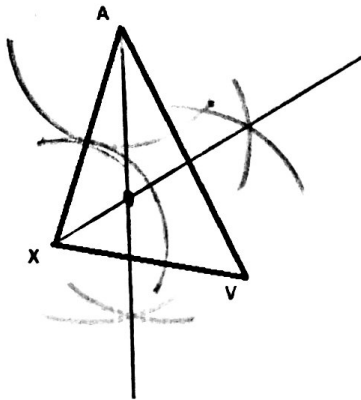


Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Class: \_\_\_\_\_

Geometry  
 Unit C  
 HW C-5

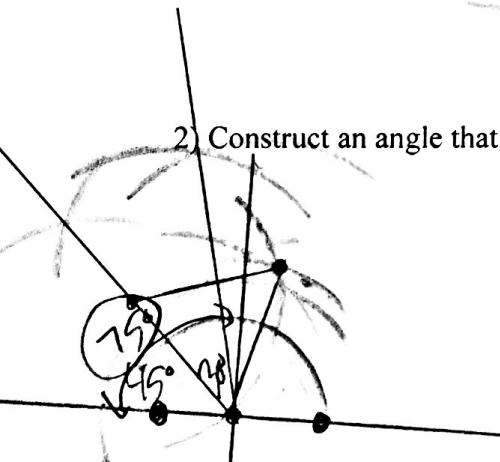
1) Using the following  $\triangle$  construct the <sup>incenter</sup> circumcenter (leave construction marks)

\*  $\angle$  bisectors

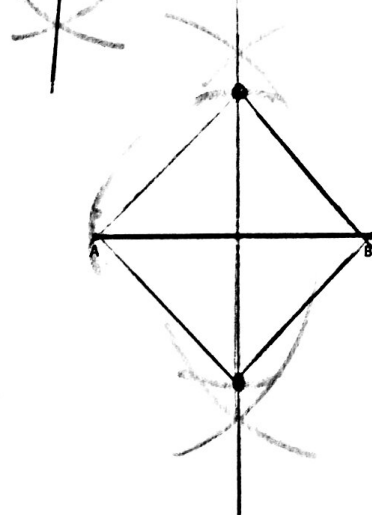


2) Construct an angle that is 75 degrees below.

$45^\circ + 30^\circ$   
 $\uparrow$   $\frac{1}{2}$  of  $\omega$        $\left(\frac{1}{2}$  of  $\omega\right)$   $\leftarrow$  equilateral  $\triangle$

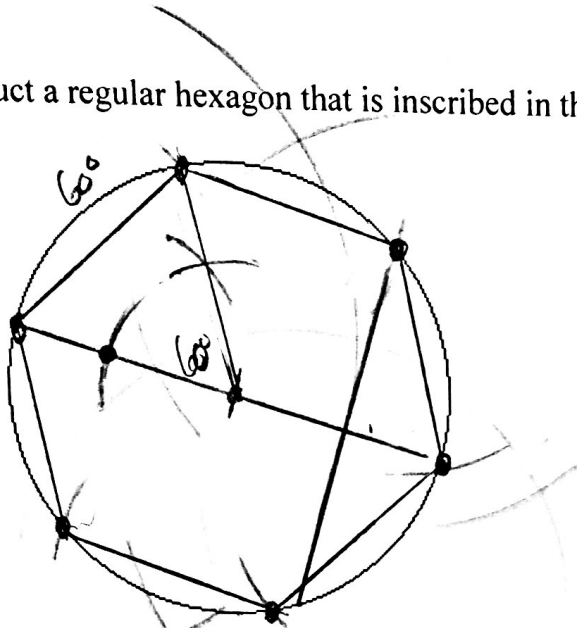


3) Construct a square that has segment AB as a diagonal.



\* Create  $\perp$  bisector to get  $\perp$  diags  
 \* make dist from pt of intersection to A. The same as pt of intersection to new endpts on new diag to make  $\square$  & bisected

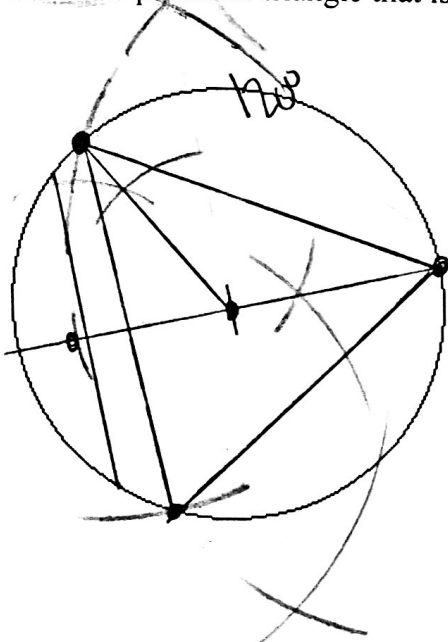
4) Construct a regular hexagon that is inscribed in the circle



$$\frac{360}{6} \rightarrow 60^\circ \text{ arcs}$$

- \* find center Equil  $\Delta$
- \* need  $60^\circ$  arcs
- \* create  $60^\circ$  central  $\angle$
- \* copy arc length around outside of circle

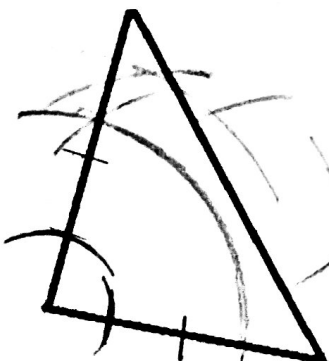
5) Construct an equilateral triangle that is inscribed in the following circle:



$$\frac{360}{3} = 120^\circ \text{ arcs}$$

- \* find center
- \* create  $60^\circ \angle$  so you have  $120^\circ \angle$
- \* copy arc length

6) Construct a triangle that is similar to the following triangle with an area ratio of 1:16



$$SF \rightarrow \frac{1}{4}$$

- \* copy one  $\angle$
- \* cut both sides in  $\frac{1}{2}$  twice that form that  $\angle$  to get  $\frac{1}{4}$