

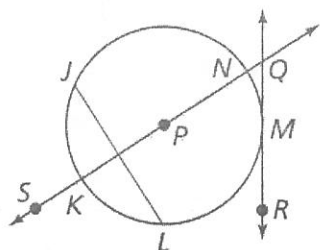
Name: key

Date:

Period:

# HW #10-6

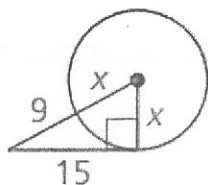
Use the diagram for #1-6



1. Name the circle  $\odot P$
2. Name a diameter  $\overline{KN}$
3. Name a radius  $\overline{PN}$

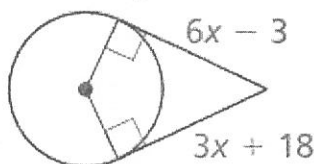
4. Name a chord  $\overline{JL}$
5. Name a tangent  $\overline{QR}$
6. Name a secant  $\overline{SK}$

7. Find the value of  $x$ .



$$x = 8$$

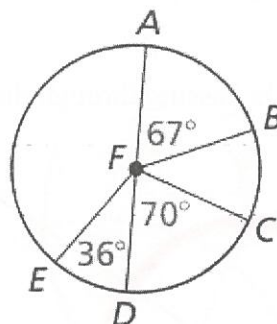
8. Find the length of each tangent segment.



$$39$$

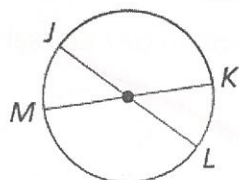
Identify each arc as a minor arc, major arc, or a semicircle. Then find the measure of each arc.

- a.  $\widehat{AE}$  minor arc;  $144^\circ$
- b.  $\widehat{BC}$  minor arc;  $43^\circ$
- c.  $\widehat{AC}$  minor arc;  $110^\circ$
- d.  $\widehat{ACD}$  semicircle;  $180^\circ$
- e.  $\widehat{ACE}$  major arc;  $216^\circ$
- f.  $\widehat{BEC}$  major arc;  $317^\circ$



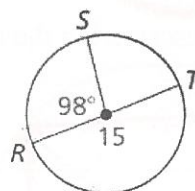
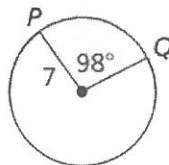
10. Tell whether the arcs are congruent. Explain why or why not.

- a.  $\widehat{JM}$  and  $\widehat{KL}$



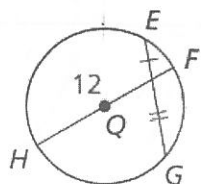
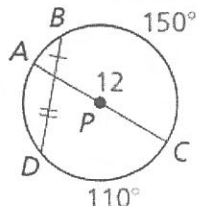
yes, central  
LS  $\cong$  in  
same  $\odot$

- b.  $\widehat{PQ}$  and  $\widehat{RS}$



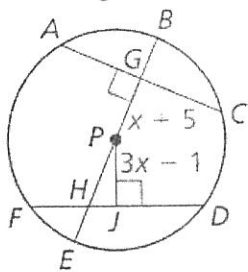
No - central LS  $\cong$   
but the  
OS aren't  $\cong$

11. Find  $m\widehat{EG}$ .



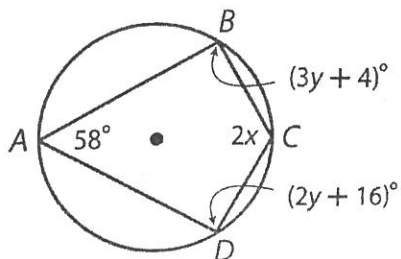
$$100^\circ$$

12. In the diagram,  $AC = FD = 30$ ,  $PG = x + 5$  and  $PJ = 3x - 1$ . Find the radius of  $\odot P$ .



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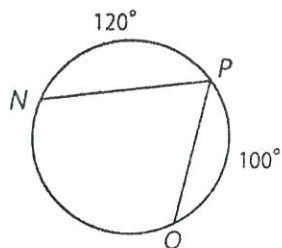
13. Find  $m\angle B$  and  $m\angle C$ .



$$m\angle B = 100^\circ$$

$$m\angle C = 122^\circ$$

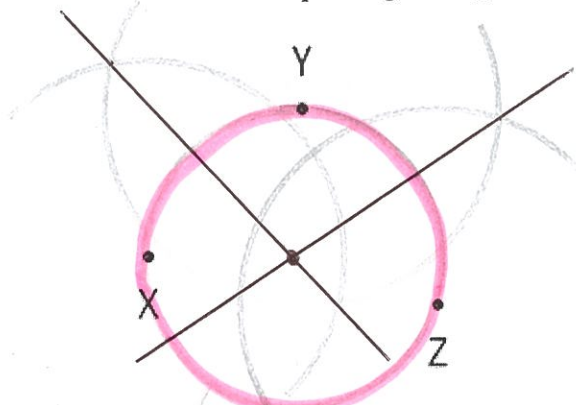
14. Find  $m\angle P$



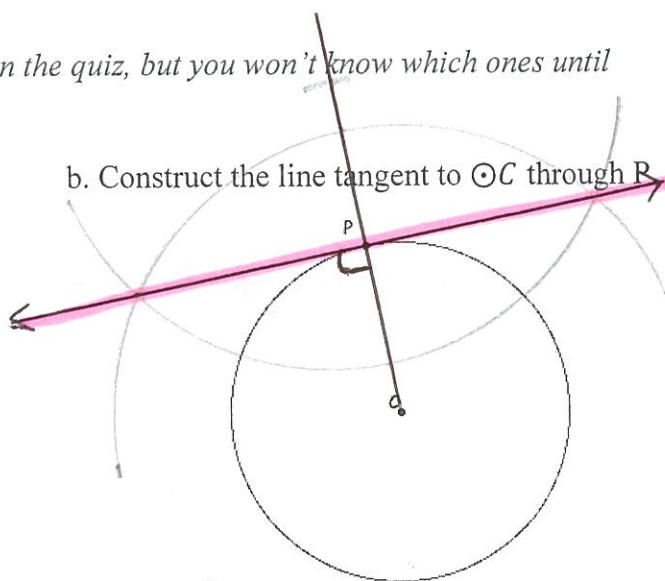
$$m\angle P = 70^\circ$$

15. Complete the following constructions. *Only 2 will be on the quiz, but you won't know which ones until tomorrow!*

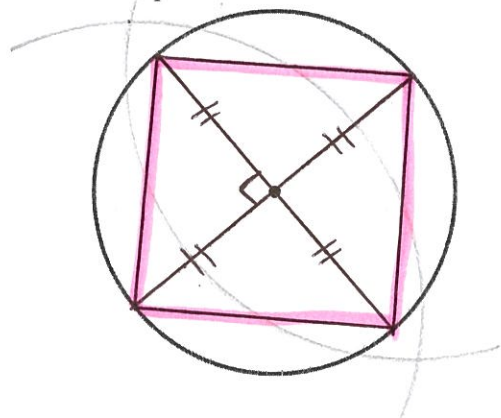
a. Construct the circle passing through the 3 points.



b. Construct the line tangent to  $\odot C$  through R.



c. Construct a square inscribed in the circle below.



d. Construct the line tangent to  $\odot O$  through B.

