythagorean Theorem
- 3-5: Intro. To Trigonometry
- 3-6: Using Trig Ratios to find Missing Side Lengths
- 3-7: Using Trig Ratios to find Missing Angles
- 3-8: Application of Trig (Missing Angles and Sides)
- 3-9: Applying Tangents
- 3-10: Law of Sines

UNIT 4: CIRCLES

- 4-1: Writing Equations of Circles
- 4-1: (Day 2): Equations of Circles
- 4-2: Arcs, Central and Inscribed Angles in Circles
- 4-3: More Angle Relationships in Circles
- 4-4: Segments in Circles
- 4-5: Arc Length
- 4-6: Area of a Sector

UNIT 5: 2D and 3D FIGURES

- 5-1: Area of Composite Figures
- 5-2: Definitions and Cross Sections of 3D Figures
- 5-3: Volumes of Prisms and Cylinders
- 5-4: Volumes of Pyramids and Cones
- 5-5: Volumes of Spheres and Hemispheres
- 5-6: Density and Volume
- 5-7: Population Density

UNIT 6: LINES

- 6-1: Distance Formula
- 6-2: Midpoint
- 6-3: Partition of a Line Segment
- 6-4: Writing Equations of Lines
- 6-5: Parallel Lines
- 6-6: Perpendicular Lines
- 6-7: Properties of Dilations and Equations of Lines

UNIT 7: QUADRILATERALS and COORDINATE GEOMETRY PROOFS

- 7-1: Properties of Parallelogram Diagrams
- 7-2: Attributes of Special Quadrilaterals
- 7-3: Coordinate Geometry Proofs (Quadrilaterals)
- 7-3 (Day 2): Coordinate Geometry Proofs (Triangles)

UNIT 8: CONSTRUCTIONS

- Packet I: Basic Constructions
- Packet II: Advanced Constructions
- Packet III: Regents Exam Questions

UNIT 9: FORMULA GEOMETRIC PROOFS

- 9-1: Introduction to Geometric Proofs
- 9-2: Basic Fundamentals of Geometric Proofs
- 9-3: Triangle Congruence
- 9-4: Triangle Congruency Proofs
- 9-5: Quadrilateral Geometric Proofs
- 9-6: CPCTC Geometric Proofs