

# 12-2

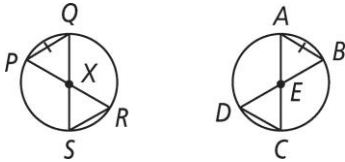
## Practice

Form G

### Chords and Arcs

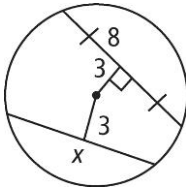
In Exercises 1 and 2, the  $\odot X \cong \odot E$ . What can you conclude?

1.

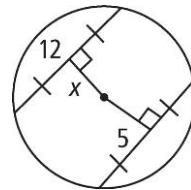


Find the value of  $x$ .

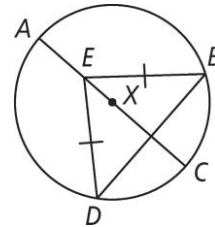
3.



4.

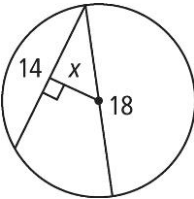


6. In  $\odot X$ ,  $\overline{AC}$  is a diameter and  $\overline{ED} \cong \overline{EB}$ . What can you conclude about  $\widehat{DC}$  and  $\widehat{CB}$ ? Explain.

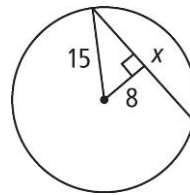


Find the value of  $x$  to the nearest tenth.

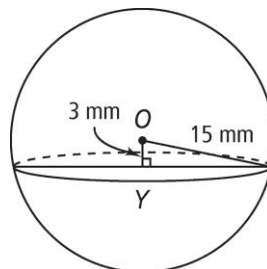
8.



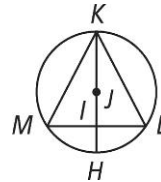
10.



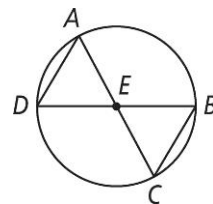
11. In the figure at the right, sphere  $O$  with radius 15 mm is intersected by a plane 3 mm from the center. To the nearest tenth, find the radius of the cross section  $\odot Y$ .



- 12. Given:**  $\odot J$  with diameter  $\overline{HK}$ ;  $\widehat{KL} \cong \widehat{LM} \cong \widehat{MK}$   
**Prove:**  $\triangle KIL \cong \triangle KIM$

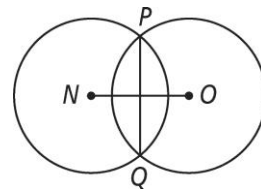


- 13. Given:**  $\overline{AC}$  and  $\overline{DB}$  are diameters of  $\odot E$ .  
**Prove:**  $\triangle EAD \cong \triangle ECB$



$\odot N$  and  $\odot O$  are congruent.  $\overline{PQ}$  is a chord of both circles.

- 14.** If  $NO = 12$  in. and  $\overline{PQ} = 8$  in., how long is the radius to the nearest tenth of an inch?
- 15.** If  $NO = 30$  mm and radius = 16 mm, how long is  $\overline{PQ}$  to the nearest tenth of a millimeter?



- 16.** If radius = 12 m and  $\overline{PQ} = 9$  m, how long is  $\overline{NO}$  to the nearest tenth?

- 18.** Two concentric circles have radii of 6 mm and 12 mm. A segment tangent to the smaller circle is a chord of the larger circle. What is the length of the segment to the nearest tenth.