## MAT 222-840 Discussion Questions for Chapter 10

### Due: 6/28/17 at 4:00PM

**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 10 at the beginning of class.

### **Questions**:

- 1. Is there any type of polygon for which all the interior angles and all the exterior angles are congruent to each other? If so, must it be a regular polygon? Explain.
- 2. In a tessellation made up of polygons, why must the sum of the measures of the angles at every vertex be 360°?
- 3. Can the formulas for the area of a rectangle, a rhombus, and a parallelogram be used to find the area of a square? Explain.
- 4. How can you find the measure of a central angle of a regular polygon? Describe how you would do this in words and then write an expression for the measure of a central angle of an *n*-gon.
- 5. When comparing measurements of similar figures, why do we square the scale factor to find the ratio of their areas, but not to find the ratio of their perimeters?
- 6. Write a formula for the area of a semicircle. Why isn't it necessary to memorize this formula?

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Summer 2017

## **Muddiest Point:**

What questions do you have about the notes you took in Chapter 10, or anything from this week?



### **MML Homework Questions:**

Are there any MML homework problems from Chapter 10 that you would like to discuss?