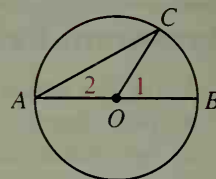


Complete the tables in Exercises 10 and 11.

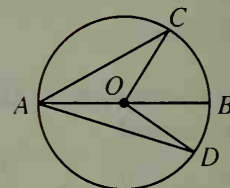
10.

$m\widehat{CB}$	60	70	?	?	?
$m\angle 1$?	?	56	?	?
$m\angle 2$?	?	?	25	x



11.

$m\widehat{CB}$	70	60	66	60	p
$m\widehat{BD}$	30	28	?	?	q
$m\angle COD$?	?	100	?	?
$m\angle CAD$?	?	?	52	?



12. Use a compass to draw a large $\odot O$. Draw a central $\angle AOB$.
- Label three other points P , Q , and R that are on $\odot O$ but not on \widehat{AB} . Then draw $\angle APB$, $\angle AQB$, and $\angle ARB$.
 - Use a protractor to find $m\angle AOB$, $m\angle APB$, $m\angle AQB$, and $m\angle ARB$.
 - What is the relationship between $m\angle APB$, $m\angle AQB$, and $m\angle ARB$? What is the relationship between $m\angle AOB$ and $m\angle APB$?
13. a. Draw three large circles and inscribe a different-shaped quadrilateral $ABCD$ in each.
- Use a protractor to measure all the angles.
 - Compute $m\angle A + m\angle C$ and $m\angle B + m\angle D$.
 - What is the relationship between opposite angles of an inscribed quadrilateral?

- B** 14. Given: \overline{WZ} is a diameter of $\odot O$; $\overline{OX} \parallel \overline{ZY}$

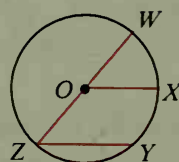
Prove: $\widehat{WX} \cong \widehat{XY}$

(Hint: Draw \overline{OY} .)

15. Given: \overline{WZ} is a diameter of $\odot O$;

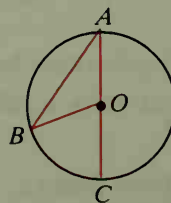
$$m\widehat{WX} = m\widehat{XY} = n$$

Prove: $m\angle Z = n$



16. \overline{AC} is a diameter of $\odot O$.

- If $m\angle A = 35$, then $m\angle B = \underline{\hspace{1cm}}$, $m\angle BOC = \underline{\hspace{1cm}}$, and $m\widehat{BC} = \underline{\hspace{1cm}}$.
- If $m\angle A = n$, then $m\widehat{BC} = \underline{\hspace{1cm}}$.
- If $m\widehat{BC} = 6k$, then $m\angle A = \underline{\hspace{1cm}}$.



In Exercises 17–20, the latitude of a city is given. Sketch the Earth and a circle of latitude through the city. Find the radius of this circle.

17. Milwaukee, Wisconsin; 43°N

18. Columbus, Ohio; 40°N

19. Sydney, Australia; 34°S

20. Rio de Janeiro; 23°S