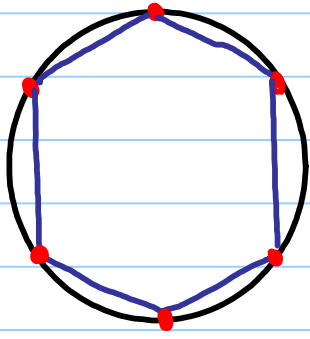


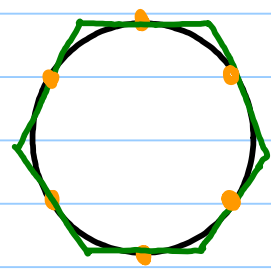
# 11.4 | Inscribed Polygons ... of circles

"inside"

→ every vertex of the polygon lies on the circle.

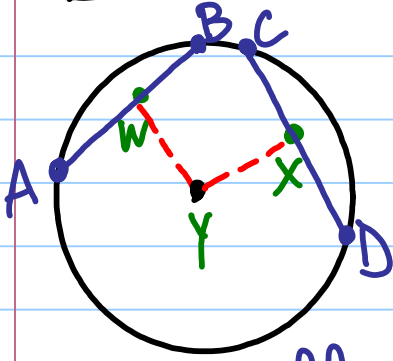


Inscribed hexagon

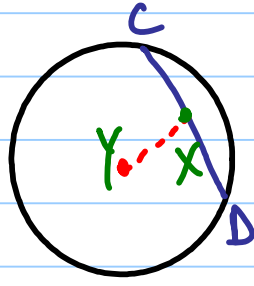
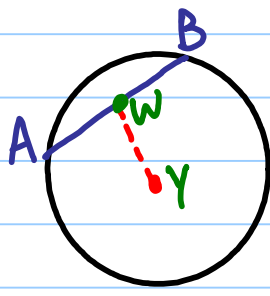


Circumscribed hexagon  
"around"  
• sides are tangent to a circle

## Thm 11.6

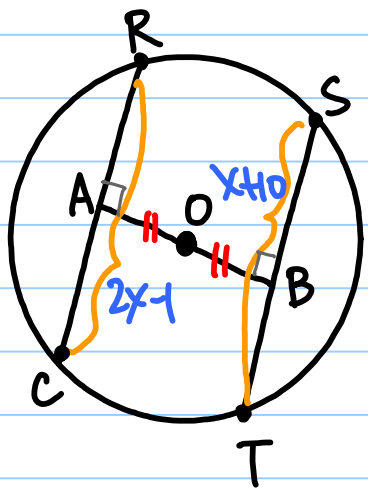


or



$\overline{AB} \cong \overline{CD}$  iff  $\overline{WY} \cong \overline{XY}$   
 If two chords are  $\cong$  then they are equidistant to the center

ex 2)



In circle O, point O is mdpt of  $\overline{AB}$ .  
 If  $CR = 2x-1$  &  $ST = x+10$ . find x.

- $\overline{AO} \cong \overline{BO}$  defn of mdpt
- $\overline{CR} \cong \overline{ST}$  by Thm 11.6
- $CR = ST$
- $2x-1 = x+10$
- $-x+1 \quad -x+1$
- $x = 11$