Name: _____Key_____

Date: _____ Period: _____

NOTE: For <u>every</u> construction that you do, you **MUST** leave the work, arcs, marks, etc. that you make along the way to earn full credit. Do **NOT** erase anything at the end of the problem to make your construction "look better."

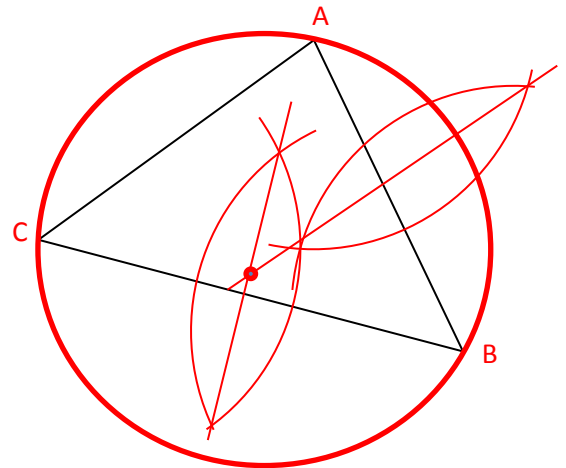1. Goal: Construct a circumscribed circle.

<u>Helpful steps</u>

1. Label given triangle ABC

2. Draw the perpendicular bisector of AB

3. Draw the perpendicular bisector of BC

4. Where the bisectors intersect, create O

5. With compass on O, set its width to C and draw a circle

(Circumscribed Circle)

Circumscribed - __Circle outside of triangle_____

Occurs when - _Perpendicular bisectors of each segment_

2. Goal: Construct an inscribed circle.

<u>Helpful steps</u>

1. With compass on a vertex, draw arc across each leg

2. From each intersection, draw an arc on the interior of the triangle

3. Draw angle bisector line

4. Repeat for one of the other vertices

5. Mark incenter where two lines intersect

6. From incenter to one side of triangle, set width of compass

7. Draw a circle

(Inscribed Circle)

Inscribed - __Circle inside of triangle_____

Occurs when -_Angle bisectors of each angle____