



Semester 1

Term 1

- **Introduction to Geometry**
 - Points, Lines, Planes, Postulates
 - Inductive and Deductive Reasoning
 - Conditional and Bi-Conditional Statements
 - Distance and Midpoint
- **Transformations**
 - Reflections
 - Translations
 - Rotations
 - Compositions and Symmetry
- **Angles**
 - Angle Relationships
 - Parallels and Transversals
 - Slopes and Equations of Lines
- **Triangles**
 - Definitions and Theorems
 - Congruency
 - Types of Triangles

Term 2

- **Similarity**
 - Proportions, Ratios, and Geometric Mean
 - Triangles
 - Dilations and Scale Factor
 - Radicals
- **Right Triangles**
 - Pythagorean Theorem
 - Special Right Triangles
 - Trigonometric Ratios
 - Applications

Semester Review and Exam



Semester 2

Term 3

- **Relationships in Triangles**
 - Special Segments
 - Inequalities in Triangles
 - **Quadrilaterals**
 - Polygons of n-sides
 - Parallelograms and Rectangles
 - Squares and Rhombi
 - Kites and Trapezoids
 - **Circles**
 - Circumference and Area
 - Angles and Segments
 - Arc Length
 - Sector Area
 - Equations
 - **Volume**
 - Area of a Regular Polygon
 - Volume: Prisms, Cylinders, Pyramids, Cones, Composite Figures
 - Problem Solving
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Term 4

- **Surface Area**
 - Perimeter of a Regular Polygon
 - Surface Area: Prisms, Cylinders, Pyramids, Cones, Composite Figures
 - Spheres and Spherical Geometry
 - Cross Sections and Solids of Rotation
 - Problem Solving
- **Probability**
 - Geometric Probability
 - Set Theory
 - Permutations and Combinations
 - Mutually Exclusive and Overlapping Events
 - Conditional Probability
 - Independent and Dependent Events
- **Unit Circle**
 - Degrees around the Unit Circle: Complementary, Supplementary, Reference Angles, Negative Angles
 - Radians around the Unit Circle: Complementary, Supplementary, Reference Angles, Negative Angles
 - Finding exact values of Sin, Cos, Tan, Csc, Sec, Cot

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