Geometry 2nd Semester Final Study Guide

**You will be allowed one (1) notecard filled out with handwritten information of your choice. The following is a recommendation on what to focus on as you write notes on your card. Remember, there are quite a few formulas in this chapter (especially lateral/surface area and volume), so be sure to use the space on your card wisely.**

**(Chapter 7)**

- How to set up ratios and solve proportions

- How to set up ratios with similar polygons and solve for missing values

- How to prove triangles similar

 - AA~ Postulate - SAS~ Theorem

 - SSS~ Theorem - Properties of Similar Right Triangles

**(Chapter 8)**

- How to use the Pythagorean Theorem and its Converse

 - $a^{2}+ b^{2}=c^{2}$

- The properties of Special Right Triangles

 - 45-45-90 triangles - 30-60-90 triangles

- How to properly use Sine/Cosine/Tangent ratios

 - SOH / CAH / TOA

- How to use angles of elevation and angles of depression

**(Chapter 9)**

- The various properties of images/figures

 - Translation - Reflection

 - Rotation - Symmetry

 - Dilation - Tessellation

**(Chapter 10)**

- How to use the formulas for areas of different figures

 - Parallelograms/Triangles

 - Trapezoids/Rhombuses/Kites

 - Regular Polygons

 - Using Trigonometry to find area

 - Circles/Arcs/Sectors

**(Chapter 11)**

- The various properties of space figures

 - Euler’s Formula (F + V = E + 2)

- Lateral Area/Surface Area of:

 - Prisms/Cylinders

 - Pyramids/Cones

 - Spheres

- Volumes of:

 - Prisms/Cylinders

 - Pyramids/Cones

 - Spheres

**(Chapter 12)**

- How to use the various properties of:

 - Tangent Lines

 - Chords and Arcs

 - Inscribed Angles

 - Secants