

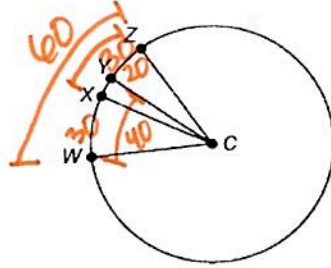
Key

11.1-11.4 Extra Practice

B

1. If $m\widehat{WY} = 40^\circ$, $m\widehat{XZ} = 30^\circ$, and $m\widehat{WZ} = 60^\circ$, what is the measure of \widehat{XY} ?

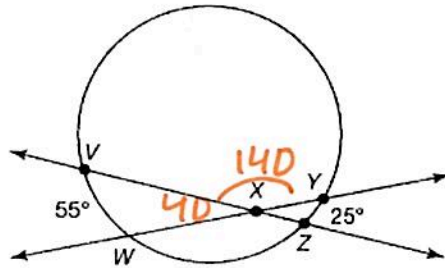
- a. 5°
- b. 10°
- c. 15°
- d. 20°



C

2. If $m\widehat{VW} = 55^\circ$ and $m\widehat{YZ} = 25^\circ$, what is the measure of $\angle VXY$?

- a. 80°
- b. 100°
- c. 140°
- d. 160°

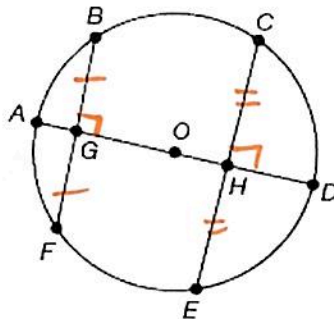


$$\frac{55 + 25}{2} = \frac{80}{2} = 40$$

B

3. A woodcarver draws cut lines on the top of a wooden disc. She uses the drawing of her design, as shown. In circle O , chords \overline{BF} and \overline{CE} are perpendicular to diameter \overline{AD} . Which of the following relationships is true?

- a. $AG = OH$
- b. $CH = HE$
- c. $FG = HD$
- d. $BG = HE$

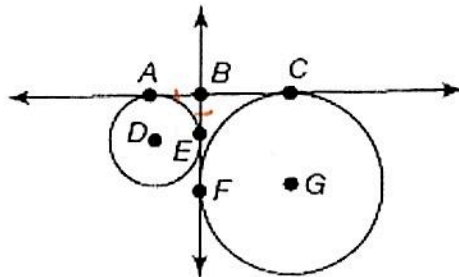


B

4. Veronica copies a map of the paths in a park with circular picnic areas. On her map, lines AC and BF are tangent to circle D at points A and E , respectively. Also, lines AC and BF are tangent to circle G at points C and F , respectively.

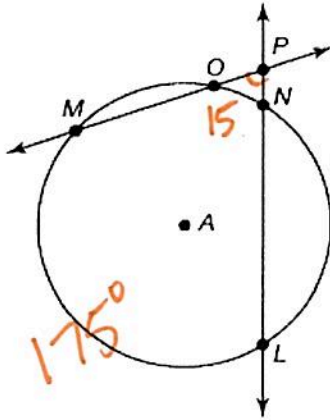
Which of the following statements is true?

- a. $CA = BF$
- b. $BA = BE$
- c. $BF = 2BE$
- d. $AB = EF$



- A 5. If $m\widehat{ML} = 175^\circ$ and $m\widehat{ON} = 15^\circ$, what is the $m\angle MPL$?

- a. 80°
 b. 85°
 c. 90°
 d. 95°

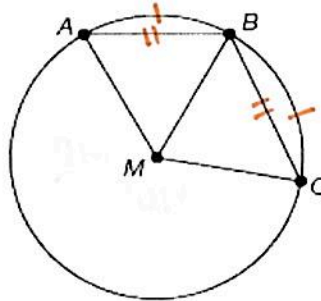


$$\frac{175 - 15}{2} = x$$

$$\frac{160}{2} = x$$

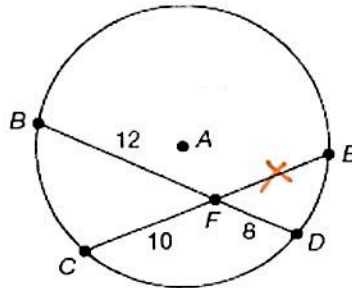
- B 6. A circular token in a board game has two triangles drawn on it, as shown. For which of the following conditions would $\widehat{AB} \cong \widehat{BC}$ in circle M?

- a. $\overline{MB} \cong \overline{MC}$
 b. $\overline{AB} \cong \overline{BC}$
 c. $\overline{CM} \cong \overline{AM}$
 d. $\overline{MA} \cong \overline{MB}$



- C 7. In circle A, chords \overline{BD} and \overline{CE} intersect at point F. The lengths in feet of each segment are shown. What is the length of \overline{FE} ?

