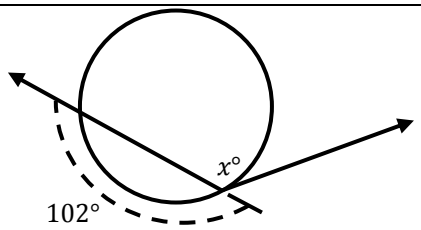
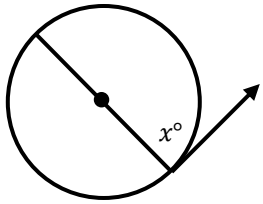
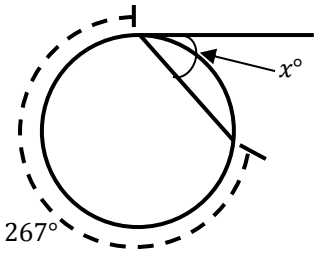
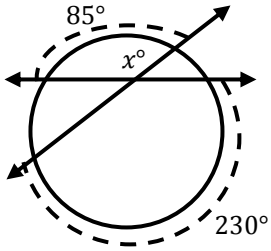
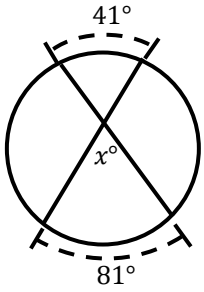
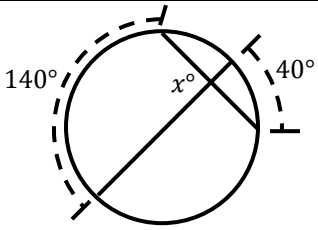
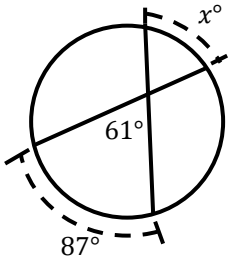
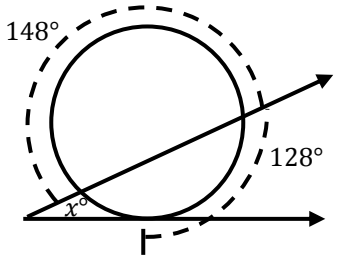
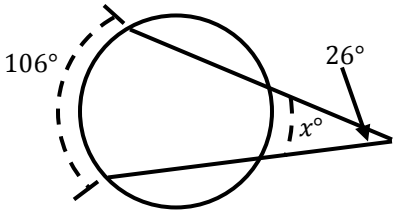
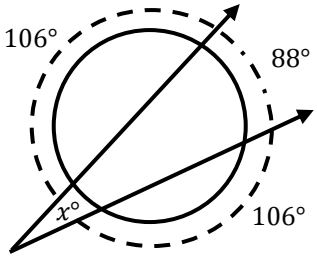
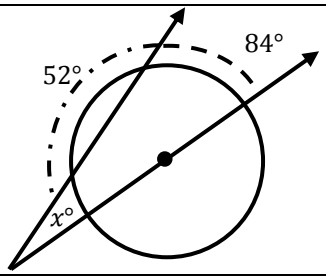
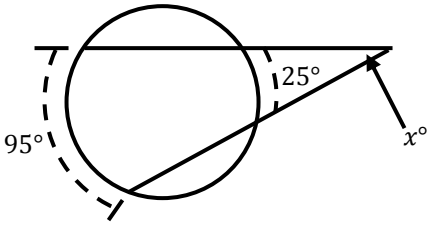
NAME_____**DATE**_____**PER.**_____

10.6a – ANGLES FORMED BY SECANTS & TANGENTS

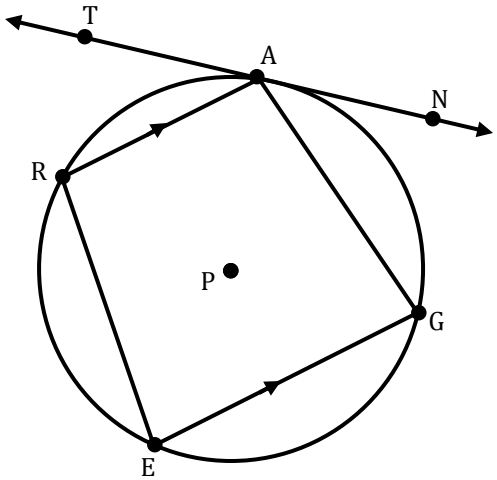
Find the value of 'x'.

