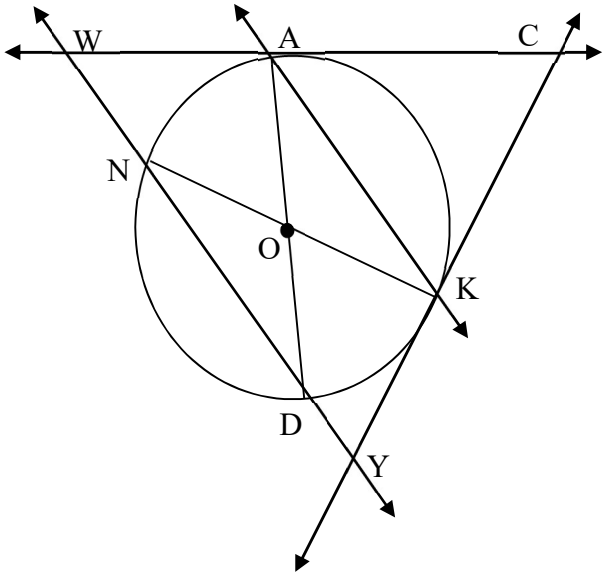
Geometry B CH 10 Circles Self Assessment Good luck to _____

#1 – 10: Write the word that best describes each circle part. Each word in the Word Bank will be used once.



WORD BANK:

Central Angle	Chord	Diameter
Inscribed Angle	Major Arc	Minor Arc
Radius	Secant	
Semicircle	Tangent	

1. $\overset{\frown}{AD}$ _____ 2. $\overline{ND}$ _____

3. $\overline{OK}$ _____ 4. $\overset{\frown}{DK}$ _____

5. $< AOK$ _____ 6. $\overleftrightarrow{YW}$ _____

7. $\overline{NK}$ _____ 8. $\overset{\frown}{KDA}$ _____

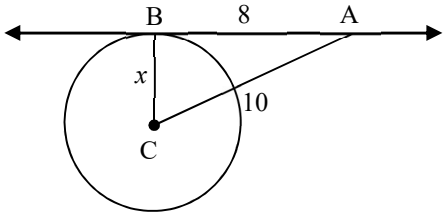
9. $< AKN$ _____ 10. $\overleftrightarrow{WC}$ _____

11. What is the difference between a secant and a chord? _____

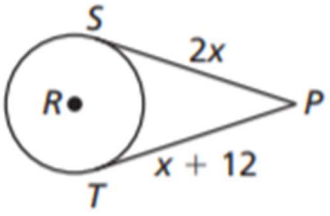
_____.

#12-13: Using properties of tangent lines, solve for *x*.

12. $\overleftrightarrow{AB}$ is tangent to circle C.



13. $\overline{SP}$ and $\overline{TP}$ are both tangent to Circle R



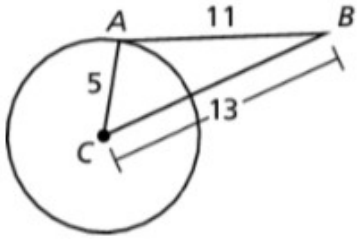
14. What is a tangent line and how can you verify that a line is tangent to a circle?

_____

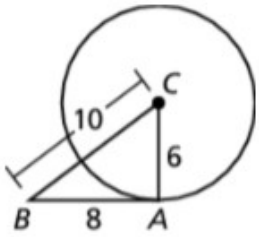
_____.

In Exercises 14 and 15, tell whether $\overline{AB}$ is tangent to $\odot C$. Explain your reasoning.

14. Yes/No Why:_____

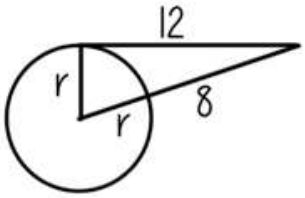


15. Yes/No Why:_____



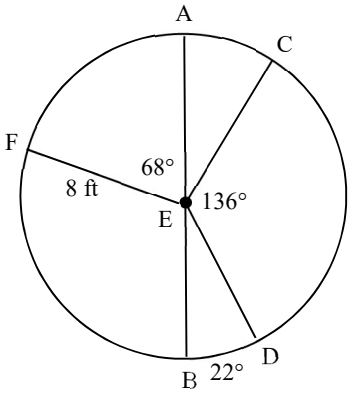
16. Given AB is tangent to circle C:

Solve for r. (Use FOIL method)



#17-21: Find the indicated measure or length.

17. $m\angle AEC =$
    $m\angle BEF =$
    $m\angle BED =$



18. $m\widehat{CD} =$ _____ °

19. $m\widehat{BC} =$ _____ °

20. $m\widehat{BFC} =$ _____ °

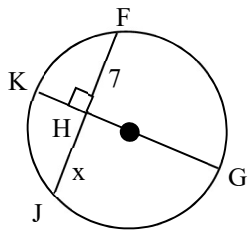
21. **length** of $\widehat{AF}$ (Use ArcLength Formula) length: _____

22. Using the picture above, state if the arc is a Major Arc, Minor Arc, or Semi Circle:

$\widehat{AC}$ _____ $\widehat{AB}$ _____ $\widehat{DFC}$ _____

#23-28: Solve for the variable(s).

23.



