**Geometry Chapter 7 Study Guide**

**1.** What are the four (4) properties of proportions? Assume $\frac{a}{b}=\frac{c}{d}$

2. What is the process for solving a proportion? Give an example and show every step.

3. Which two requirements must be met in order for figures to be considered similar?

4. Draw an example of similar figures. Correctly write the similarity statement and give the similarity ratio.

5. What is the golden ratio?

6. What are the three ways we can prove triangles to be similar? Draw an example of each.

7. If we are given similar figures, how do we solve for the length/variable of an unknown side? Draw an example of this and show the process.

8. What is the shortcut for finding geometric mean? Give an example.

9. What is the process for finding the altitude of a right triangle? Draw an example and show how to find the altitude with the proportion and the shortcut.

10. What is the process for finding the leg of a right triangle? Draw an example and show how to find the leg with the proportion and the shortcut.

11. How do we use the side-splitter theorem to set up proportions? Draw an example.

12. How do we set up proportions when we have three or more parallel lines and two transversals? Draw an example.

13. How do we set up proportions with the triangle-angle bisector theorem? Draw an example.