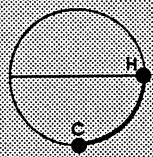


Circles

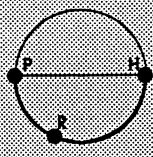
Arcs and Angles

Minor Arc



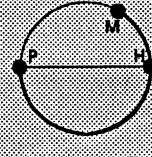
\widehat{HC}
< half a rotation

Semicircle



\widehat{PRH}
= half a rotation (180°)

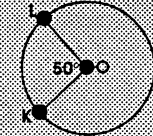
Major Arc



\widehat{PHM}
> half a rotation

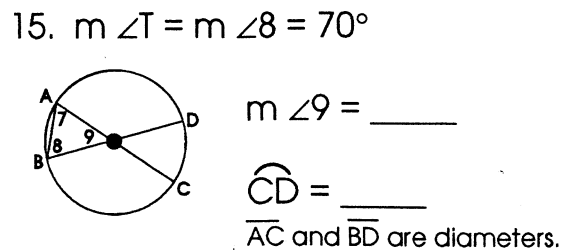
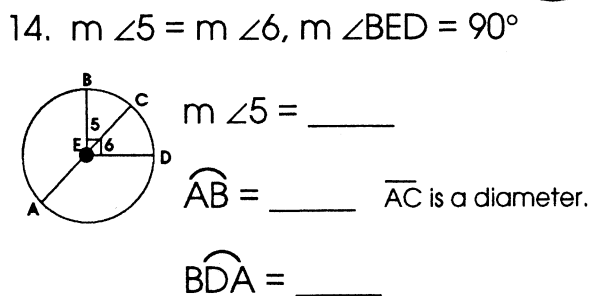
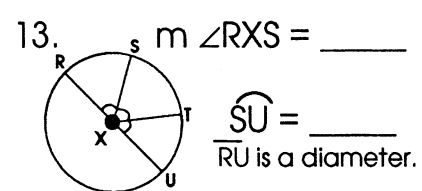
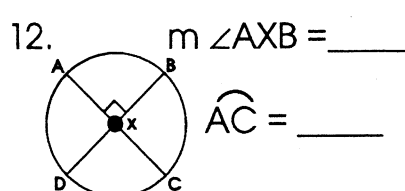
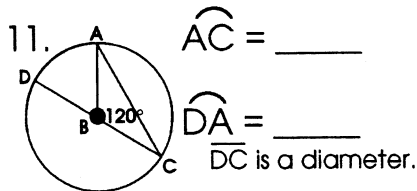
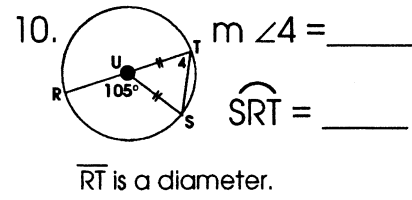
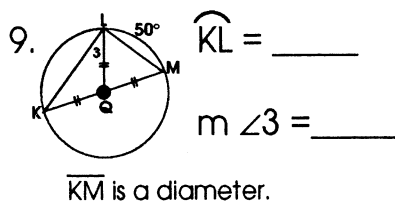
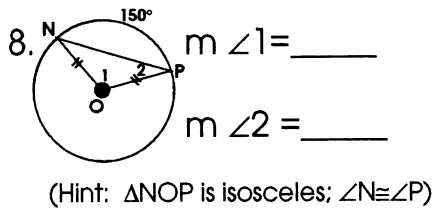
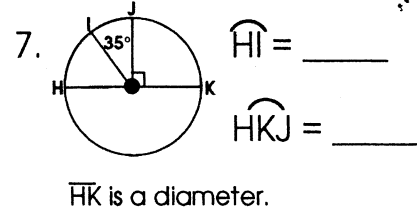
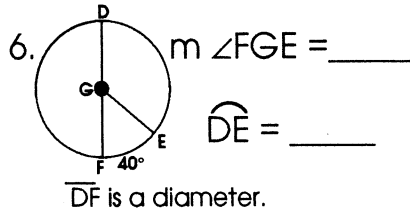
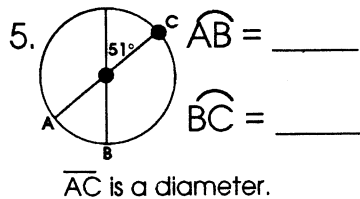
Note: A complete rotation measures 360° .

