Name: _____

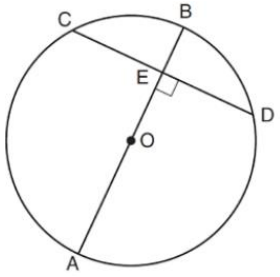
9.1 RADII & CHORDS

Past due on: _____ Period: _____

1. Given: $\odot O$

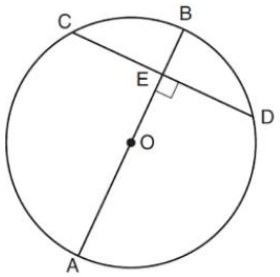
   If $AO = 10$ & $BE = 4$, find the length of $\overline{CD}$ & $m\angle C$.

   (Hint: Use a trig ratio to find $m\angle C$.)



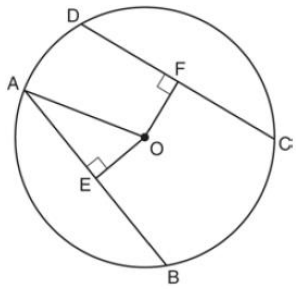
2. Given: $\odot O$

   If $AE = 9$ & $BE = 4$, find the length of $\overline{CD}$.



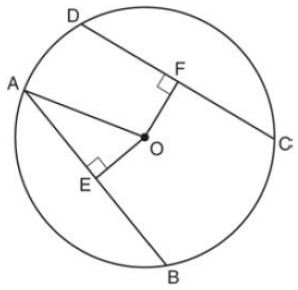
3. In $\odot O$, $\overline{AB} \cong \overline{CD}$, $\overline{OE} \perp \overline{AB}$ & $\overline{OF} \perp \overline{CD}$.

   If $AE = y + 10$, $CD = 4y - 20$, & $OF = 16$, determine the lengths of $\overline{DF}$ & $\overline{OA}$ & $m\angle BAO$.



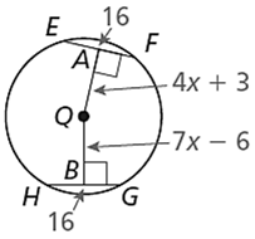
4. In $\odot O$, $\overline{AB} \cong \overline{CD}$, $\overline{OE} \perp \overline{AB}$ & $\overline{OF} \perp \overline{CD}$.

   If $AB = 2x^2 - 35$ & $CD = -9x$, determine the length of $\overline{AB}$.

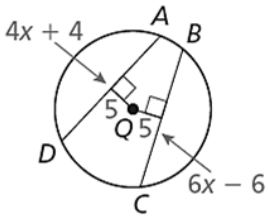


Exercises 5 and 6: Find the value of x AND the radius of $\odot Q$.

5.

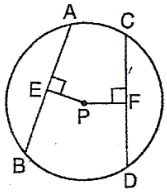


6.

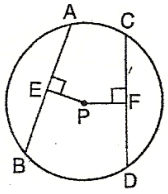


Exercises 7 and 8: In $\odot P$, $\overline{PE} \cong \overline{PF}$. Find the value of x AND the indicated segment length.

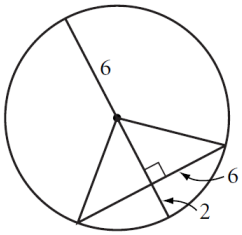
7. $AE = x + 4$ and $CD = 3x - 2$; find CD.



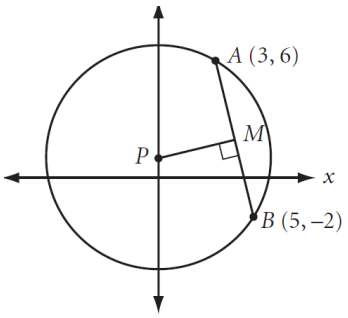
8. $AB = 7x + 13$ and $CD = 10x - 8$; find CF.



9. Explain what's wrong with this picture:



10. Find the coordinates of M and the slope of $\overline{PM}$.



11. The accompanying diagram shows a semicirculular arch over a street that has a radius of 14 feet. A banner is attached to the arch at points A and B, such that $AE = EB = 5$ feet. How many feet above the ground are these points of attachment for the banner?