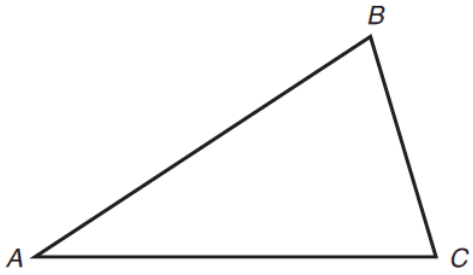
Name: _____

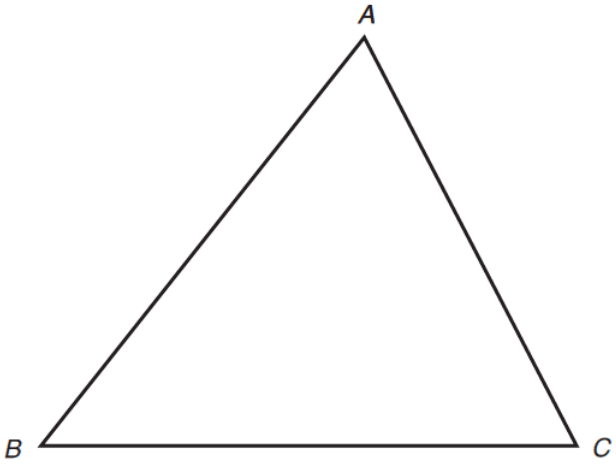
1.7 – Points of Concurrency

Past due on: _____ Period:_____

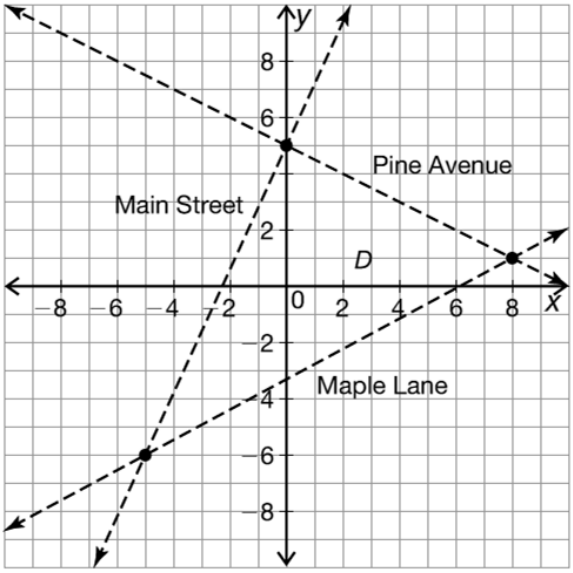
1. Construct the circumcenter of $\triangle ABC$.



2. Construct the centroid of $\triangle ABC$.

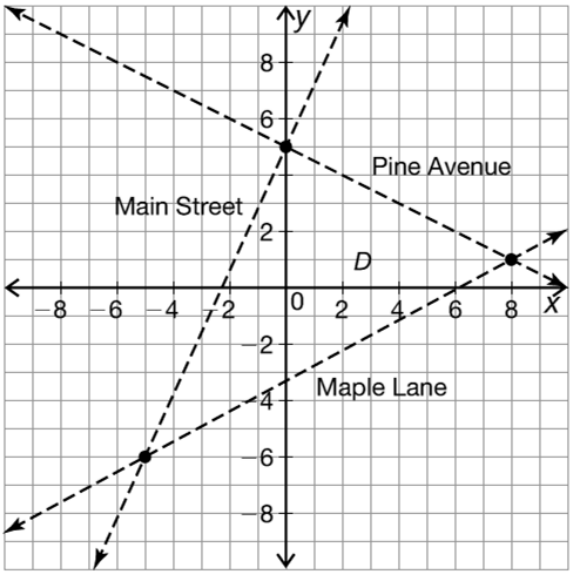


3. A McDonalds is to be built at a location that is equidistance from all three roads shown.
   a. Determine the location of the restaurant by constructing the circumcenter.
   b. What are the approximate coordinates of this point?
   c. Calculate the distance from the intersection of Main Street and Pine Avenue to the approximate location of McDonalds.



CHAPTER REVIEW

4. What are the coordinates of the intersections of…
   a. Main Street and Pine Avenue?
   b. Pine Avenue and Maple Lane?
   c. Maple Lane and Main Street?
5. Determine the length of Maple Lane between Main Street and Pine Avenue.



6. What are the coordinates of the post office if it is located on Main Street between Pine Avenue and Maple Lane?

7. A park is located at $D(3, 1)$. Sidewalks run horizontally and vertically through this point. What are the equations of (a) the horizontal sidewalk, and (b) the vertical sidewalk?

8. Do Main Street and Pine Avenue run perpendicular to one another? Explain your reasoning.

9. A street is to be constructed so that it runs parallel to Pine Avenue and passes through the point $(-5, -6)$. Write an equation that would represent this street.

10. Suppose an earthquake really shook things up and translated all three streets right 4 units and down 6 units, what would be the new coordinates of the three intersections?