Due: 3/21/17 at 5:00PM

Instructions: Your answers to the following questions do not need to be lengthy or written in complete sentences, but should reflect preparation for our discussion about Chapter 7 at the beginning of class.

Questions:

1. What is the difference between a ratio and a proportion?

   A ratio is the quotient of two quantities. A proportion is an equation stating that two ratios are equal.

2. When writing a proportion to solve an application, how can you make sure that you have written the proportion correctly?

   Write the four quantities in the proportion with units attached, making sure that the numerators have matching units and the denominators have matching units. Then drop the units when solving the proportion by using cross products.

3. How are the definitions of congruent and similar polygons alike? How are they different?

   In both congruent and similar polygons, corresponding angles are congruent. In congruent polygons, corresponding sides are also congruent, while in similar polygons, they are proportional.

4. What is the scale factor between two congruent polygons?

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5. Some geometry textbooks use an AAA Similarity Postulate, rather than the AA Similarity Postulate, and then call the AA condition a corollary. Why is that approach equivalent to just using the AA Postulate, as in your textbook?

   By the Third Angles Theorem, if two triangles have two pairs of congruent angles, the third angles will also be congruent, so AA is equivalent to AAA.

6. What is the difference between the SSS Congruence Theorem and the SSS Similarity Postulate?

   In the SSS Congruence Postulate, all three pairs of corresponding sides must be congruent, while in the SSS Similarity Theorem, corresponding sides are proportional.

7. Given two numbers, how can you calculate their arithmetic mean (average)? How do you calculate their geometric mean?

   To calculate the arithmetic mean, add the two numbers and divide the sum by 2. To calculate the geometric mean, multiply the two numbers and take the square root of the product.

Muddiest Point:

What questions do you have about the notes you took in Chapter 7, or anything from this week?
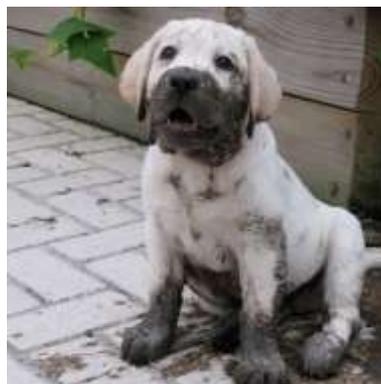
MML Homework Questions:

Are there any MML homework problems from Chapter 7 that you would like to discuss?