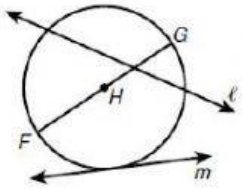
#5 for Tic-Tac-Toe Board Geometry Ch 11 Name _____

Identify each line or segment that intersects each circle.

1.



$\overline{FG}$: _____

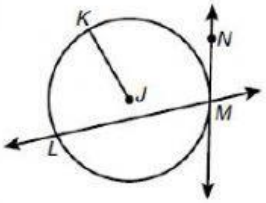
$\overline{GH}$: _____

$\overline{FH}$: _____

line ℓ: _____

line m: _____

2.



$\overline{JK}$: _____

$\overline{LM}$: _____

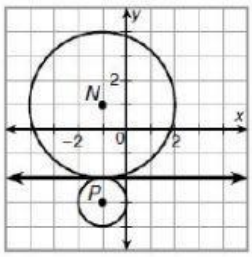
$\overleftrightarrow{LM}$: _____

$\overleftrightarrow{NM}$: _____

Find the length of each radius. Identify the point of tangency and write the equation of the tangent line at that point.

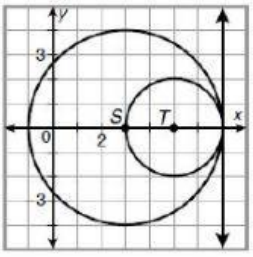
3. radius ⊙N = _____ radius ⊙P = _____

Pt of tangency: _____ equation _____



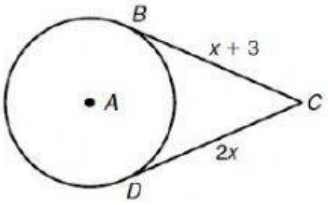
4. radius ⊙S = _____ radius ⊙T = _____

Pt of tangency: _____ equation _____

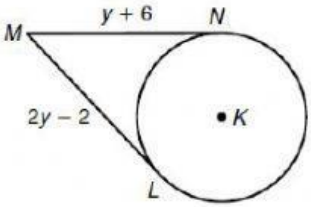


The segments in each figure are tangent to the circle. Find each length.

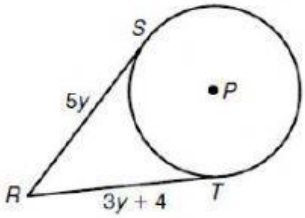
5. BC = _____



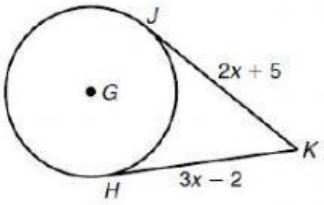
6. LM = _____



7. RS = _____



8. JK = _____



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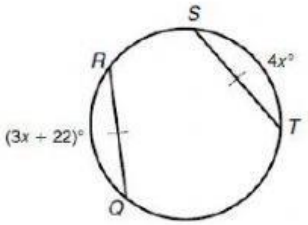
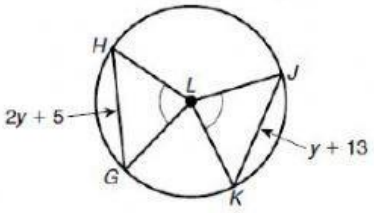
Find each measure.

9. $\overline{QR} \cong \overline{ST}$. Find $m\overset{\frown}{QR}$ = _____

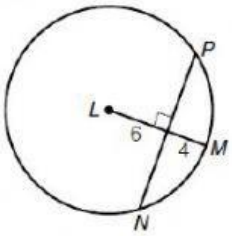


10. $\angle HLG \cong \angle KLJ$. Find GH = _____

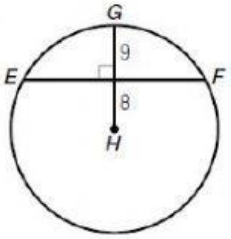


Find each length to the nearest tenth.