- a. 4.8 feet
 b. 5 feet
 c. 9.6 feet
 d. 10 feet

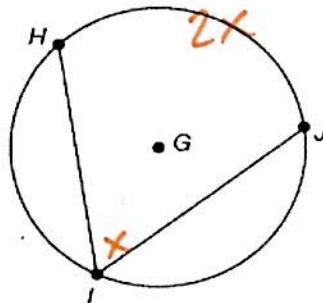


$$12 \cdot 8 = 10 \cdot x$$

$$\frac{96}{10} = \frac{10x}{10}$$

- A 8. In circle G, inscribed angle $\angle HIJ$ measures x degrees. Which of the following describes the measure of \widehat{HJ} ?

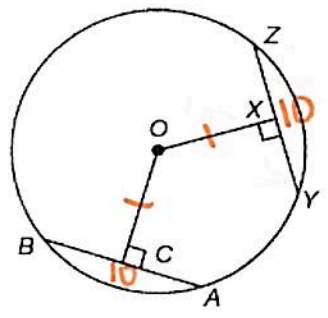
- a. $2x$
 b. x
 c. $\frac{1}{2}x$
 d. $\frac{1}{4}x$



C

9. Segments \overline{OX} and \overline{OC} are perpendicular to chords \overline{AB} and \overline{YZ} . If \overline{OX} is congruent to \overline{OC} , and the length of \overline{AB} is 10 millimeters, what is the length of \overline{YZ} ?

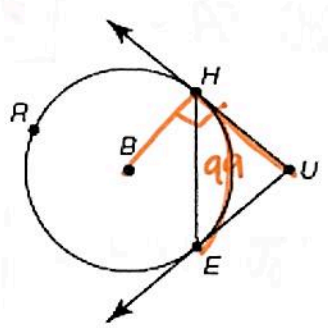
- a. 8 millimeters
- b. 9 millimeters
- c. 10 millimeters
- d. 12 millimeters



10. In circle B shown, $m\widehat{HE} = 99^\circ$.

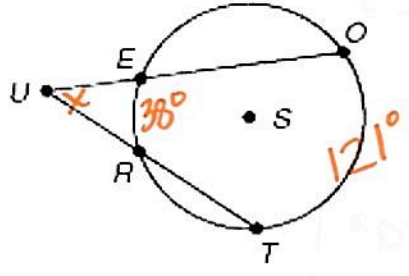
- a. Determine $m\angle HUE$.
- b. Determine $m\angle BHU$.

81°
 90°



$180 - 99 = 81$

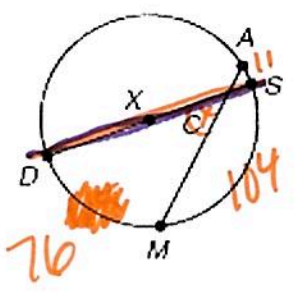
11. In circle S shown, $m\widehat{ER} = 38^\circ$ and $m\widehat{OT} = 121^\circ$. Determine $m\angle OUT$.



$$\frac{121 - 38}{2} = x$$

$$\boxed{41.5^\circ}$$

12. In circle X shown, $m\widehat{AS} = 11^\circ$ and $m\widehat{MS} = 104^\circ$. Determine $m\angle DCM$.

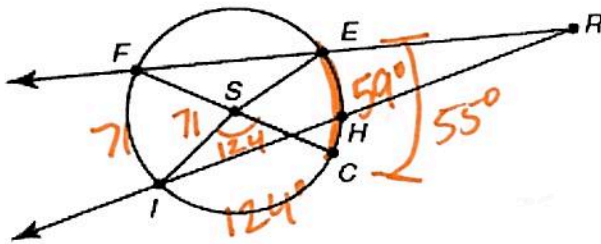


$$\frac{11 + 76}{2} = x$$

$$\frac{87}{2} = x$$

$$\boxed{x = 43.5^\circ}$$

Use circle S to answer question 13-16.



13. Suppose that $m\widehat{CE} = 59^\circ$. What is $m\widehat{CFE}$?

$$360 - 59 = \boxed{301^\circ}$$

14. Suppose that $m\angle CSI = 124^\circ$. What is $m\widehat{FI}$?

$$180 - 124 = \boxed{56^\circ}$$

15. Suppose that $m\widehat{CE} = 55^\circ$. What is $m\angle EFC$?

$$\frac{1}{2}(55) = \boxed{27.5^\circ}$$

16. Suppose that $m\angle FSI = 71^\circ$. What is $m\widehat{IC}$?

$$180 - 71 = \boxed{109^\circ}$$