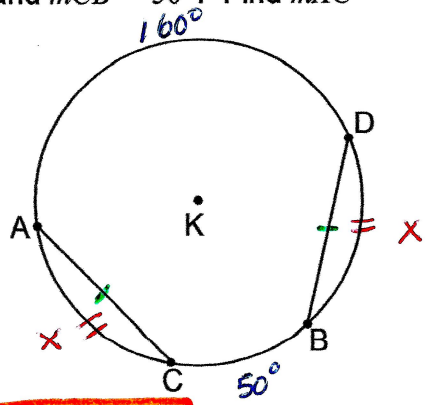
Geo Practice #22 Sec 12-2 Wed & Thr, April 29/30, 2020

SOLUTIONS

1. In $\odot K$: $\overline{AC} \cong \overline{BD}$, $m\widehat{AD} = 160°$ and $m\widehat{CB} = 50°$. Find $m\widehat{AC}$



$m\widehat{AC} = 75°$

$m\widehat{AC} = m\widehat{DB}$

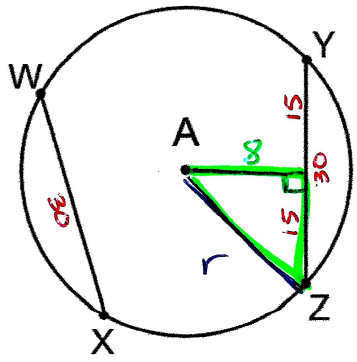
$x + 50° + x + 160° = 360°$

$2x + 210° = 360°$

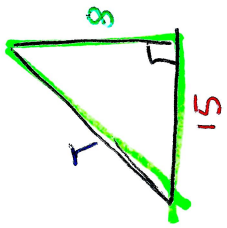
$-210° \quad -210°$

$2x = 150$ $x = 75°$

2. In $\odot A$: $\overline{WX} \cong \overline{YZ}$, $WX = 30$ and $\overline{YZ}$ is 8 units from the center. Find the radius of the circle



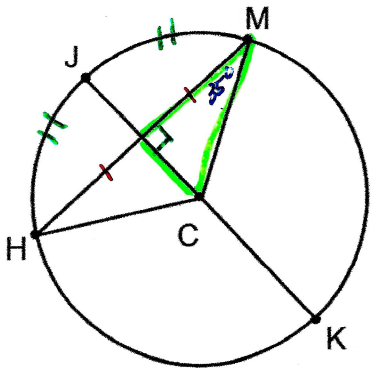
radius = 17

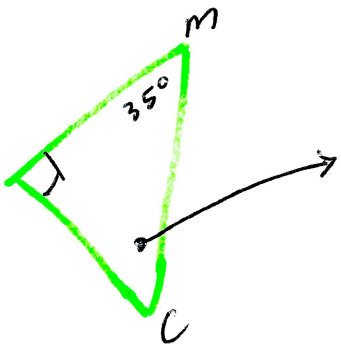


$r^2 = 15^2 + 8^2$

$r = 17$

3. In $\odot C$: Diameter $\overline{JK}$ is perpendicular to chord $\overline{HM}$. If $\angle CMH = 35°$ find $m\widehat{MH}$.





$180° - 90° - 35° = 55°$

$\angle JCM = 55°$

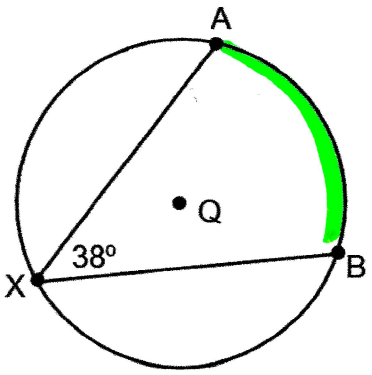
$m\widehat{JM} = m\angle JCM = 55°$

$m\widehat{MH} = 2 \cdot m\widehat{JM} = 2(55°)$

$m\widehat{MH} = 110°$

Point Q is the center for all the circles below.

4. Find the $m\widehat{AB}$

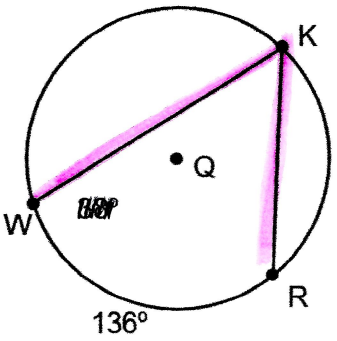


$m\widehat{AB} = 2 \cdot m\angle AXB$

$= 2(38°)$

$m\widehat{AB} = 76°$

5. Find the $m\angle WKR$

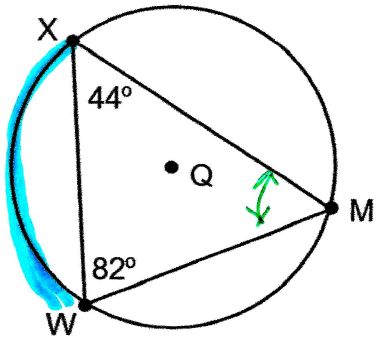


$m\angle WKR = \frac{1}{2}\, m\widehat{WR}$

$= \frac{1}{2}(136°)$

$m\angle WKR = 68°$

6. Find the $m\widehat{WX}$



$m\angle XMW = 180° - 44° - 82° = 54°$

$m\widehat{WX} = 2 \cdot m\angle XMW$

$= 2(54) = 108°$

$m\widehat{WX} = 108°$