**Geometry Sequence/Syllabus**

**Chapter 1**

1.1 Points, lines and Planes

1.2 & 1.3 Segment & Angle Measure

1.4 Angle Pairs (Vertical, Linear, Adjacent)

1.5 Area, Perimeter/Circumference: Rectangle, Triangle, Circle

1.6 Midpoint & Distance Formulas

1.7 Transformation in Coordinate Plane

**Chapter 3**

3.1 Angle Pairs (Corresponding, Alternate Interior & Exterior, Same Side Interior)

3.2 Parallel Lines (and angle pairs)

3.4 Perpendicular Lines

3.5 & 3.6 Slopes & Equation of Lines

**Chapter 4 (without proof)**

4.1 Classify Triangles (Scalene, Isosceles, Equilateral, Right, Obtuse, Acute)

4.2 Angles in Triangles (Sum=180…)

4.3 Congruent Triangles (Congruency Statement, not proof)

4.8 Isosceles and Equilateral Triangle properties

**Chapter 6.1**

Properties of Polygons (Interior and exterior angle sums)

**Chapter 5 (2nd half)**

5.5 & 5.6 Inequalities in 1 or 2 triangles

5.7 Pythagorean Theorem & Converse

5.8 Special Right Triangles

**Chapter 9**

9.1 Area, Perimeter: Parallelogram, Trapezoid, Rhombus, Kite

9.1 Area: with Algebraic Expressions as lengths/or areas

9.2 Area of Regular Polygon (Equilateral Triangle, Square, Hexagon – no trig)

9.3 Area of Composite Figures

9.4 Area & Perimeter in Coordinate Plane

9.5 Effect of Changing Dimensions

9.6 Geometric Probability

**Chapter 10**

10.1 Solid Geometry: Nets & Cross Sections

10.3 Formulas in 3 Dimensions (Euler’s, Diagonal of Rectangular Prism)

10.6 Volume of Prism & Cylinder

10.7 Volume of Pyramid & Cone

10.4 Surface Area of Prism & Cylinder

10.5 Surface Area of Pyramid & Cone

10.8 Volume & Surface Area of Sphere

Extension \*Spherical Geometry

**MIDTERM EXAM**

**Geometry Sequence/Syllabus cont.**

**Chapter 7**

7.1 Ratio & Proportion

7.2 Ratios in Similar Polygons

7.5 Using Proportional Relationships

**Chapter 2**

2.1 Inductive Reasoning (Patterns)

2.2 Conditional Statements (Converse, Inverse, Contrapositive)

2.3 Deductive Reasoning (Detachment & Syllogism)

2.4 Biconditional Statements (iff: If and Only If)

2.5 Algebraic Proof

2.6 Geometric Proof (Linear Pair Theorem)

2.7 Flowchart & Paragraph Proofs (Vertical Angle Theorem)

**Section 3.3**

Proving Lines Parallel

**Chapter 4**

4.4 & 4.5 Proving Triangles Congruent **(SSS, SAS, ASA, AAS, HL)**

**4.6 CPCTC:** Corresponding Parts ofCongruent Triangles areCongruent

**Chapter 6**

6.2 Parallelogram Properties

6.3 Proving Quadrilaterals are Parallelograms

6.4 Special Parallelograms (rectangles, rhombuses & squares)

6.5 Proving Parallelograms are rectangles, rhombuses and squares

6.6 Kite & Trapezoid properties (isosceles trapezoid)

**Section 7.3, 7.4**

7.3 Proving Triangles Similar **(AA, SSS, SAS)**

7.4 Applying Properties of Similar Triangles

**Chapter 8**

8.1 Similarity in Right Triangles (Geometric means)

8.2 Trigonometric Ratios

8.3 Solving Right Triangles

8.4 Applications: Angles of Elevations and Depression

**Extension \***Trigonometry in the unit circle

8.5 \*Law of Sines

**Geometry Sequence/Syllabus cont.**

**Chapter 11**

11.1 & 11.2 Circles, Tangents, Arcs and Chords

11.3 Sector Area & Arc Length

11.4 Central & Inscribed Angles

11.5 Angle Relationships in Circles

11.6 Segment Relations in Circles

**C:\Documents and Settings\gchandler\Local Settings\Temporary Internet Files\Content.IE5\VOH7FV8U\MCj04414680000[1].pngChapter 5 (**1st half – Triangle Centers)

5.1 Perpendicular and Angle Bisectors

5.2 Circumcenter and Incenter

5.3 Median and Centroid

5.3 Altitude and Orthocenter

5.4 Triangle Midsegment

Honors only \*

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