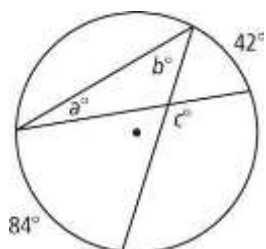


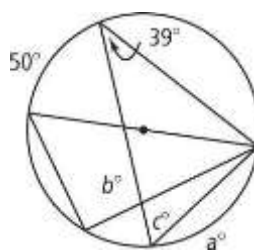
# HW-50      Inscribed Angles

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

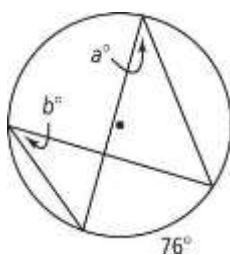
1.



2.

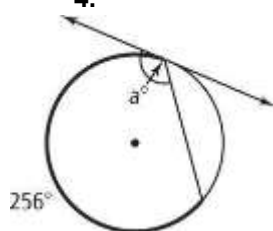


3.

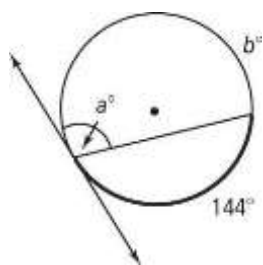


Find the value of each variable. Lines that appear to be tangent are tangent.

4.



5.



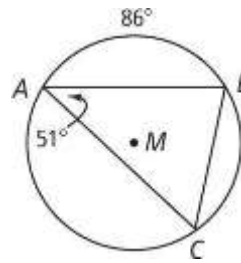
Find each indicated measure for  $\odot M$ .

6. a.  $\angle B$

c.  $m\widehat{BC}$

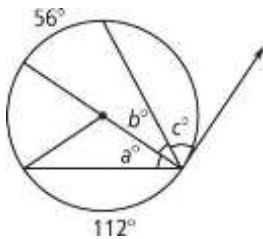
b.  $\angle C$

d.  $m\widehat{AC}$

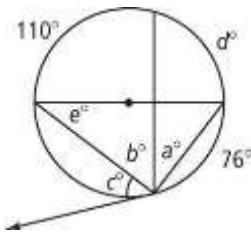


Find the value of each variable. For each circle, the dot represents the center.

7.

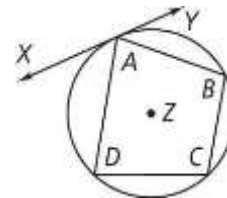


8.



9. **Given:** Quadrilateral  $ABCD$  is inscribed in  $\odot Z$ .  $\overleftrightarrow{XY}$  is tangent to  $\odot Z$ .

**Prove:**  $\angle XAD + \angle YAB = \angle C$



10. A student inscribes quadrilateral  $ABCD$  inside a circle. The measures of angles  $A$ ,  $B$ , and  $C$  are given below. Find the measure of each angle of quadrilateral  $ABCD$ .

$$\text{Angle } A = 8x - 4 \quad \text{Angle } B = 5x + 4 \quad \text{Angle } C = 7x + 4$$