

12.1: Central & Inscribed Angle & Arc Measures

Name _____ Hr _____

True/False.

- The diameter is the longest possible chord. _____
- The sides of an inscribed angle are chords. _____
- A circle has only one radius. _____
- A secant must pass through the center. _____
- Given a point on a circle, there is only one possible tangent line that passes through that point. _____
- If a central angle is 80° then the major arc that corresponds to that angle is 100° . _____

Identify the term that best describes the given line, segment, or point.

7. \overline{AF}

8. \overline{PF}

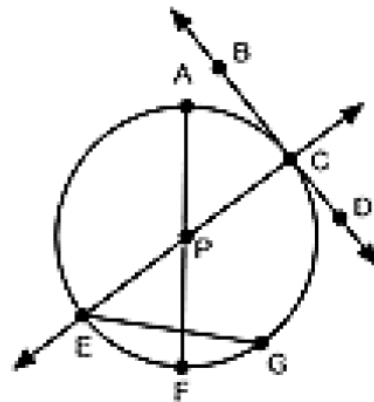
9. C

10. \overline{BD}

11. \overline{EG}

12. \overline{CE}

13. P

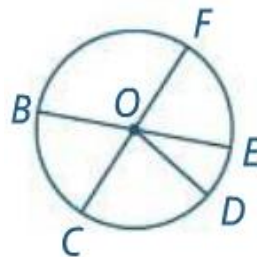


Review Minor and Major Arcs. Give two examples of each of the following for Circle O.

14. a) Minor Arcs

15. b) Major Arcs

16. c) Semicircles

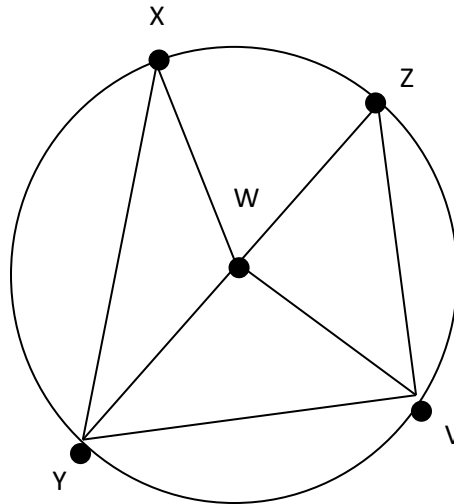


Inscribed Angles and Arcs

Show your work by filling out the diagrams.

In $\odot W$, $m\overset{\frown}{XZ} = 60^\circ$, $m\angle VYZ = 40^\circ$, and \overline{YZ} is a diameter. Find the following :

- | | |
|------------------------------|-----------------------------|
| 17. $m\angle XYW$ | 18. $m\angle XWZ$ |
| 19. $m\angle XWY$ | 20. $m\angle YVZ$ |
| 21. $m\overset{\frown}{XYZ}$ | 22. $m\overset{\frown}{VZ}$ |
| 23. $m\overset{\frown}{XY}$ | 24. $m\angle VZY$ |
| 25. $m\overset{\frown}{VY}$ | 26. $m\angle WXY$ |



In circle P, $m\angle LPJ = 30^\circ$, $m\angle KMJ = 45^\circ$, and \overline{JM} is a diameter. Find the following:

- | | |
|------------------------------|-----------------------------|
| 27. $m\angle LMP$ | 28. $m\angle JPK$ |
| 29. $m\angle MJK$ | 30. $m\angle LPM$ |
| 31. $m\overset{\frown}{MLJ}$ | 32. $m\angle MPK$ |
| 33. $m\angle JKP$ | 34. $m\overset{\frown}{LJ}$ |
| 35. $m\overset{\frown}{KM}$ | 36. $m\angle PLM$ |
| 37. $m\overset{\frown}{JK}$ | 38. $m\angle KJP$ |
| 39. $m\overset{\frown}{ML}$ | 40. $m\angle PKM$ |

