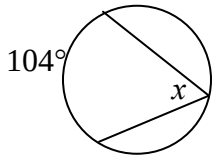
Geometry **Problem Set #16** **Name:_____**
2nd Semester 2016 **Period:_____**

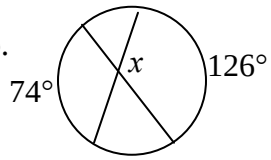
Show all work for each problem. Round answers to nearest tenth if necessary

1. Find the value of *x*.

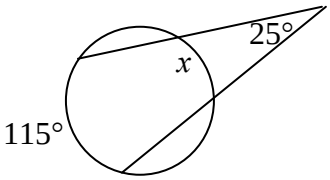
a.



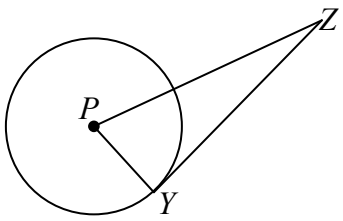
b.



c.

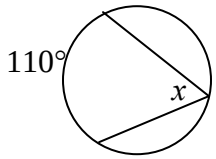


2. $\overline{YZ}$ is tangent to circle *P* at point *Y*. The radius is 10 mm long. If $\angle PZY = 14°$, find *PZ*. (nearest tenth)

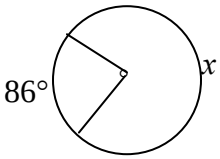


3. Find the value of *x*.

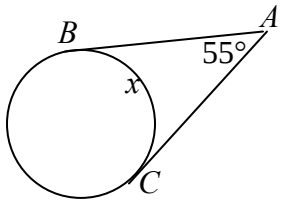
a.



b.

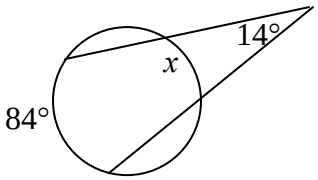


c.

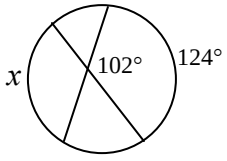


Segments *AB* and *AC* are tangent to the circle.

d.

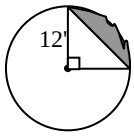


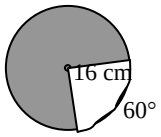
e.

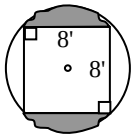


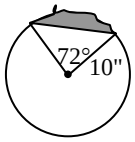
4. Find the <u>area</u> of a circle that has an 18 cm chord that is 6 cm from the center of the circle.

5. Find the shaded area. Use calculator π and round final answers to the nearest tenth.

a. 

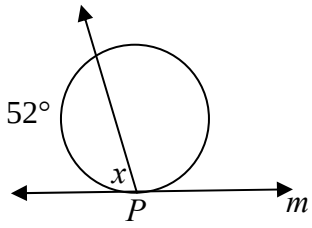
b. 

c. 

d. 

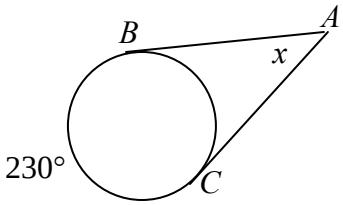
Find the value of x.

6.



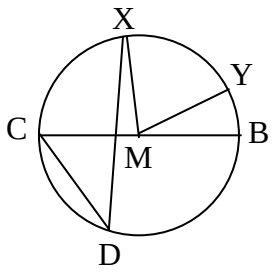
Line *m* is tangent to the circle at point *P*.

7.



Segments *AB* and *AC* are tangent to the circle.

8-10. Use circle M to answer the questions.



8. Find the measure of arc *BDC*.

9. If arc $XY = 55°$, find the measure of $\angle XMY$.

10. If $\angle CDX = 28°$, find the measure of arc *CX*.

11. State the center and radius of each circle.

a. $(x+5)^2 + (y-3)^2 = 16$ a) Center: (,) Radius :

b. $x^2 + (y+7)^2 = 10$ b) Center: (,) Radius :