1. $x =$ _____	
2. $x =$ _____	
3. $x =$ _____	
4. $x =$ _____	
5. $x =$ _____	
6. $x =$ _____	
7. $x =$ _____	

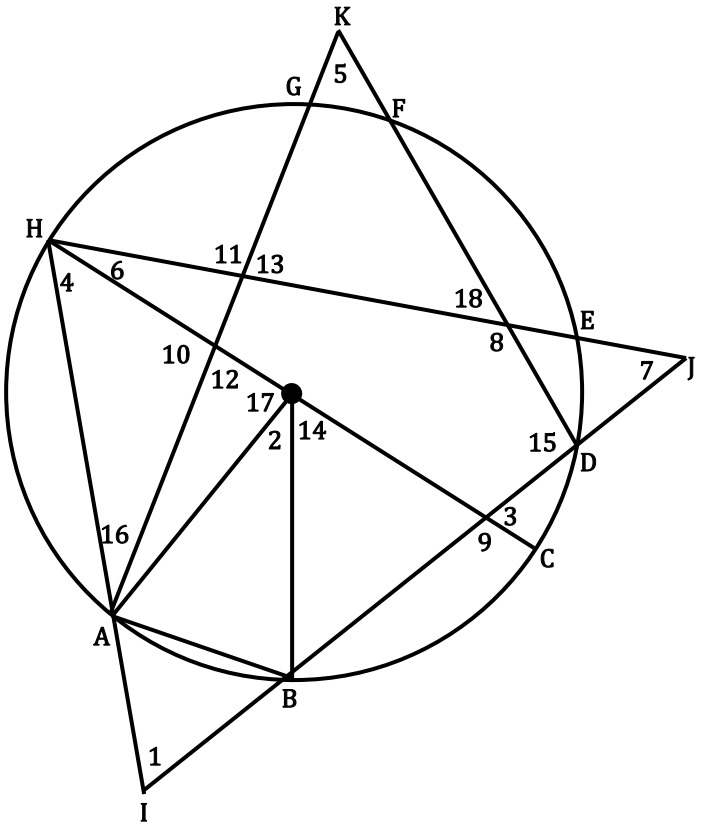
8. $x =$ _____	
9. $x =$ _____	
10. $x =$ _____	
11. $x =$ _____	
12. $x =$ _____	

In the figure, *quadrilateral* GERA is inscribed in *circle* P. $\overleftrightarrow{TA}$ is tangent to *circle* P at A, $m\angle REG = 78°$, $m\,\overset{\frown}{AR} = 46°$, and $\overline{ER} \cong \overline{GA}$. Find each measure.

13. _____	$m\angle GAR = ?$
14. _____	$m\angle TAR = ?$
15. _____	$m\,\overset{\frown}{GE} = ?$
16. _____	$m\,\overset{\frown}{AG} = ?$
17. _____	$m\angle GAN = ?$
18. _____	$m\,\overset{\frown}{RE} = ?$



$\overline{HC}$ is a diameter. $m\overset{\frown}{HA} = 83°$, $m\overset{\frown}{BC} = 50°$, $m\overset{\frown}{HD} = 135°$, $m\overset{\frown}{GF} = 32°$, $m\overset{\frown}{HG} = 45°$, and $m\overset{\frown}{FE} = 55°$. Find the measures of the following angles.



19. $m\angle 1 =$ _____	20. $m\angle 2 =$ _____	21. $m\angle 3 =$ _____
22. $m\angle 4 =$ _____	23. $m\angle 5 =$ _____	24. $m\angle 6 =$ _____
25. $m\angle 7 =$ _____	26. $m\angle 8 =$ _____	27. $m\angle 9 =$ _____
28. $m\angle 10 =$ _____	29. $m\angle 11 =$ _____	30. $m\angle 12 =$ _____
31. $m\angle 13 =$ _____	32. $m\angle 14 =$ _____	33. $m\angle 15 =$ _____
34. $m\angle 16 =$ _____	35. $m\angle 17 =$ _____	36. $m\angle 18 =$ _____