A central angle has its vertex at the center of a circle and its measure is equal to the measure of its minor arc.



$\angle K = 50^\circ$

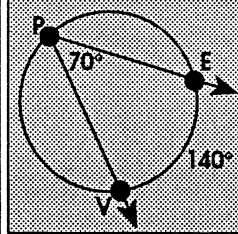
Find the measure of each angle or arc listed.





Fill in the blanks.

16. The measure of a minor arc _____ the measure of the central angle that intercepts it.
17. A complete rotation has a measure of _____ degrees.
18. A _____ measures 180° .
19. The measure of a major arc equals 350° minus the measure of the _____ angle that intercepts it.

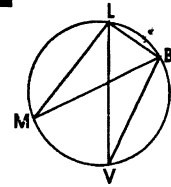


An **inscribed angle** has its vertex on the circle and its sides form chords of the circle. Inscribed $\angle VPE$ intercepts \widehat{VE} .

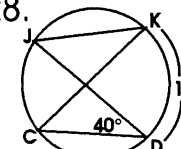
$$m \angle VPE = \frac{1}{2} m \widehat{VE}$$

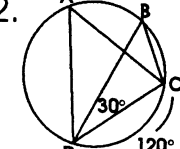
Name the arc intercepted by the given angle.

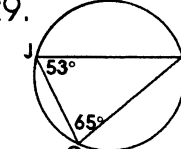
- | | | | |
|------------------|------------------|------------------|------------------|
| 20. $\angle LMB$ | 22. $\angle LBV$ | 24. $\angle MLB$ | 26. $\angle BLV$ |
| 21. $\angle MBV$ | 23. $\angle BVL$ | 25. $\angle MBL$ | 27. $\angle MLV$ |

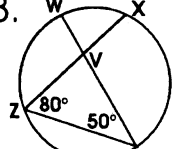


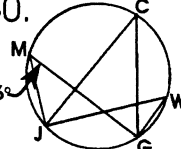
Find the measures of the indicated arcs and angles.

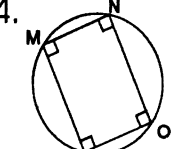
28.  $\widehat{JC} = \underline{\hspace{2cm}}$
 $m \angle JKC = \underline{\hspace{2cm}}$
 $m \angle KJD = \underline{\hspace{2cm}}$

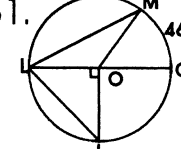
32.  $m \angle CBD = \underline{\hspace{2cm}}$
 $m \angle CAD = \underline{\hspace{2cm}}$
 $\widehat{BC} = \underline{\hspace{2cm}}$

29.  $\widehat{JB} = \underline{\hspace{2cm}}$
 $\widehat{GB} = \underline{\hspace{2cm}}$
 $\widehat{JG} = \underline{\hspace{2cm}}$

33.  $m \angle YVZ = \underline{\hspace{2cm}}$
 $\widehat{XY} = \underline{\hspace{2cm}}$
 $\widehat{WZ} = \underline{\hspace{2cm}}$

30.  $\widehat{JG} = \underline{\hspace{2cm}}$
 $m \angle C = \underline{\hspace{2cm}}$
 $m \angle W = \underline{\hspace{2cm}}$

34.  $\widehat{MPO} = \underline{\hspace{2cm}}$
 \widehat{NP} is a

31.  $\widehat{JM} = \underline{\hspace{2cm}}$
 $m \angle JLM = \underline{\hspace{2cm}}$
 $\widehat{LM} = \underline{\hspace{2cm}}$

35.  $m \angle KVE = \underline{\hspace{2cm}}$
 $m \angle KIE = \underline{\hspace{2cm}}$