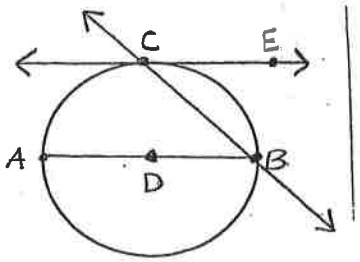
Geometry
Unit 7: Circles

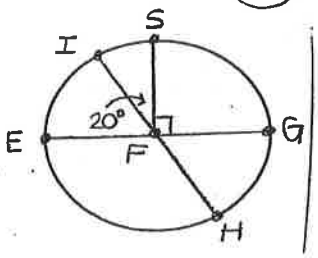
Name:_____

For questions 1-3, use circle D.

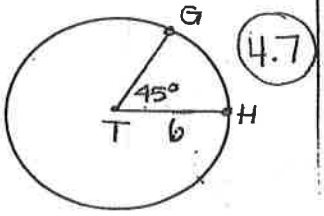


1. Name a radius. $\overline{AD}$ or $\overline{DB}$
2. Name a chord that is not a diameter. $\overline{CB}$
3. Name a tangent. $\overleftrightarrow{CE}$

4. Find $m\overset{\frown}{GH}$. (70°)



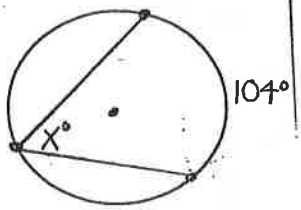
5. Find the length of $\overset{\frown}{GH}$.



(4.7)

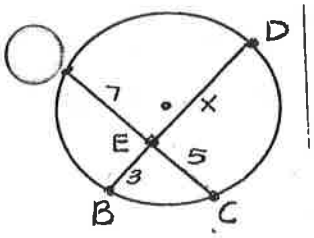
$\frac{45}{360} = \frac{L}{12\pi}$

6. Find x.



(52°)

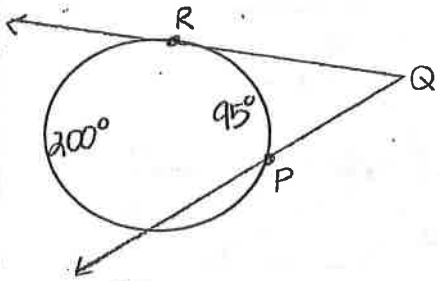
7. Find x.



$35 = 3x$

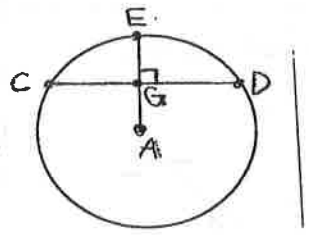
$(x = 11.7)$

8. Find $m\angle PQR$.



(52.5°)

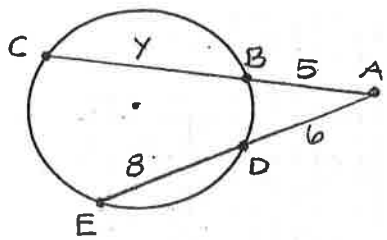
9. If CG = 5x + 2 and GD = 7x – 12, find x.



$5x + 2 = 7x - 12$

$(x = 7)$

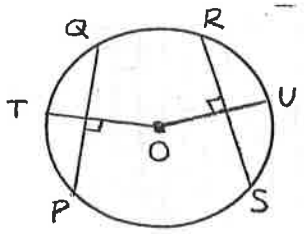
10. Find y.



$5(5 + y) = 6 \cdot 14$

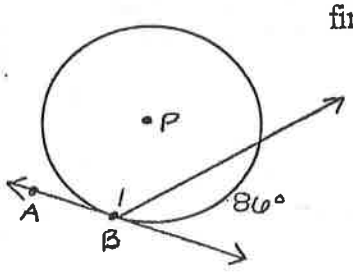
$(y = 11.8)$

11. In circle O, PQ = 20, RS = 20, and $m\overset{\frown}{PT} = 35$. Find $m\overset{\frown}{RU}$.



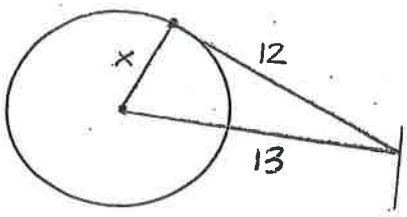
(35°)

