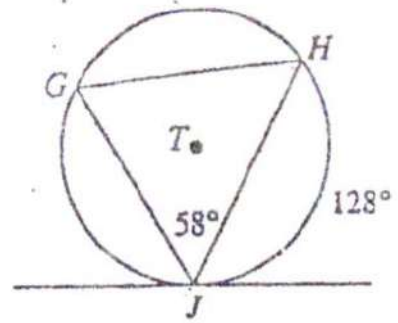
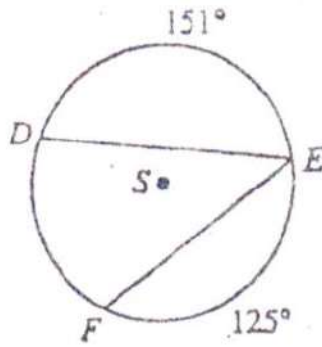
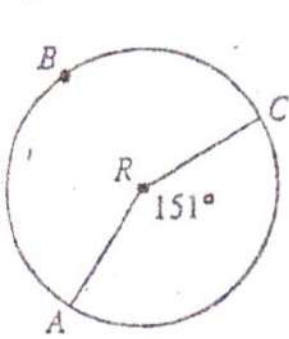
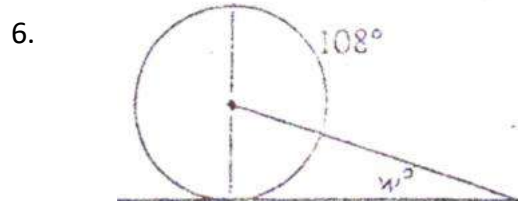
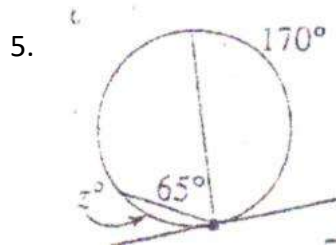
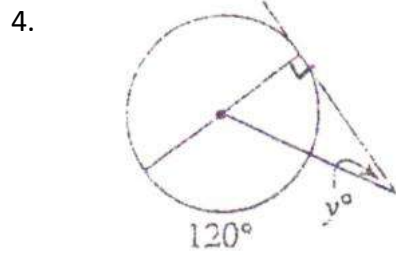


Use the figures to answer questions 1-3.



1. In $\odot R$, find $m\widehat{ABC}$. 2. In $\odot S$, find $m\widehat{DF}$ and $\angle DEF$ 3. In $\odot T$, find $\angle GHJ$

Find the value of each variable.



Find the measure of the arc of $\odot P$.

7. \widehat{XY}

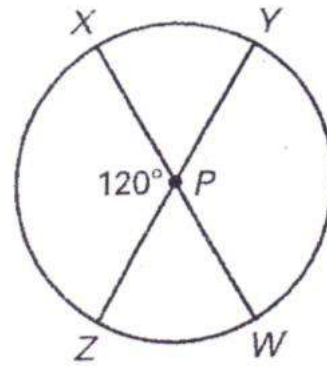
8. \widehat{ZW}

9. \widehat{XYW}

10. \widehat{XYZ}

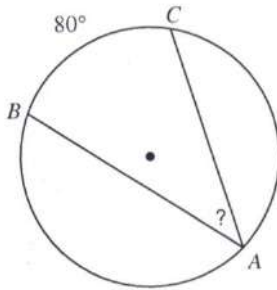
11. \widehat{YW}

12. \widehat{ZYW}

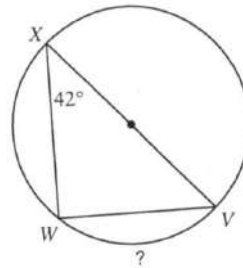


Find the measure of the arc or angle indicated.

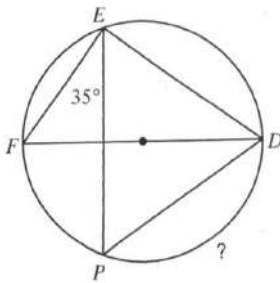
13.



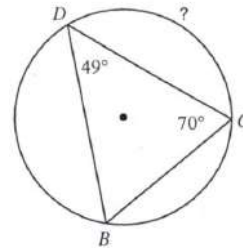
14.



