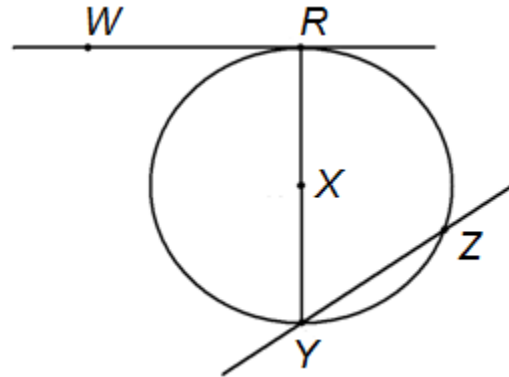Name _____ Date _____ Period _____

DIRECTIONS: For #1-6, write a segment, line, ray, or point from this circle which matches the words.

1. A chord   _____

2. A diameter   _____

3. A secant   _____

4. A radius   _____

5. A point of tangency _____

6. A tangent   _____

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).
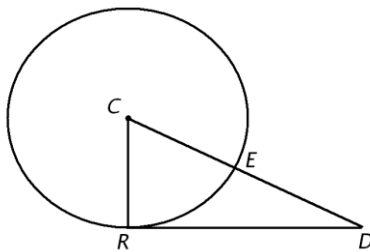
7. What is the diameter of a circle with a radius of 18?   _____

8. What is the radius of a circle with a diameter of 28?   _____

9. $\overline{RD}$ is tangent to circle C at R, $m\angle RCE = 60°$, and $RC = 22$. Find RD and DE.
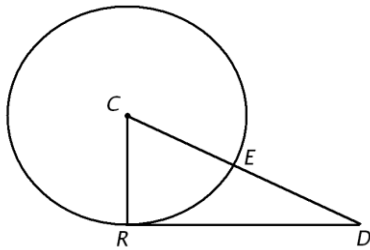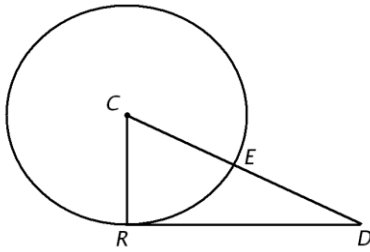
$RD =$ _____

$DE =$ _____

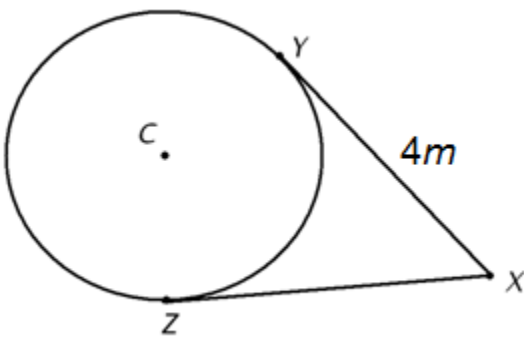10. $\overline{RD}$ is tangent to circle C at R, $RD = 24$, and $CD = 25$. Find RC.

$RC =$ _____

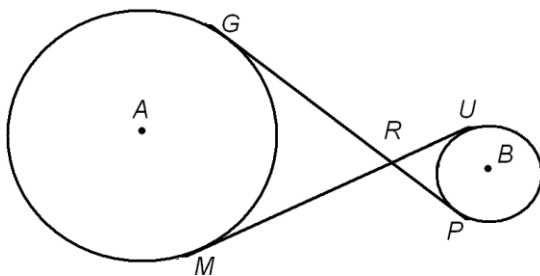**11.** $\overline{RD}$ is tangent to circle C at R, $DE = 8$, and $CE = 6$. Find RD.

$RD = $ _____

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.
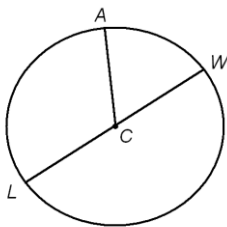
$m = $ _____

4m

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 = $ _____

$MU = $ _____

14. In circle C, $m\sphericalangle WCA = 60°$. Find $m\,\overset{\frown}{AW}$ and $m\,\overset{\frown}{LA}$.

$m\,\overset{\frown}{AW} = $ _____

$m\,\overset{\frown}{LA} = $ _____

15. In circle C, $m \overset{\frown}{AW} = 63°$. Find $\measuredangle WCA$.
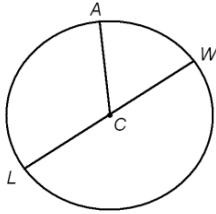
$m \measuredangle WCA =$ _____

