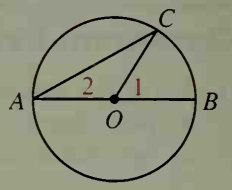
Complete the tables in Exercises 10 and 11.

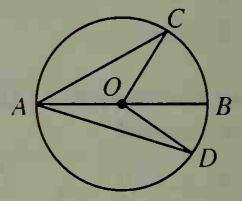
10.

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



11.

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



12. Use a compass to draw a large $\odot O$. Draw a central $\angle AOB$.

a. Label three other points P, Q, and R that are on $\odot O$ but not on $\overset{\frown}{AB}$. Then draw $\angle APB$, $\angle AQB$, and $\angle ARB$.

b. Use a protractor to find $m\angle AOB$, $m\angle APB$, $m\angle AQB$, and $m\angle ARB$.

c. 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.

b. Use a protractor to measure all the angles.

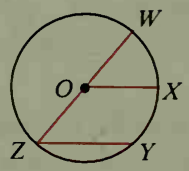
c. Compute $m\angle A + m\angle C$ and $m\angle B + m\angle D$.

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: $\overset{\frown}{WX} \cong \overset{\frown}{XY}$

(*Hint*: Draw $\overline{OY}$.)



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

$m\overset{\frown}{WX} = m\overset{\frown}{XY} = n$

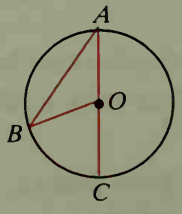
Prove: $m\angle Z = n$

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

a. If $m\angle A = 35$, then $m\angle B =$ ___?___, $m\angle BOC =$ ___?___, and $m\overset{\frown}{BC} =$ ___?___.

b. If $m\angle A = n$, then $m\overset{\frown}{BC} =$ ___?___.

c. If $m\overset{\frown}{BC} = 6k$, then $m\angle A =$ ___?___.



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