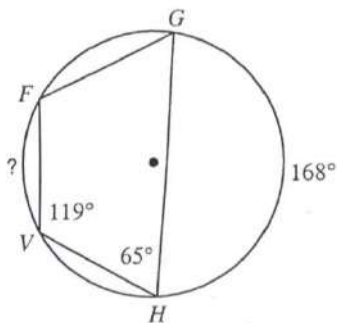
15.



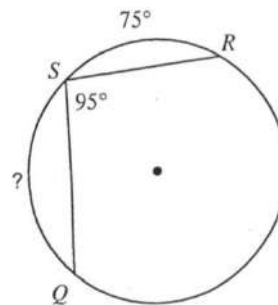
16.



17.

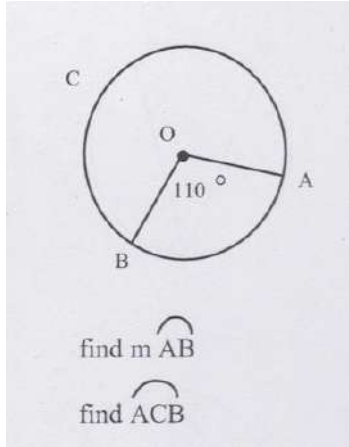


18.

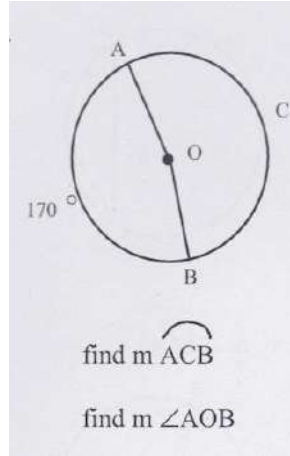


Given point O is the center of each circle:

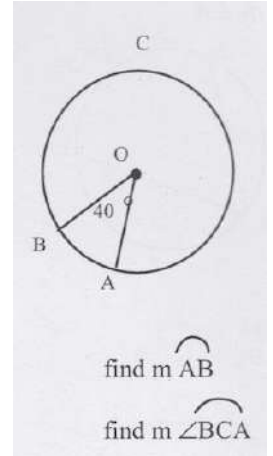
19.



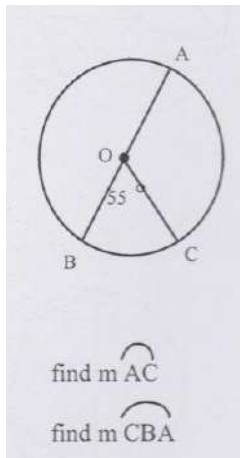
20.



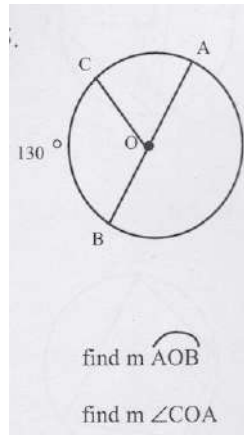
21.



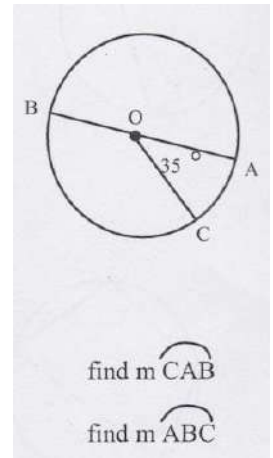
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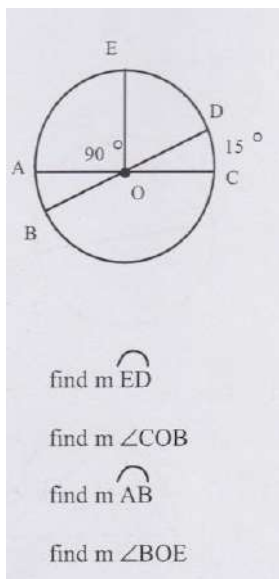
23.



