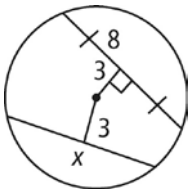
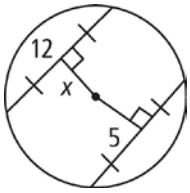
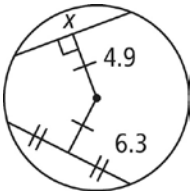
Name_____ Date_____

12.3 & 12.4 - Properties of Chords & Inscribed Angles

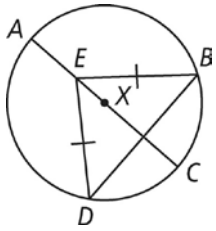
Find the value of *x*.

1) 

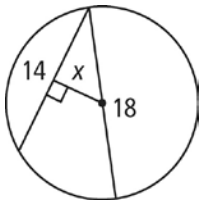
2) 

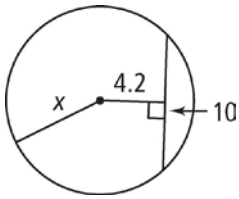
3) 

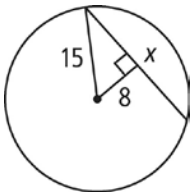
4) In $\odot X$, $\overline{AC}$ is a diameter and $\overline{ED} \cong \overline{EB}$. What can you conclude about the relationship between $\overline{AC}$ and $\overline{DB}$?



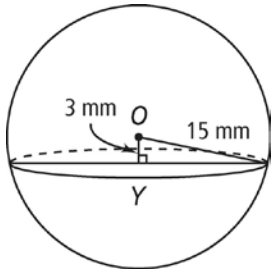
Find the value of *x* nearest tenth.

5) 

6) 

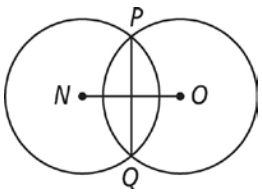
7) 

8) In the figure at the right, sphere *O* with radius 15 mm is intersected by a plane 3 mm from the center. To the nearest tenth, find the radius of the cross section $\odot Y$.



For #9 and 10, $\odot N$ and $\odot O$ are congruent. $\overline{PQ}$ is a chord of both circles.

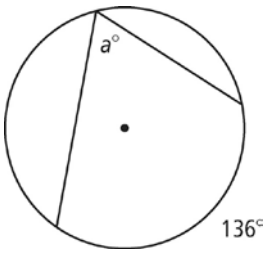
9) If NO = 12 in. and $\overline{PQ}$ = 8 in., how long is the radius to the nearest tenth of an inch?



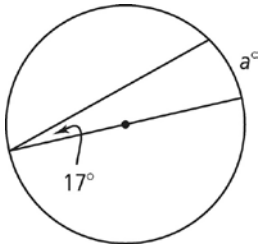
10) If NO = 30 mm and radius = 16 mm, how long is $\overline{PQ}$ to the nearest tenth of a millimeter?

Find the value of each variable. For each circle, the dot represents the center.

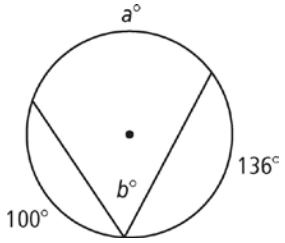
11)



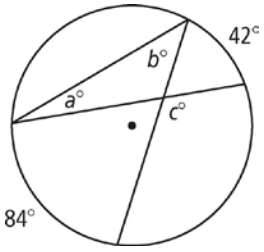
12)



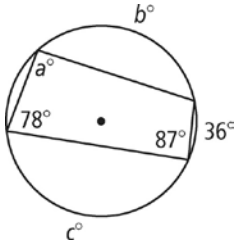
13)



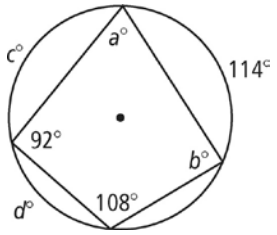
14)



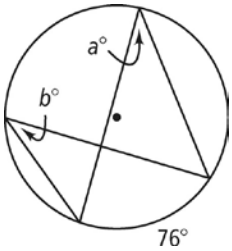
15)



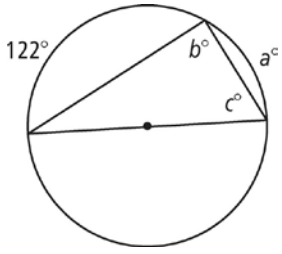
15)



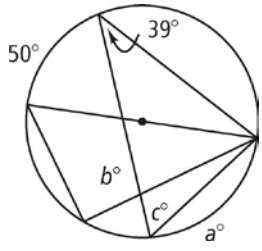
16)



17)

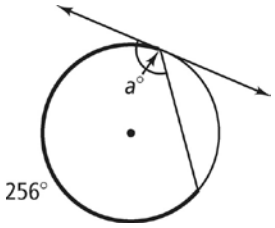


18)

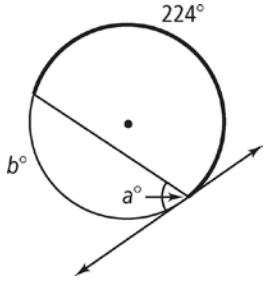


Find the value of each variable. Lines that appear to be tangent are tangent.

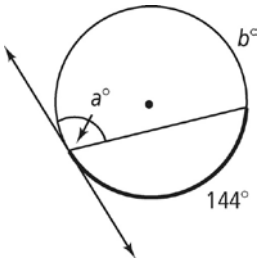
19)



20)



21)



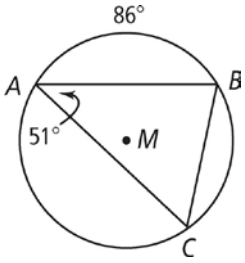
22) Find each indicated measure for $\odot M$.

a) $m\angle B$

b) $m\angle C$

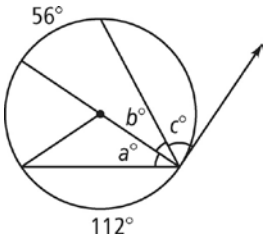
c) $m\widehat{BC}$

d) $m\widehat{AC}$

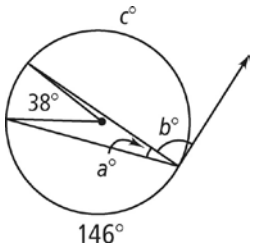


Find the value of each variable. For each circle, the dot represents the center.

23)



24)



25)