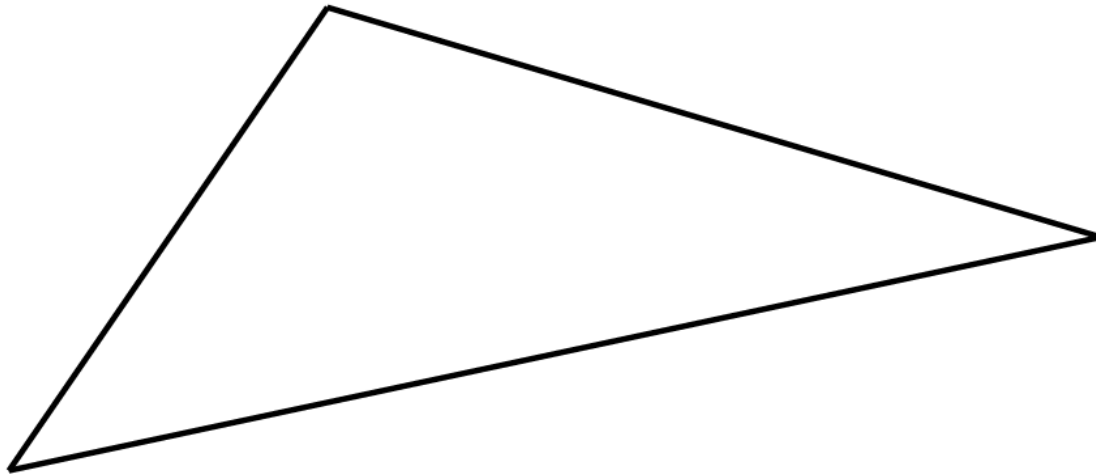


Name (print first and last) \_\_\_\_\_ Per \_\_\_\_\_ Date: 9/23 due 9/24  
**#7 Concurrency** **Unit 2 Geometry Regents 2013-2014 Ms. Lomac**

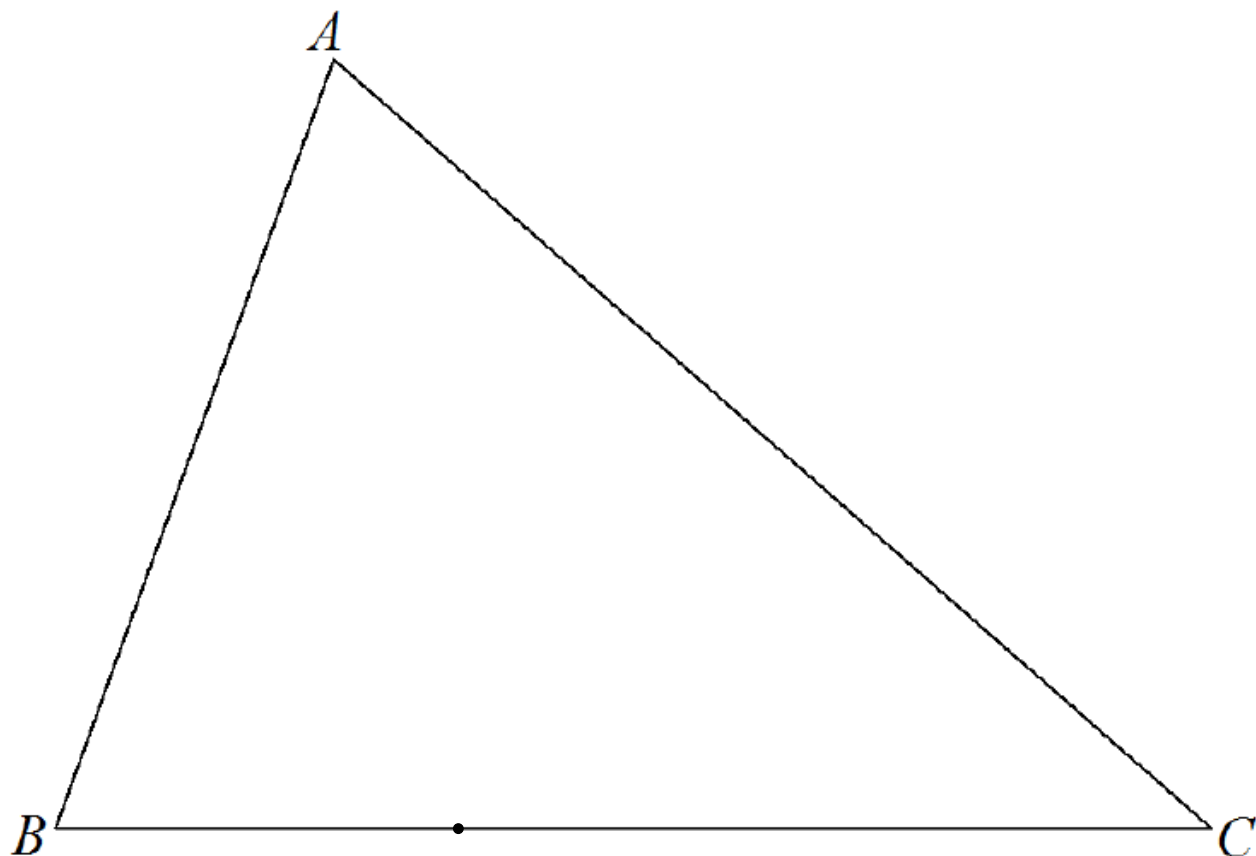
SLO: I can construct incenters and circumcenters and explain why they are concurrent.

