

Lesson 5 Practice: Properties of Chords

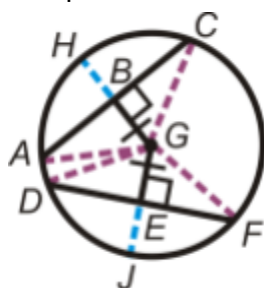
Learning Objectives

- I can apply the properties of chords to make conclusions about relationships within a circle.
 - I can use the relationship between arcs and chords in a circle.

Homework Questions

- Two chords in a circle are perpendicular and congruent. Does one of them have to be a diameter? Why or why not?

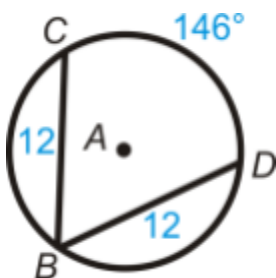
For questions #2 - 8, fill in the blanks using the following picture.



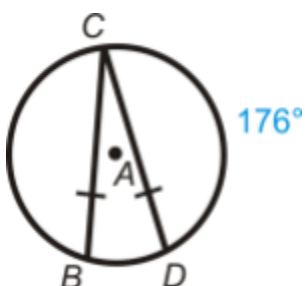
- _____ $\cong \overline{DF}$
- $\widehat{AC} \cong$ _____
- $\widehat{DJ} \cong$ _____
- _____ $\cong \overline{EJ}$
- $\angle AGH \cong$ _____
- $\angle DGF \cong$ _____
- List all the congruent radii in $\odot G$.

For questions #9 - 14, find the value of the indicated arc in $\odot A$.

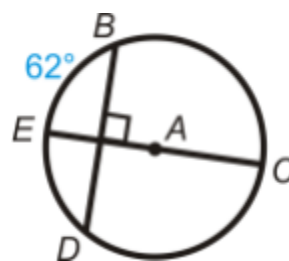
9. $m\widehat{BC}$



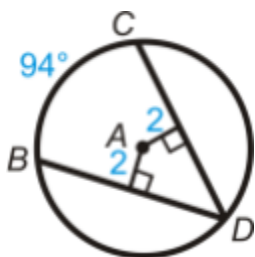
10. $m\widehat{BD}$



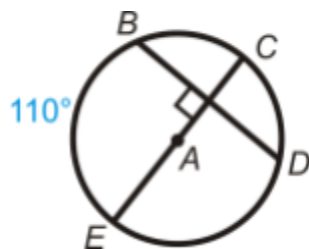
11. $m\widehat{BC}$



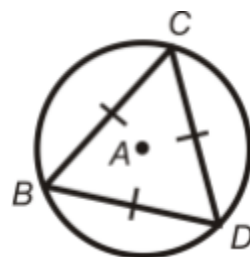
12. $m\widehat{BD}$



13. $m\widehat{BD}$

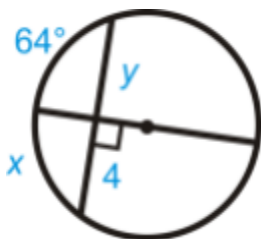


14. $m\widehat{BD}$

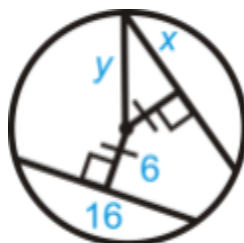


For questions #15 - 23, find the value of x and/or y .

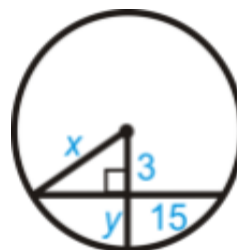
15.



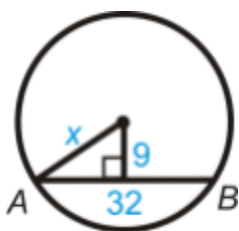
16.



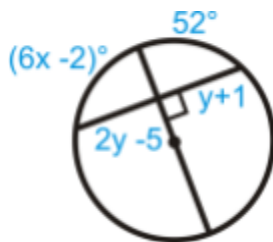
17.



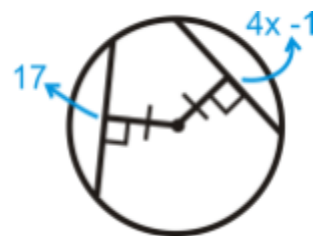
18. $AB = 32$



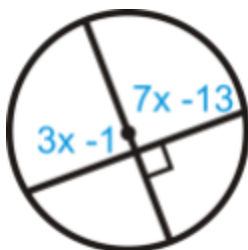
19.



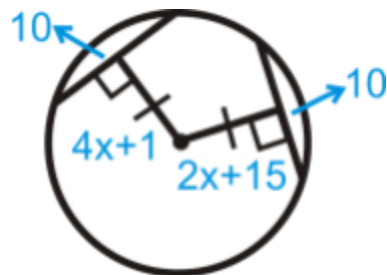
20.



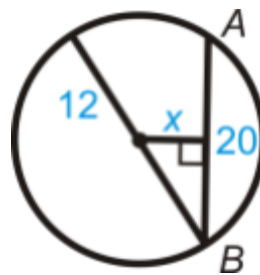
21.



22.

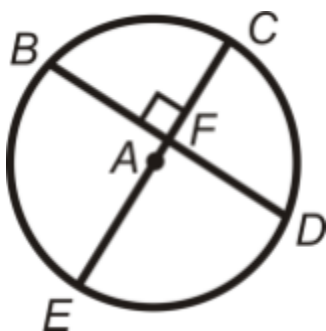


23.

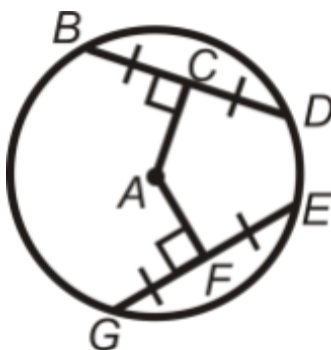


In problems #23 - 25, what can you conclude about the picture? State a theorem that justifies your answer. You may assume that A is the center of the circle.

23.



24.



25.

