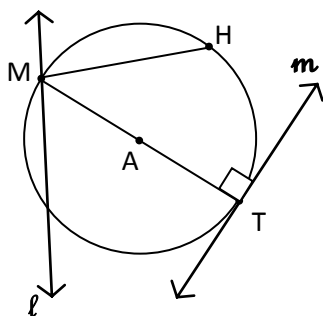


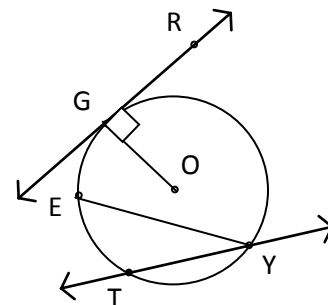
Name _____

Matching. Use the Word Bank below. Use some words more than once.

- ___ 1. \overline{MH}
- ___ 2. \overline{AT}
- ___ 3. line ℓ
- ___ 4. Point T
- ___ 5. \overline{MT}
- ___ 6. \widehat{MTH}
- ___ 7. line m
- ___ 8. \widehat{MH}
- ___ 9. Point A



- ___ 10. Point O
- ___ 11. \overleftrightarrow{GR}
- ___ 12. \overline{YE}
- ___ 13. \widehat{GYE}
- ___ 14. Point G
- ___ 15. \overline{TY}
- ___ 16. \overline{GO}
- ___ 17. \widehat{GT}
- ___ 18. \overleftrightarrow{TY}



Word Bank

- | | | | | |
|--------------|--------------|-----------|----------------------|----------|
| A. Minor Arc | B. Major Arc | C. Radius | D. Diameter | E. Chord |
| F. Secant | G. Tangent | H. Center | I. Point of Tangency | |

Sketch a diagram.

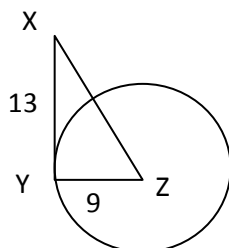
19. Circle T with radii \overline{TR} and \overline{TD} and chord \overline{DR} .

20. Circle W with diameter \overline{XY} , and \overleftrightarrow{UV} tangent at point Y.

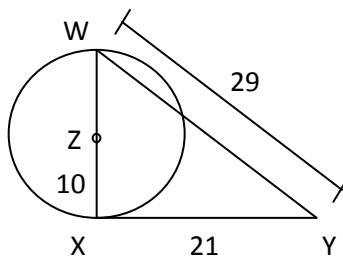
21. Circle O with chords \overline{MN} , \overline{NT} and \overline{MT} , and secant \overleftrightarrow{MN}

Determine whether XY is tangent to Circle Z.

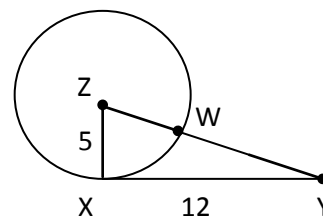
22. Given: $XZ = 15$



- 23.

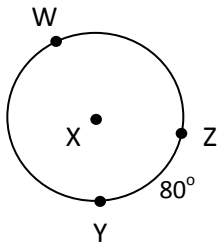


24. Given: $WY = 8$

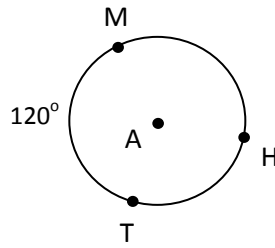


Find the indicated arc lengths.

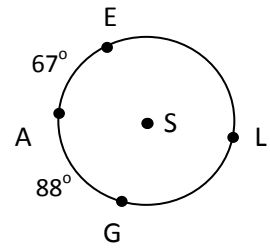
25. $m \widehat{YWZ} = \underline{\hspace{2cm}}$



26. $m \widehat{MHT} = \underline{\hspace{2cm}}$

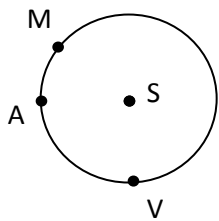


27. $m \widehat{EG} = \underline{\hspace{2cm}}$; $m \widehat{ELG} = \underline{\hspace{2cm}}$

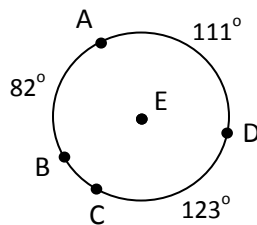


28. $m \widehat{MA} = \underline{\hspace{2cm}}$

Given: $m \widehat{MVA} = 330^\circ$

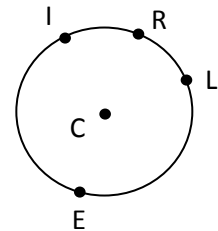


29. $m \widehat{BDC} = \underline{\hspace{2cm}}$; $m \widehat{BC} = \underline{\hspace{2cm}}$

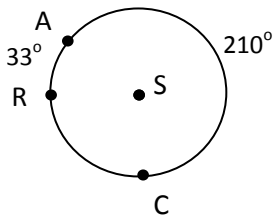


30. $m \widehat{LE} = \underline{\hspace{2cm}}$; $m \widehat{IEL} = \underline{\hspace{2cm}}$

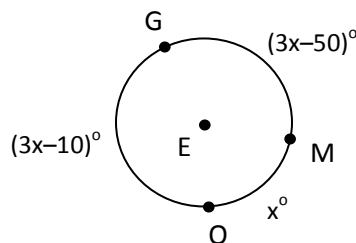
Given: $m \widehat{IR} = 45^\circ$; $m \widehat{RL} = 45^\circ$
and $m \widehat{IE} = 124^\circ$



31. $m \widehat{RC} = \underline{\hspace{2cm}}$; $m \widehat{RCA} = \underline{\hspace{2cm}}$

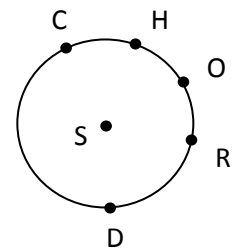


32. $m \widehat{OM} = \underline{\hspace{2cm}}$



33. $m \widehat{CH} = \underline{\hspace{2cm}}$

Given: $CH = HO = OR$,
 $m \widehat{CDR} = 246^\circ$



APPLICATION: A Center Pivot is a large sprinkler system used to irrigate crops. The long sprinkler system is attached to a pivot in the center of the field and rotates around the center pivot.

If the sprinkler system is 400m long, the point of tangency between the circle and the road is 300m from the house how far is the pivot's central hub from the house?



Aerial view of center pivot crops/fields.