- (1) Add the term **points of concurrency** to your notes.
- (2) Words for today: **points of concurrency** perpendicular bisector angle bisector radius
- (3) Construct 3 perpendicular bisectors, one for each side of the triangle. Use a different color for each construction.



- (4) The three perpendicular bisectors should meet in one point called a **point of concurrency**. If they don't intersect, make them longer until they do. Put the point of your compass on the point of concurrency and the pencil of your compass on one vertex of the triangle. Once your compass is set, make a circle. Did it pass through each vertex of the triangle? If it did, you found the point of **concurrency** called the **circumcenter** because the triangle is **circumscribed** by this circle.

(5) Construct 3 angle bisectors, one for each angle of the triangle. Use a different color for each angle bisector.



(6) The three angle bisectors should meet in one point called a **point of concurrency**. If they don't intersect, make them longer until they do. Put the point of your compass on the point of concurrency and the pencil of your compass on the dot on segment  $BC$ . Once your compass is set, make a circle. Did it barely touch each side of the triangle? If it did, you found the point of **concurrency** called the **incenter** because the circle is **inscribed** inside this triangle.

(1) DRAW:

a) Q is the midpoint of  $\overline{PC}$

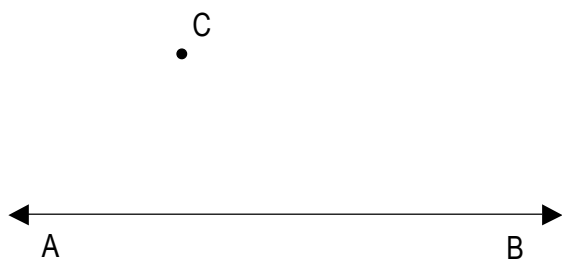
b)  $\overrightarrow{TR} \perp \overrightarrow{HL}$

c)  $\angle CDE$  is bisected by  $\overrightarrow{DZ}$

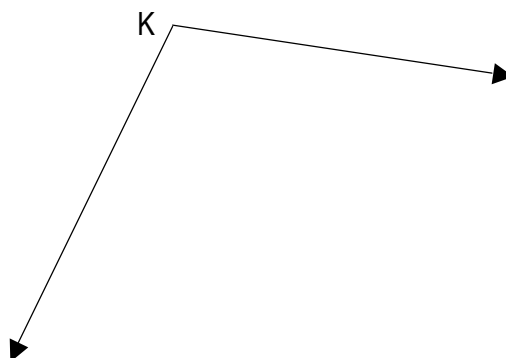
d) scalene triangle OWU

(2) CONSTRUCT:

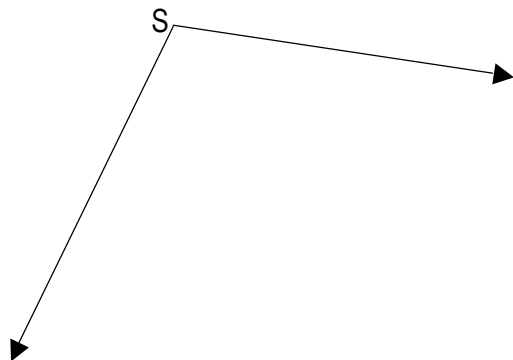
a) the line perpendicular to  $\overleftrightarrow{AB}$  through point C



b) the bisector of  $\angle K$



c) a copy of  $\angle S$



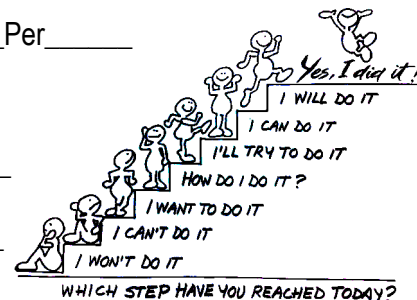
Exit Ticket Unit 2 Activity#7 Name \_\_\_\_\_ Per \_\_\_\_\_

To study for the test, I will. . . .

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_



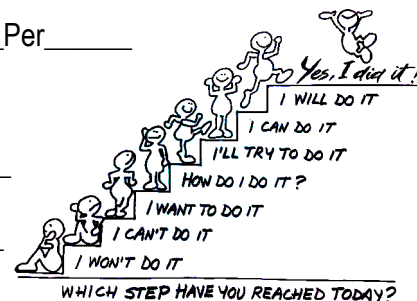
Exit Ticket Unit 2 Activity#7 Name \_\_\_\_\_ Per \_\_\_\_\_

To study for the test, I will. . . .

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_



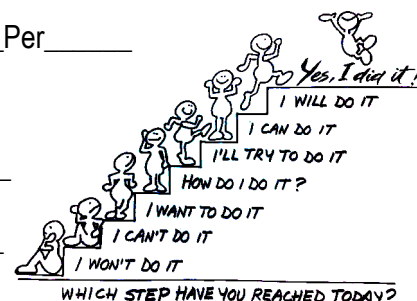
Exit Ticket Unit 2 Activity#7 Name \_\_\_\_\_ Per \_\_\_\_\_

To study for the test, I will. . . .

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_



Exit Ticket Unit 2 Activity#7 Name \_\_\_\_\_ Per \_\_\_\_\_

To study for the test, I will. . . .

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

