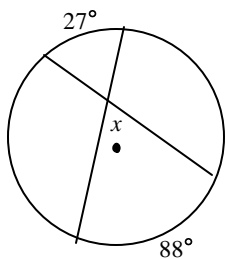


**Accelerated Geometry**  
**10.5 Warm Up**

Name \_\_\_\_\_  
Date \_\_\_\_\_

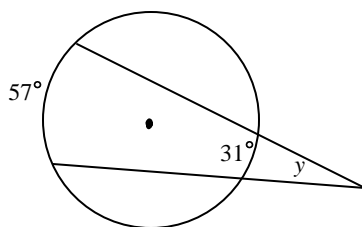
1. Find the indicated variable.

a)



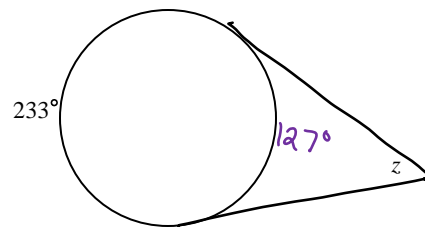
$$x = \frac{27 + 88}{2} = \boxed{57.5^\circ}$$

b)



$$y = \frac{57 - 31}{2} = \boxed{13^\circ}$$

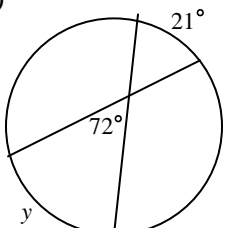
c)



$$z = \frac{233 - 127}{2} = \boxed{53^\circ}$$

2. Find the indicated variable.

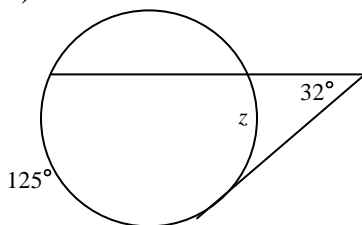
a)



$$72 = \frac{y + 21}{2}$$

$$\boxed{y = 123^\circ}$$

b)

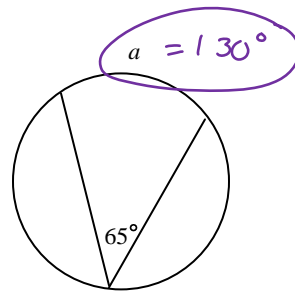


$$32 = \frac{125 - z}{2}$$

$$64 = 125 - z$$

$$\boxed{z = 61^\circ}$$

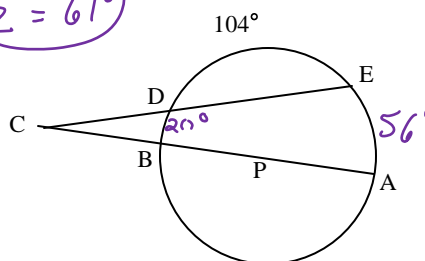
c)



$$\boxed{a = 130^\circ}$$

3.  $\overline{AB}$  is a diameter of circle P.  
 $m\widehat{BD} = 20$ ,  $m\widehat{DE} = 104$   
Find  $m\angle C$

$$\angle C = \frac{56 - 20}{2} = \boxed{18^\circ}$$



$$\widehat{BA} = 180^\circ$$

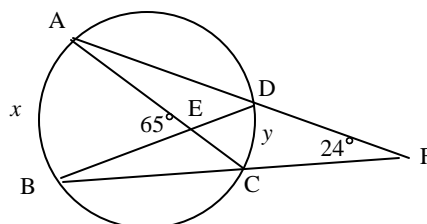
4. Find  $m\widehat{AB}$  and  $m\widehat{CD}$ .

$$\angle AEB = \frac{\widehat{AB} + \widehat{DC}}{2}$$

$$65 = \frac{x + y}{2}$$

$$\angle AFB = \frac{\widehat{AB} - \widehat{DC}}{2}$$

$$24 = \frac{x - y}{2}$$



$$130 = x + y$$

$$48 = x - y$$

$$\hline 178 = 2x$$

$$\boxed{89 = x}$$

$$\boxed{y = 41^\circ}$$