16. In circle C, $m\measuredangle LCA = 100°$. Find $m \overset{\frown}{AWL}$.
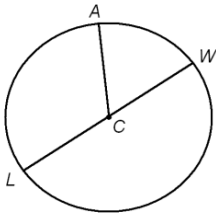
$m \overset{\frown}{AWL} =$ _____

17. In circle C, $m \overset{\frown}{WLA} = 293°$. Find $\measuredangle LCA$.
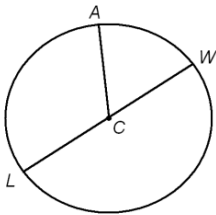
$m \measuredangle LCA =$ _____

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

19. In circle C, $m\measuredangle LAC = 39°$. Find $m\measuredangle ALC$, $m\measuredangle ACW$, and $m \overset{\frown}{AW}$.

$m \measuredangle ALC =$ _____

$m \measuredangle ACW =$ _____
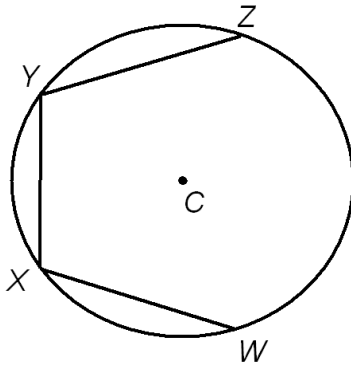
$m \overset{\frown}{AW} =$ _____
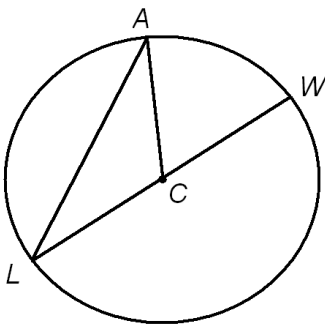
20. In circle C, $CF = 7$, $CG = 7$, and $BG = 19$. Find AD and GE.
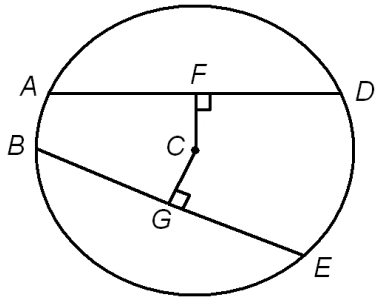
$AD\ =$ _____

$GE =$ _____

21. In circle C, $YZ = 8$, $XW = 8$, $XY = 8$, and $m\ \overset{\frown}{WZ} = 162°$. Find $m\ \overset{\frown}{YZ}$.
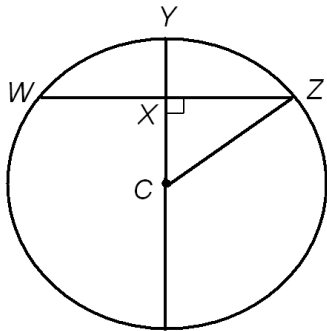
$m\ \overset{\frown}{YZ} =$ _____

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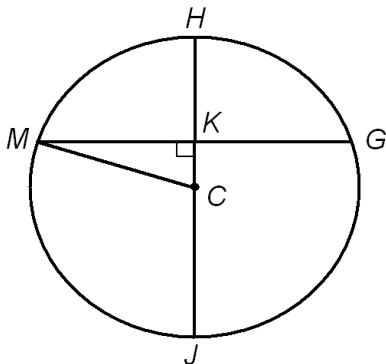
$MK =$ _____

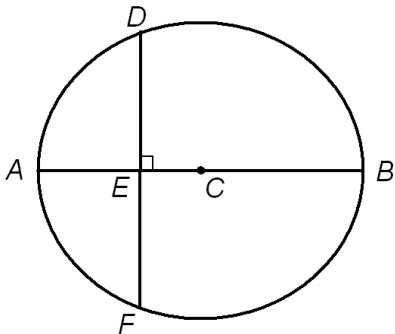$KG =$ _____

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

$XY =$ _____

24. In circle C, $m\,\overset{\frown}{ABF} = 320°$. Find $m\,\overset{\frown}{DF}$.
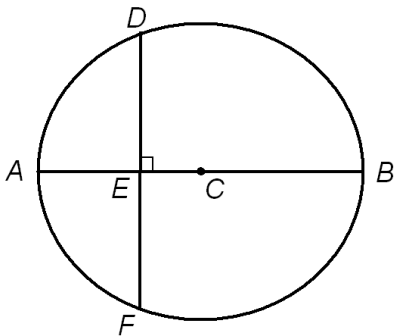
$m\,\overset{\frown}{DF} =$ _____

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

CE= _____

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 = _____ cm