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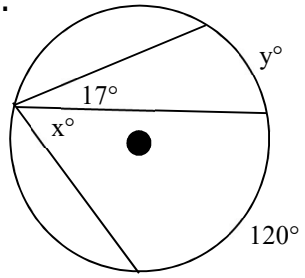

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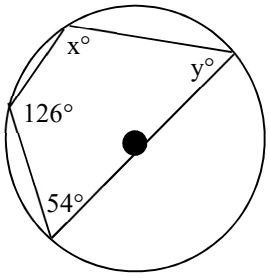

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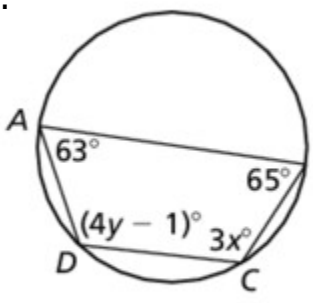

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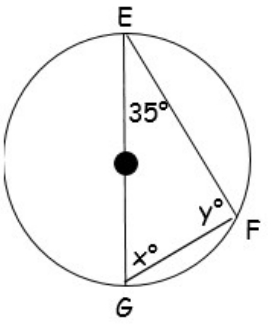

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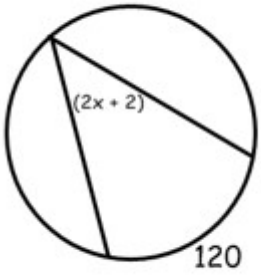
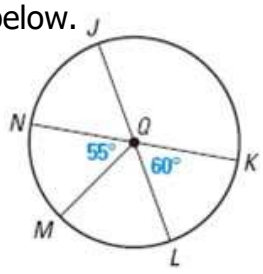


29. If the diameter of a circle is 22 cm, what is the radius of the circle? r = _____

30. Solve for all central angles in the circle in the diagram below.

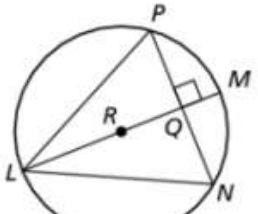


31. What is the difference between an inscribed angle and a central angle? You may draw a picture to demonstrate.

32. In the diagram of $\odot U$, which congruence relation is *not* necessarily true?

A. $\overline{PQ} \cong \overline{QN}$ **B.** $\overline{NL} \cong \overline{LP}$

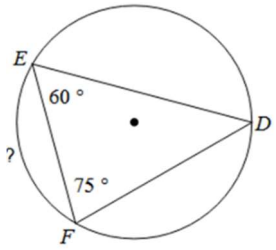
C. $\widehat{MN} \cong \widehat{MP}$ **D.** $\widehat{PN} \cong \widehat{PL}$



33. Use the circle to answer the questions below.

a. Find $m\widehat{EF}$

_____



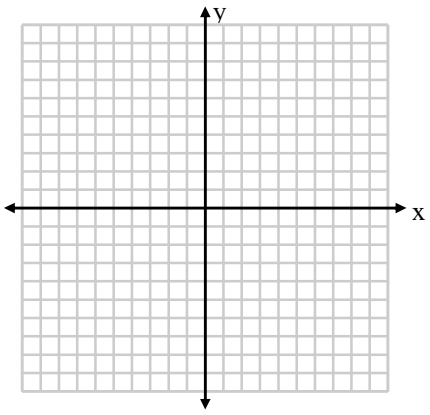
b. Find the length of $\widehat{EF}$ given that the radius is 10 cm

_____

#34-35: EQUATION of a Circle: $(x-h)^2 + (y-k)^2 = r^2$

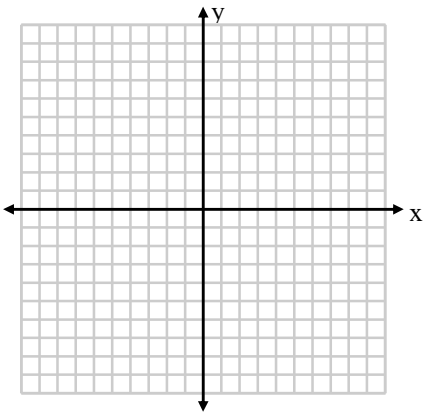
Graph the circle and provide center and radius.

34. $(x - 3)^2 + (y + 5)^2 = 16$



r = _____ Center= _____

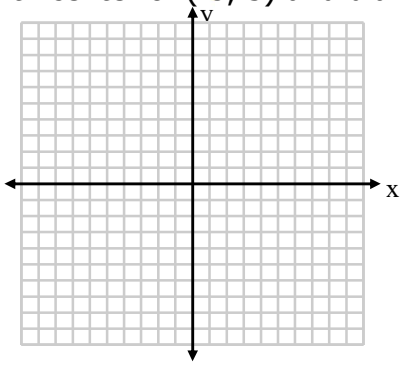
35. $(x + 2)^2 + (y - 1)^2 = 49$



r = _____ Center = _____

36. Write the equation of the circle with center of (-5, 3) and diameter of 10 AND graph the circle.

Equation:_____



#37-38: Write the standard equation of the circle with the given center and radius.

37. center (-5, 0) radius 6

38. center (-3, -4) radius 11

Equation:_____ Equation**:**_____