12. If $\overleftrightarrow{AB}$ is tangent to circle P at B, find $m\angle 1$.



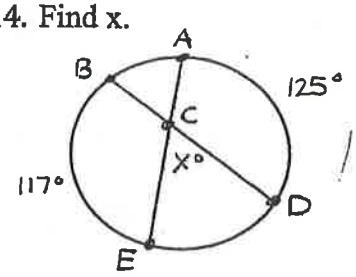
(137°)

13. Find x.



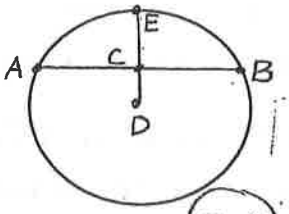
x=5

14. Find x.



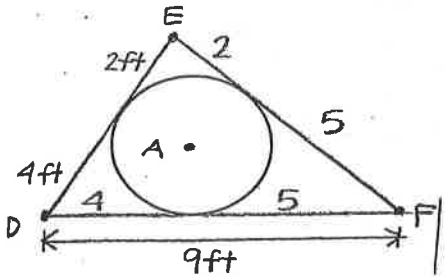
x=59°

15. If DE bisects AB, what is the measure of ∠BCE?



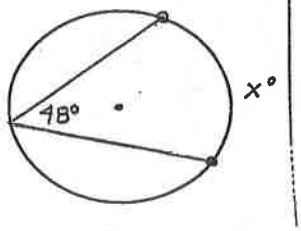
90°

16. If $\overline{DE}$, $\overline{EF}$, and $\overline{FD}$ are tangent to circle A, find $\overline{EF}$.



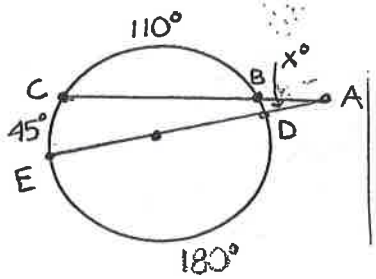
7ft

17. Find x.



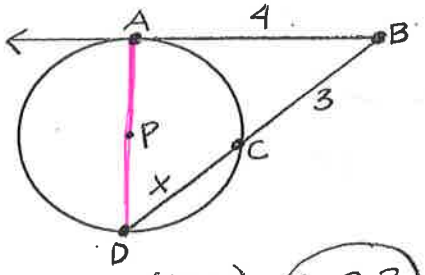
96°

18. Find x.



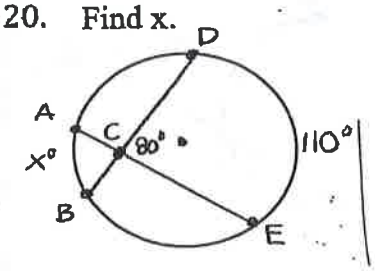
10°

19. Find x if $\overleftrightarrow{AB}$ is tangent to circle P at A.



16=3(3+x) x=2.3

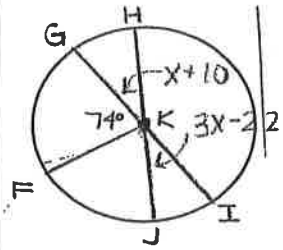
20. Find x.



80=½(x+110)

x=50°

21. In circle K, m∠HKG = x + 10 and m∠IKJ = 3x – 22. Find mFJ.



80°

x+10=3x-22

x=16

22. Identify the center and radius.

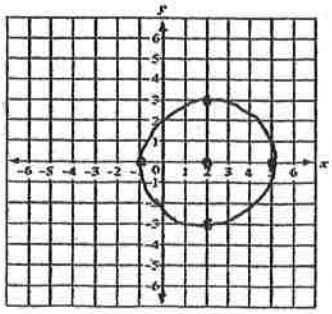
$x^2-10x+y^2+2y=23$

$(x-5)^2+(y+1)^2=49$

(5,-1)

r=7

23. Write the equation of the circle graphed below.



$(x-2)^2+y^2=9$

24. Graph: $x^2 + y^2 = 4$