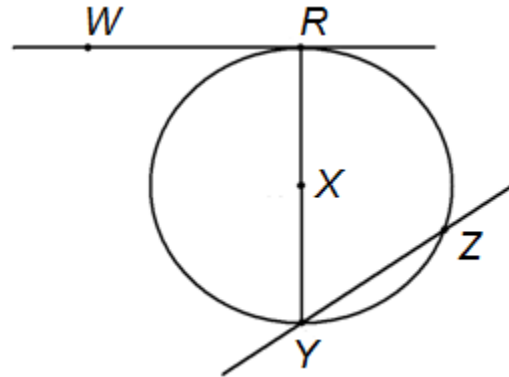


ANSWERS

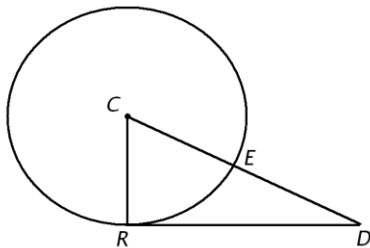
DIRECTIONS: For #1-6, write a segment, line, ray, or point from this circle which matches the words. **(Only one answer is necessary - more than one are listed)**

1. A chord $\overline{YZ}, \overline{RY}, \overline{RZ}$
2. A diameter \overline{RY}
3. A secant $\overrightarrow{YZ}, \overrightarrow{RY}, \overrightarrow{RZ},$ & more
4. A radius $\overline{XR}, \overline{XY}, \overline{XZ}$
5. A point of tangency **R**
6. A tangent $\overrightarrow{RW}, \overrightarrow{RW}, \overrightarrow{RW}$



DIRECTIONS: For #7-26, solve the problems (use radicals when necessary). It will help to write in the diagrams (or make your own when none are provided).

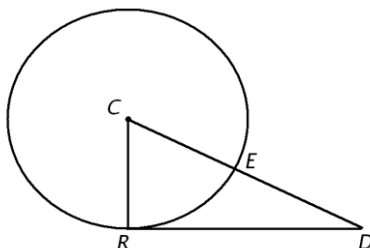
7. What is the diameter of a circle with a radius of 18? **36**
8. What is the radius of a circle with a diameter of 28? **14**
9. \overline{RD} is tangent to circle C at R , $m\angle RCE = 60^\circ$, and $RC = 22$. Find RD and DE .



$RD = 22\sqrt{3}$

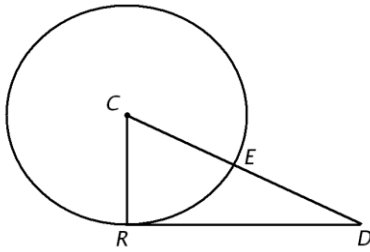
$DE = 22$

10. \overline{RD} is tangent to circle C at R , $RD = 24$, and $CD = 25$. Find RC .



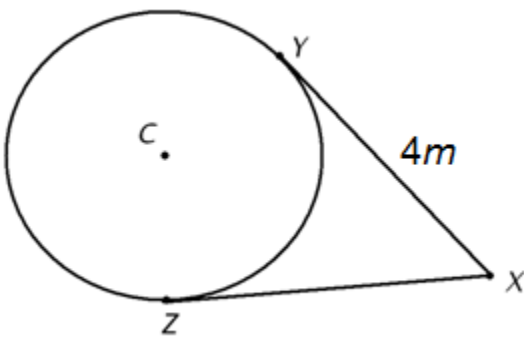
$RC = 7$

11. \overline{RD} is tangent to circle C at R , $DE = 8$, and $CE = 6$. Find RD .



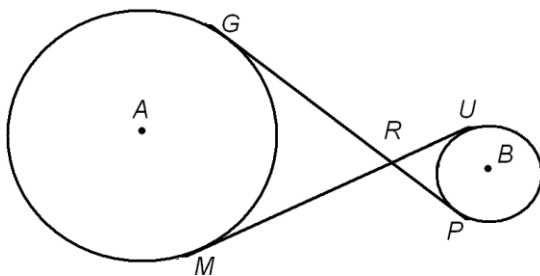
$RD = 4\sqrt{10}$

12. \overline{XY} is tangent to circle C at Y , \overline{XZ} is tangent to circle C at Z , and $XZ = 48$. Solve for m .



$m = 12$

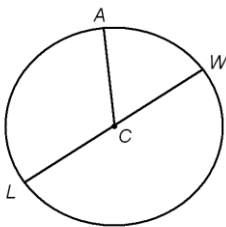
13. \overline{GP} and \overline{MU} are common internal tangents of circle A and circle B , $GR = 14$ and $RU = 5$. Find GP and MU .



$GP = 19$

$MU = 19$

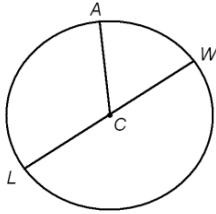
14. In circle C , $m\angle WCA = 60^\circ$. Find $m\widehat{AW}$ and $m\widehat{LA}$.