11. NP = _____

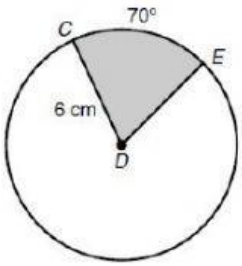


12. EF = _____

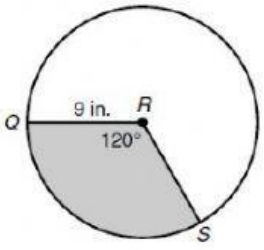


Find the area of each sector. Give your answer in terms of π and rounded to the nearest hundredth.

13. Sector CDE = _____



14. Sector QRS = _____



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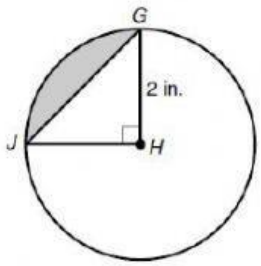
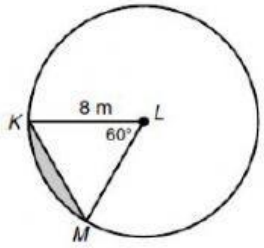
Find the area of each segment to the nearest hundredth.

15. Area segment JHG = _____

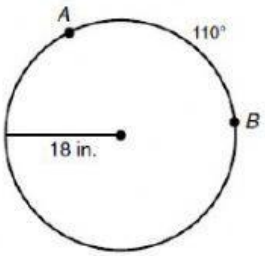


16. Area segment KLM = _____

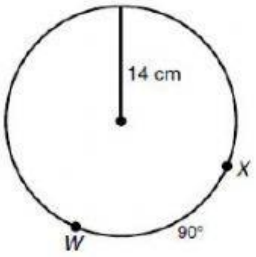


Find each arc **length** (not measure). Give your answer in terms of π and rounded to the nearest hundredth.

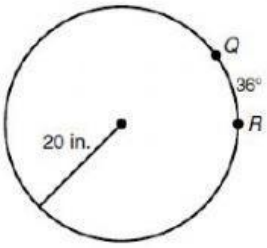
17. Length of $\overset{\frown}{AB}$ = _____



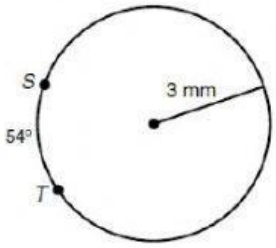
18. Length of $\overset{\frown}{WX}$ = _____



19. Length of $\overset{\frown}{QR}$ = _____



20. Length of $\overset{\frown}{ST}$ = _____



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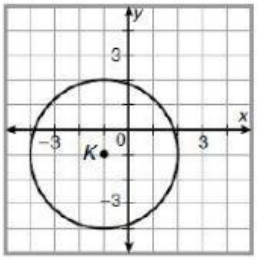
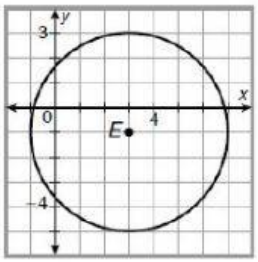
Write the equation of each circle.

21.



22.



23.

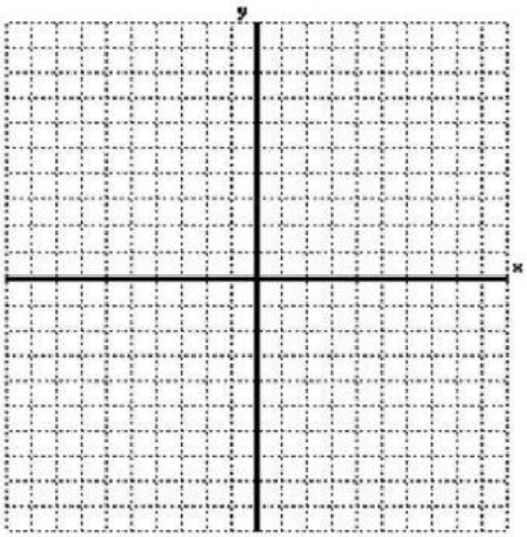
⊙T with center $T(4, 5)$ and radius 8

24.

⊙B that passes through (3, 6) and has center $B(-2, 6)$

Graph each equation.

25. $(x - 1)^2 + (y - 2)^2 = 9$



26. $(x - 3)^2 + (y + 1)^2 = 4$