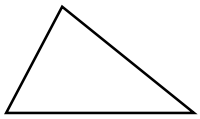
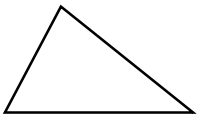
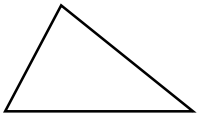
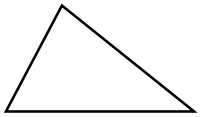
5.2 & 5.3 Homework

1. What does "concurrent" mean? Use a ruler and draw three concurrent lines.

2. Complete the chart:

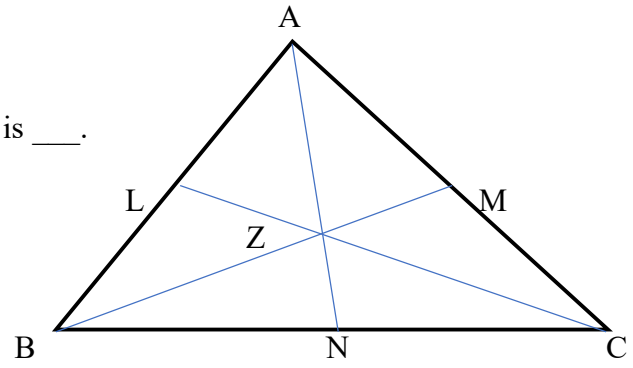
Type of Line	Draw one line	Name of Center	Purpose of Center
Perpendicular bisector			
Angle bisector			
Median			
Altitude			

3. Where is the circumcenter of a right triangle *ALWAYS* located?

4. Right triangle ABC has vertices at (0,0), (8, 0), and (0,6). What are the coordinate of the circumcenter of this triangle? (Hint: Draw the triangle on graph paper.)

5. The medians of a triangle are concurrent at a point that is _____ of distance from the vertex to the midpoint of the opposite side.

6. The lines inside the triangle are medians.
   Find the length of each segment:
   a. If AN is 12, then AZ is ____ and ZN is ___.
   b. If MC is 8, AC is ____.
   c. If LZ is 5, ZC is ___.



7. Describe the location of the orthocenter for each type of triangle:

   a. Acute triangle

   b. Right triangle

   c. Obtuse triangle.