$m\widehat{AW} = 60^\circ$

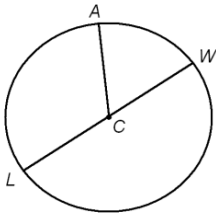
$m\widehat{LA} = 120^\circ$

15. In circle C , $m\widehat{AW} = 63^\circ$. Find $\angle WCA$.



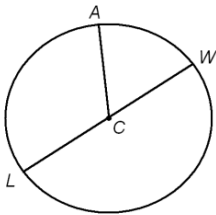
$$m\angle WCA = 63^\circ$$

16. In circle C , $m\angle LCA = 100^\circ$. Find $m\widehat{AWL}$.



$$m\widehat{AWL} = 260^\circ$$

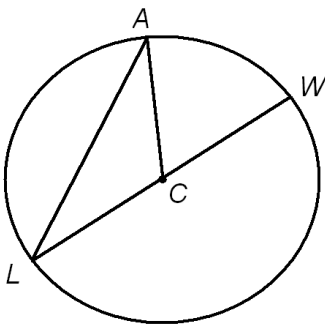
17. In circle C , $m\widehat{WLA} = 293^\circ$. Find $\angle LCA$.



$$m\angle LCA = 113^\circ$$

18. At 3 o'clock, the hands of a clock form an angle of what size (in degrees)? 90°

19. In circle C , $m\angle LAC = 39^\circ$. Find $m\angle ALC$, $m\angle ACW$, and $m\widehat{AW}$.

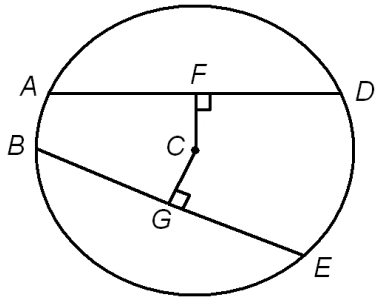


$$m\angle ALC = 39^\circ$$

$$m\angle ACW = 78^\circ$$

$$m\widehat{AW} = 78^\circ$$

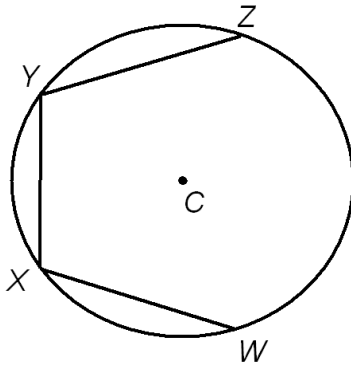
20. In circle C , $CF = 7$, $CG = 7$, and $BG = 19$. Find AD and GE .



$$AD = 38$$

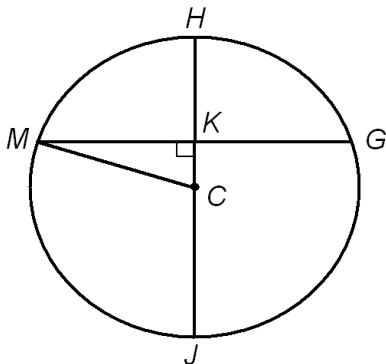
$$GE = 19$$

21. In circle C , $YZ = 8$, $XW = 8$, $XY = 8$, and $m \widehat{WZ} = 162^\circ$. Find $m \widehat{YZ}$.



$$m \widehat{YZ} = 66^\circ$$

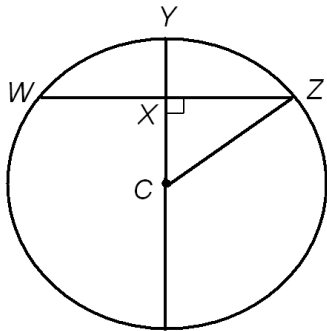
22. In circle C , $KC = 3$ and $JC = 5$. Find MK and KG .



$$MK = 4$$

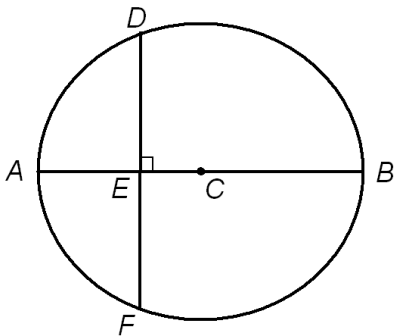
$$KG = 4$$

23. In circle C , $XZ = 8$ and $CZ = 10$. Find XY .



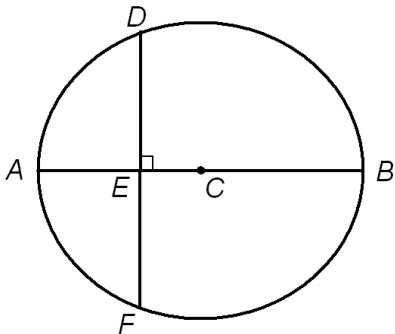
$XY = 4$

24. In circle C , $m \widehat{ABF} = 320^\circ$. Find $m \widehat{DF}$.



$m \widehat{DF} = 80^\circ$

25. In circle C , $AB = 24$ and $DF = 20$. Find CE .



$CE = 2\sqrt{11}$

26. Find the length of a chord that is 4 cm from the center of a circle with a radius of 6 cm.

Length of chord = $4\sqrt{5}$ cm