KEY

Geometry (H)
Section 9.6 - Problems

$\overline{AD}$ and $\overline{AE}$ are tangents, $\overline{AC}$ is a secant, and $\overline{GD}$ and $\overline{FE}$ are chords.

1. $m\overset{\frown}{DC} = 110$; $m\overset{\frown}{DB} = 43$; $m\angle 2 =$ $\frac{67}{2} = 33\frac{1}{2} = \frac{1}{2}(110-43)$

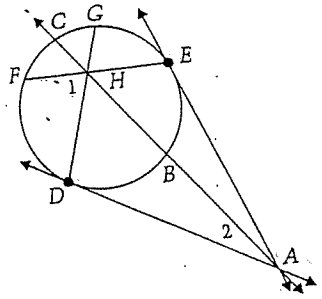
2. $m\overset{\frown}{FD} = 70$; $m\overset{\frown}{GE} = 50$; $m\angle 1 =$ 60 $\frac{1}{2}(70+50)$

3. $m\overset{\frown}{DCE} = 300$; $m\angle DAE =$ 120 $\frac{1}{2}(300-60)$

4. $m\angle DAE = 60$; $m\overset{\frown}{DE} =$ 120
$m\angle A = \frac{1}{2}(\text{larg} - \text{small})$
$60 = \frac{1}{2}(360 - x - x)$
$x = 120$

5. $m\overset{\frown}{FD} = 65$; $m\angle 1 = 60$; $m\overset{\frown}{GE} =$ 55 $60 = \frac{1}{2}(65 + x)$

6. $m\overset{\frown}{BD} = 50$; $m\angle 2 = 20$; $m\overset{\frown}{CD} =$ 90

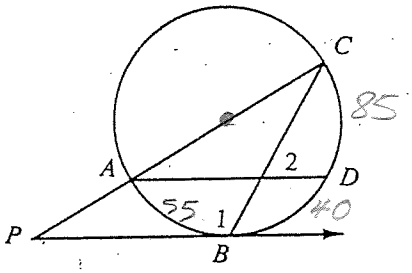


$m\overset{\frown}{AB} = 55$, $m\overset{\frown}{BD} = 40$, $\overline{AC}$ is a diameter and $\overline{PB}$ is tangent to the circle at B.

1. Find $m\angle P$ = 35 $= \frac{1}{2}(125-55)$, $CD = 85$

2. Find $m\angle 2$. = 70 $= \frac{1}{2}(85+55)$

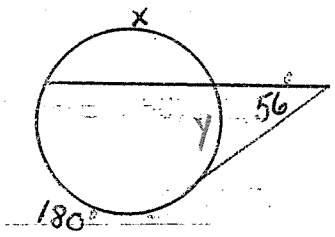
3. Find $m\angle 1$ $\frac{235}{2} = 117\frac{1}{2}$ $= \frac{1}{2}(235)$ (180+55)

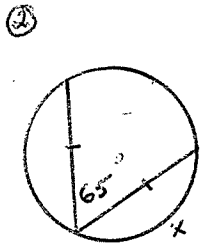


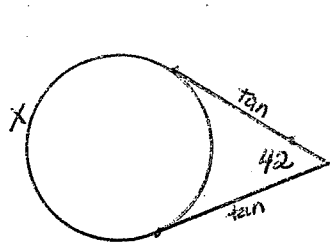
4. Is $\overline{AD} \parallel \overline{PB}$? Explain.
No, if $\overline{AD} \parallel \overline{PB}$, then $\overset{\frown}{AB} \cong \overset{\frown}{BD}$
but $AB \neq BD$. Therefore, $\overline{AD} \not\parallel \overline{PB}$.

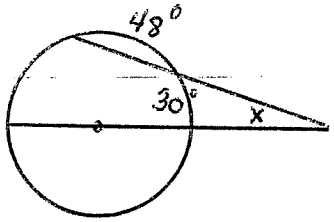
Geometry (H)
Section 9.5 & 9.6 – More problems

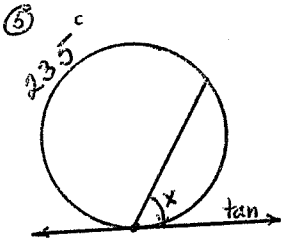
Name: _____

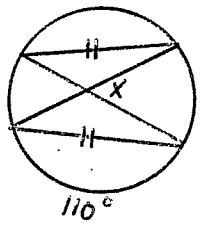
① 

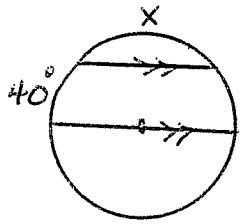
② 

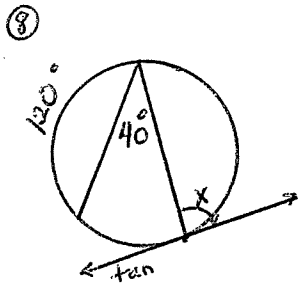
③ 

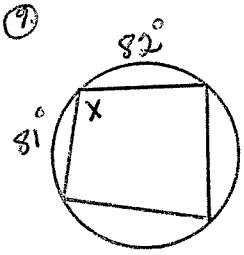
④ 

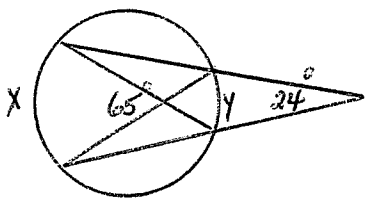
⑤ 

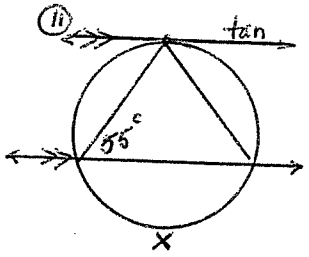
⑥ 

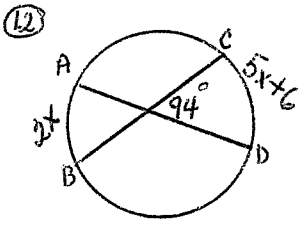
⑦ 

⑧ 

⑨ 

⑩ 

⑪ 

⑫ 

Find $\overset{\frown}{AB}$.