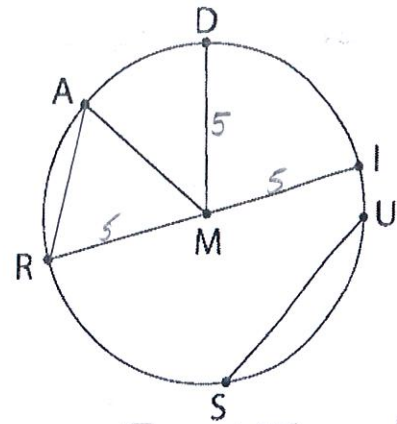


HOMEWORK - Circle Vocabulary and Central Angles

For problems 1 - 8, refer to $\odot M$.

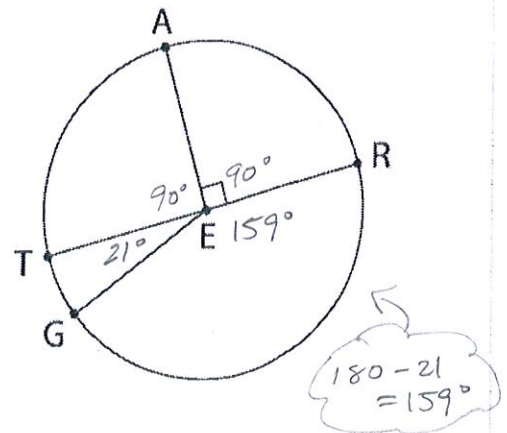
1. Name the center of the circle: $\odot M$
2. Name a chord that is also a diameter. \overline{RI}
3. If $MD = 5$, find RI . 10
4. Is \overline{MI} a chord of $\odot M$? No What is it? Radius
5. Is $\overline{MA} = \overline{MI}$? yes Why? They are both radii
6. Name four radii of $\odot M$. $\overline{MR}, \overline{MA}, \overline{MD}, \overline{MI}$
7. If $RI = 11.8$, find MA . $\frac{11.8}{2} = 5.9$



8. Draw \overline{AR} . What type of triangle is $\triangle MAR$? Isosceles Explain. \overline{AM} and \overline{RM} are both radii of $\odot M$ so they are congruent to each other. Therefore, $\triangle MAR$ has 2 congruent sides making it an isosceles \triangle .

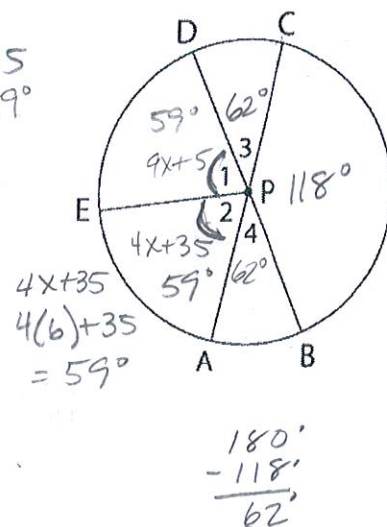
For problems 9 - 13, refer to $\odot E$. If $m\angle TEG = 21^\circ$ and \overline{TR} is a diameter, determine whether each arc is a minor arc, major arc, or a semicircle. Then, find the degree measure of each arc.

	Minor, major, or semicircle	Arc measure
9. \widehat{TG}	<u>minor</u>	<u>21°</u>
10. \widehat{ATR}	<u>major</u>	<u>270°</u>
11. \widehat{TAR}	<u>Semicircle</u>	<u>180°</u>
12. \widehat{ARG}	<u>Major</u>	<u>249°</u>
13. \widehat{AR}	<u>minor</u>	<u>90°</u>



In $\odot P$, $m\angle 1 = m\angle 2$, $m\angle 1 = 9x + 5$, $m\angle 2 = 4x + 35$ with diameters \overline{AC} and \overline{BD} . Find each of the following.

- $$9x + 5 = 4x + 35$$
- $$5x = 30$$
- $$x = 6$$
- $$9(6) + 5 = 59$$
14. $x =$ 6
 15. $m\angle 3 =$ 62°
 16. $m\angle CPB =$ 118°
 17. $m\widehat{AE} =$ 59°
 18. $m\widehat{EC} =$ 121°
 $59^\circ + 62^\circ$
 19. $m\widehat{CBE} =$ 239°



$$\begin{array}{r} 180^\circ \\ - 118^\circ \\ \hline 62^\circ \end{array}$$