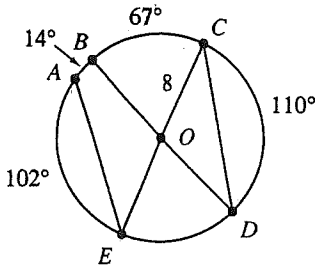
KEY

Geometry (H)
Section 9.3 - Problems Arcs Hw KEY

Short Answer

1. What is the radius of $\odot O$?
2. Name a minor arc.
3. Name a major arc.

5. Name two congruent arcs.
6. Name the central angle of $\overset{\frown}{CD}$.
7. Name two arcs with endpoint E.



Sample Exercises

8. Find $m\overset{\frown}{BC}$.
9. Find $m\overset{\frown}{CD}$.
10. Find $m\overset{\frown}{AC}$.
11. Find $m\overset{\frown}{ACD}$.
12. Find $m\overset{\frown}{AEC}$.
13. Find $m\overset{\frown}{ADB}$.
14. Explain why $\overline{BD}$ is not a diameter.

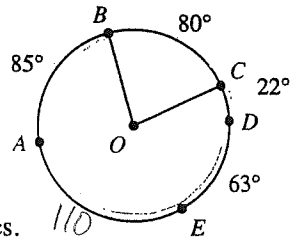
(1) 8
(2) $\overset{\frown}{AB}$, $\overset{\frown}{BC}$, $\overset{\frown}{CD}$, $\overset{\frown}{DE}$, $\overset{\frown}{EA}$
(3) $\overset{\frown}{AEB}$, $\overset{\frown}{ACE}$, $\overset{\frown}{EBD}$, $\overset{\frown}{DAC}$, $\overset{\frown}{BEC}$, more possible answers.
(5) $\overset{\frown}{BC} \cong \overset{\frown}{ED}$
(6) $\angle COD$
(7) $\overset{\frown}{ABE}$, $\overset{\frown}{AE}$, $\overset{\frown}{ECD}$, $\overset{\frown}{DE}$
(8) $m\overset{\frown}{BC} = 67$ (9) 110°
(10) 81° (11) 191°
(12) 279° (13) 346°
(14) b/c $m\overset{\frown}{BC} = 177°$, not 180°.

Exercises

A

Find each measure.

1. $m\overset{\frown}{BC}$
2. $m\overset{\frown}{AC}$
3. $m\overset{\frown}{BAD}$
4. $m\overset{\frown}{ADC}$
5. $m\angle BOC$
6. $m\overset{\frown}{AE}$
7. Name a pair of congruent arcs.

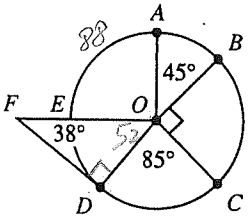


(1) 80 (2) 165 (3) 258
(4) 195 (5) 80 (6) 110
(7) $\overset{\frown}{AB} \cong \overset{\frown}{CE}$

$\overline{DF}$ **is a tangent to $\odot O$ from the external point F and $m\angle OFD = 38$. Find each measure.**

8. $m\overset{\frown}{AB}$
9. $m\overset{\frown}{AD}$
10. $m\overset{\frown}{AC}$
11. $m\overset{\frown}{BC}$
12. $m\overset{\frown}{ADC}$
13. $m\overset{\frown}{ACD}$
14. $m\angle DOF$
15. $m\overset{\frown}{ED}$
16. $m\overset{\frown}{AE}$

52 52 88

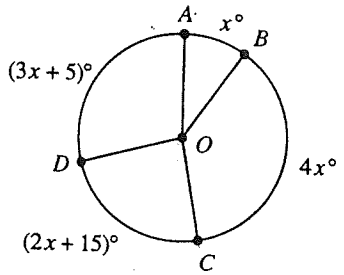


(8) 45
(9) 140
(10) 135
(11) 90
(12) 225
(13) 220

B

Find each measure.

17. $m\angle AOB$
18. $m\angle BOC$
19. $m\angle COD$
20. $m\angle AOD$



3x+5
2x+15
5x
10x+20=360
10x=340
x=34

(17) 34. (18) 136
(19) 83 (20) 107