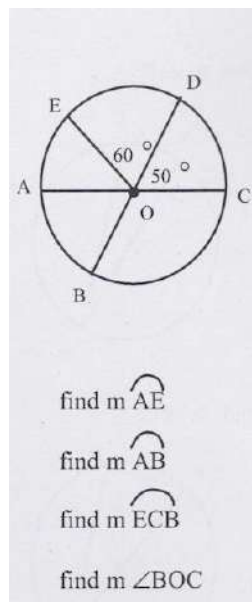
24.



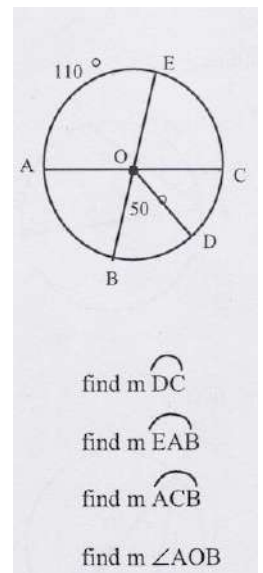
25.



26.

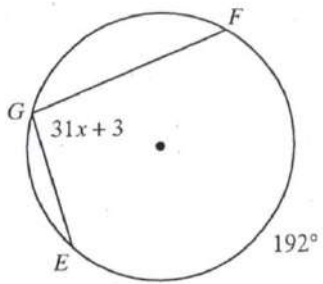


27.

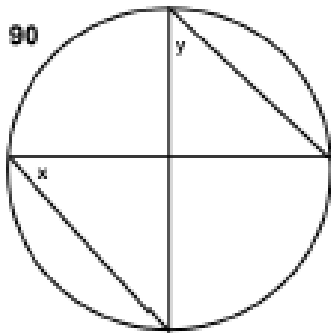


Solve for x.

28.



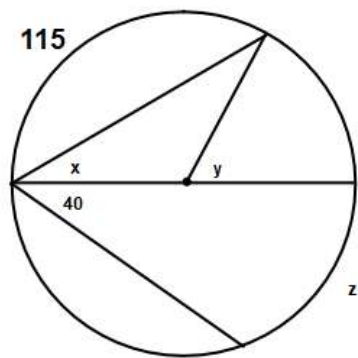
29.



x = _____

y = _____

30.

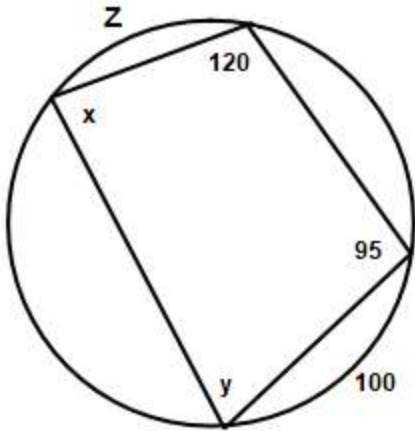


x = _____

y = _____

z = _____

31.

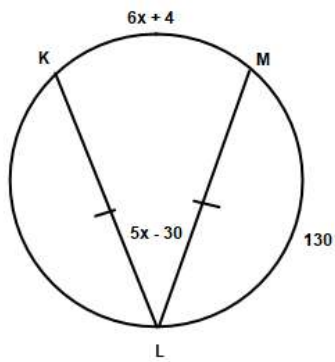


$x = \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}$

$z = \underline{\hspace{2cm}}$

32.

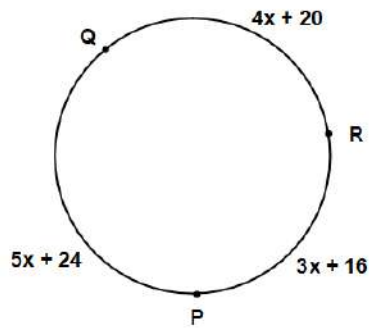


$x = \underline{\hspace{2cm}}$

$m\angle L = \underline{\hspace{2cm}}$

$m\widehat{KM} = \underline{\hspace{2cm}}$

33.



$x = \underline{\hspace{2cm}}$

$m\widehat{PQ} = \underline{\hspace{2cm}}$

$m\widehat{QR} = \underline{\hspace{2cm}}$

$m\widehat{PR} = \underline{\hspace{2cm}}$