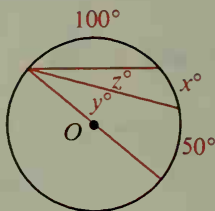


## Written Exercises

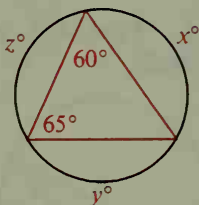
In the diagrams that follow,  $O$  is the center of the circle. In Exercises 1–9 find the values of  $x$ ,  $y$ , and  $z$ .

A

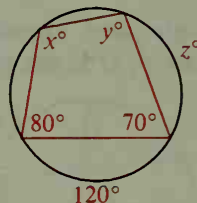
1.



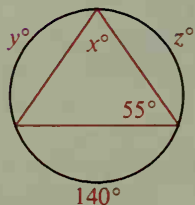
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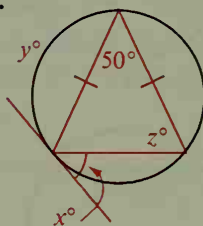
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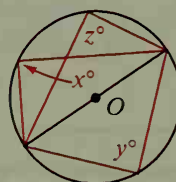
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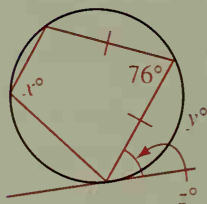
5.



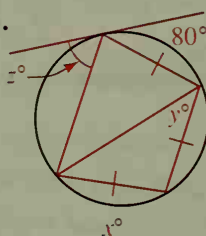
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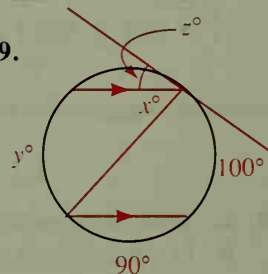
7.



8.



9.

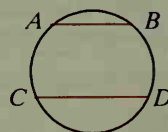


10. Prove: If two chords of a circle are parallel, the two arcs between the chords are congruent.

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

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

(Hint: Draw an auxiliary line.)



11. a. State the converse of the statement in Exercise 10.  
b. Is this converse true or false? If it is true, write a proof. If not, explain why it is false.

12. Prove:  $\triangle UXZ \sim \triangle YVZ$

