

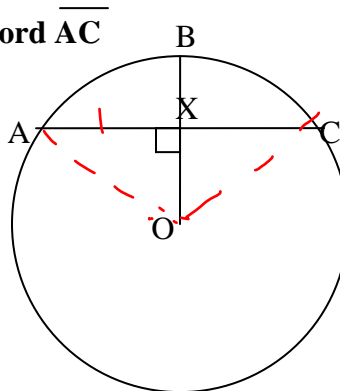
1. Given: Circle O with radius  $\overline{OB} \perp$  to chord  $\overline{AC}$

Conclusions:

$$\overline{AX} \cong \overline{CX}$$

$$\triangle AXO \cong \triangle CXO \text{ by SSS}$$

$$\widehat{AB} \cong \widehat{BC}$$



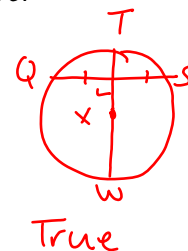
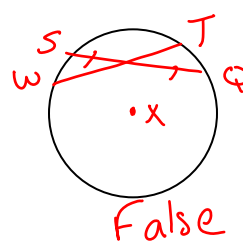
2. If a radius bisects a chord, then

the radius is  $\perp$  to the chord

3. Given: Circle X with chord  $\overline{TW}$  bisecting chord  $\overline{SQ}$ .

a) Sometimes, Always, Never:  $\overline{TW} \perp \overline{SQ}$  Draw a diagram to defend your answer

only true if  
one chord is a diameter



b) If  $\overline{TW} \perp \overline{SQ}$  what can you conclude about  $\overline{TW}$  or  $\overline{SQ}$ ?

one is the diameter

4. Given: In the same circle, Chords AB and CD are congruent

Draw your own diagram and label

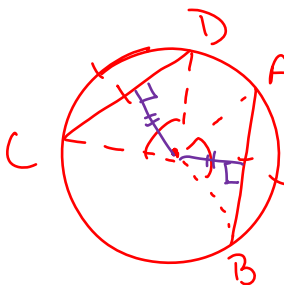
Conclusions:

The distances  
from the center  
are  $\cong$

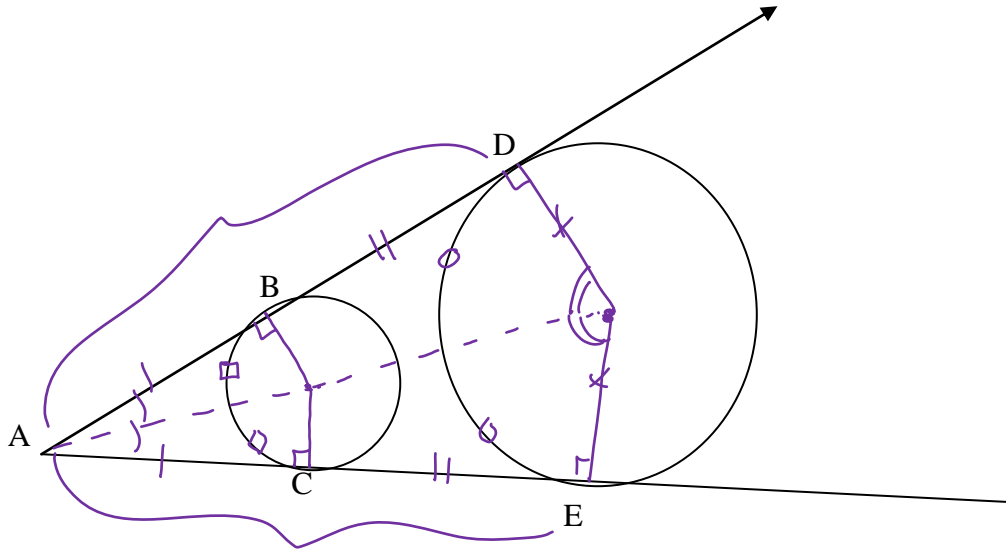
5.

$$\widehat{CD} \cong \widehat{AB}$$

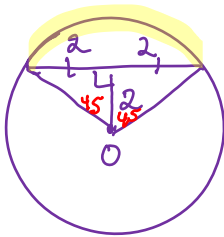
$$\text{central } \angle s \cong$$



Given:  $\overleftrightarrow{AB}$  and  $\overleftrightarrow{AC}$  are tangent to circle O and to circle X. Mark all the relationships you know are true.



6. A 4-inch chord is 2 inches from the center of the circle. Find the diameter of the circle and the measure of the minor arc made by the chord.

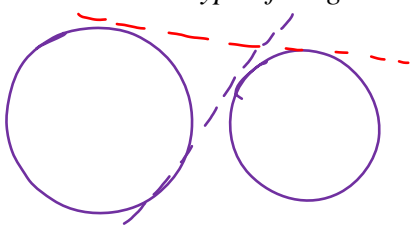


$$\text{radius} = 2\sqrt{2} \text{ in}$$

$$\text{diam} = 4\sqrt{2} \text{ in}$$

$$\text{minor arc} = 90^\circ$$

7. Review the common external and common internal tangent problems. Draw diagrams of each type of tangent.



- draw radii to points of tangency
- draw line of centers
- draw a line parallel to common tangent through the center of smaller circle
  - ↳ created rectangle & right triangle

8. Review Walk around problems

Tangent-Tangent Thm

