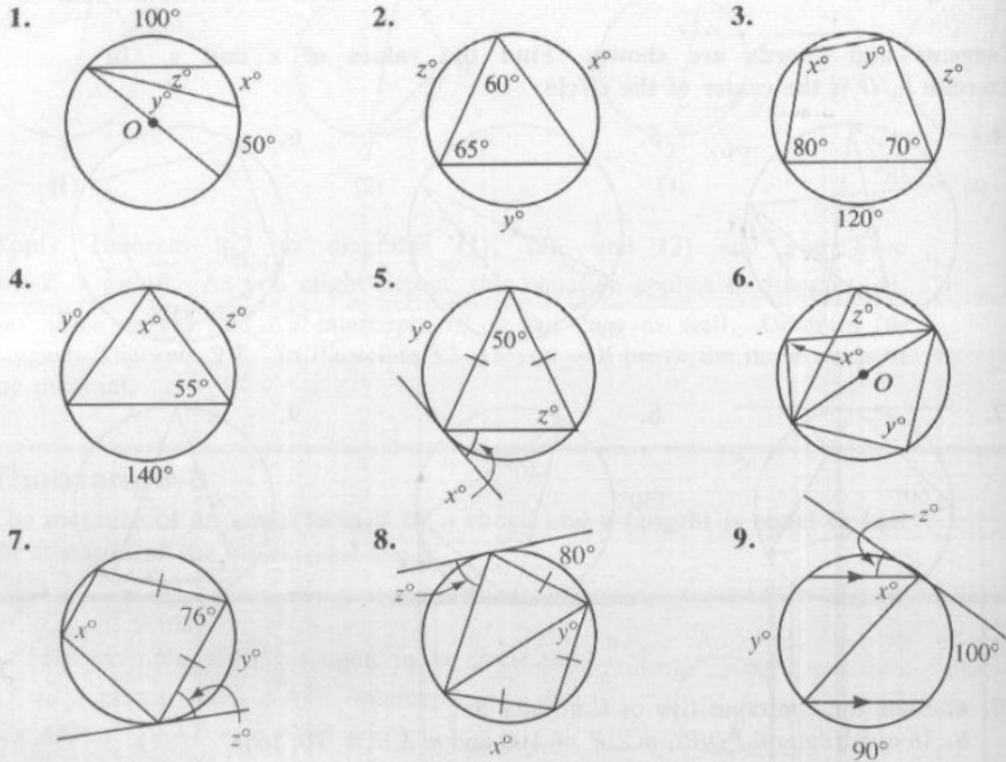


Written Exercises

In the diagrams that follow, O is the center of the circle. In Exercises 1–9 find the values of x , y , and z .

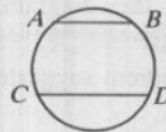


10. Prove: If two chords of a circle are parallel, the two arcs between the chords are congruent.

Given: $\overline{AB} \parallel \overline{CD}$

Prove: $\widehat{AC} \cong \widehat{BD}$

(Hint: Draw an auxiliary line.)



Exercises 19–21 refer to a quadrilateral $ABCD$ inscribed in a circle.

19. $m\angle A = x$, $m\angle B = 2x$, and $m\angle C = x + 20$. Find x and $m\angle D$.

20. $m\angle A = x^2$, $m\angle B = 9x - 2$, and $m\angle C = 11x$. Find x and $m\angle D$.

21. $m\angle D = 75$, $m\widehat{AB} = x^2$, $m\widehat{BC} = 5x$, and $m\widehat{CD} = 6x$. Find x and $m\angle A$.

22. Parallelogram $ABCD$ is inscribed in $\odot O$. Find $m\angle A$.

HW 9.5

■ Pg. 354

(WE):

#1-10, 12,

19-22

