## MAT 222-840 Discussion Questions for Chapter 5

### Due: 6/12/17 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 5 at the beginning of class.

#### **Questions**:

- 1. What does it mean when we say that a point is equidistant from two lines?
- 2. How is the location of the circumcenter of a triangle related to the type of triangle (acute, right, or obtuse)?
- 3. In what type of triangle are circumcenter and incenter at the same point? In this case, are the circumcenter and incenter at the center of the same circle? Explain.
- 4. How is the location of the orthocenter of a triangle related to the type of triangle (acute, right, or obtuse)?
- 5. In what type of triangle are the three medians the same segments as the three perpendicular bisectors, the three angle bisectors, and the three altitudes? What does this tell you about the four types of centers for this type of triangle?
- 6. How is the statement "the shortest distance between two points in on a straight line" related to the Triangle Inequality Theorem?

# MAT 222-840 **Discussion Questions for Chapter 5**

Summer 2017

## **Muddiest Point:**

What questions do you have about the notes you took in Chapter 5, or anything from this week?



## **MML Homework Questions:**

Are there any MML homework problems from Chapter 5 that you would like to discuss?