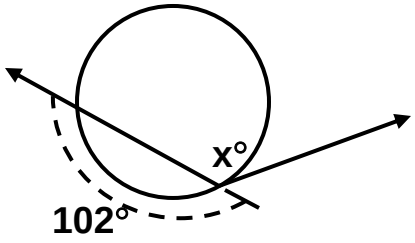
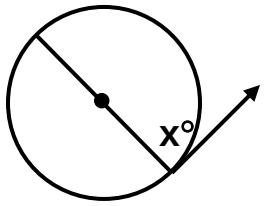
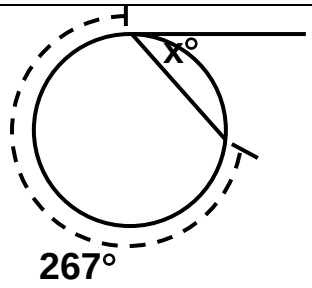
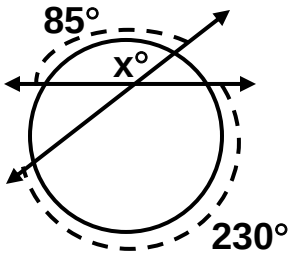
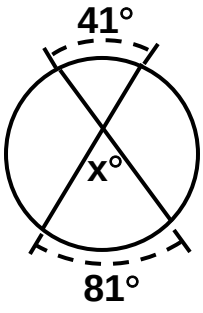
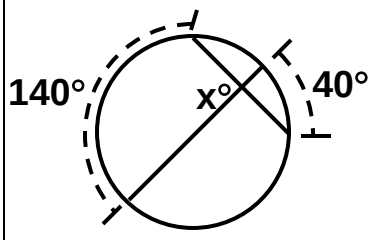
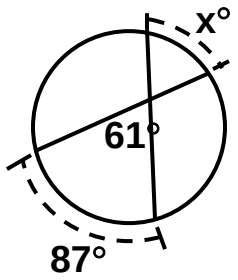
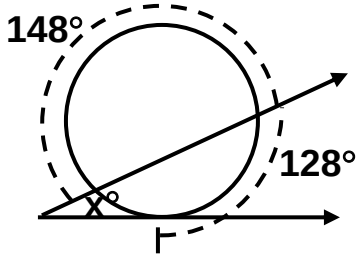
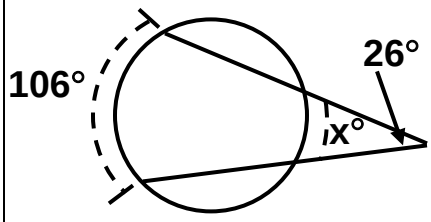
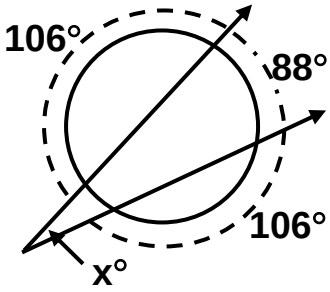
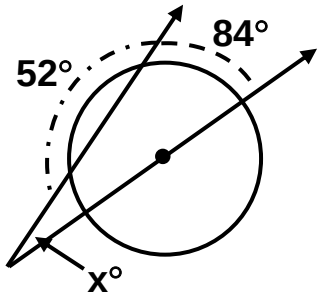
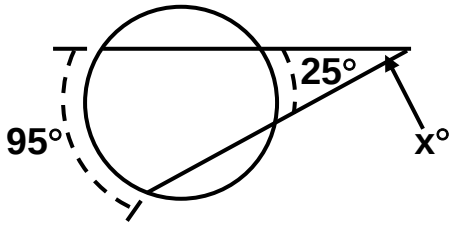
NAME_____**DATE**_____**PER.**____

ANGLES FORMED BY SECANTS & TANGENTS

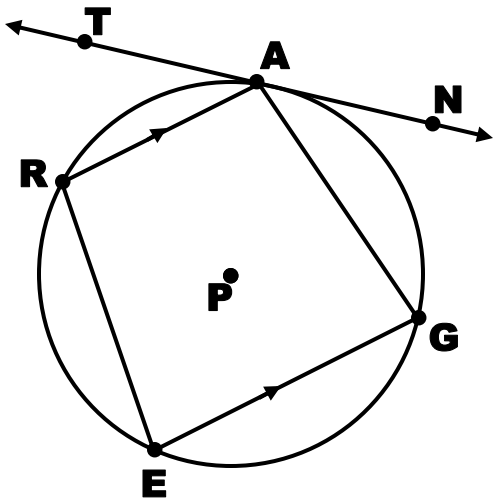
Find the value of 'x'.

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. $\overline{TA}$ is tangent to circle P at A, m∠REG = 78°, m AR = 46°, and $\overline{ER} \cong \overline{GA}$. Find each measure.

13. _____	m∠GAR = ?
14. _____	m∠TAR = ?
15. _____	m∠GAN = ?
16. _____	m $\overset{\frown}{AG}$ = ?



Review

17. _____	P is between J and K. The distance between J and P is 7 more than 3 times the distance between P and K. If JK = 55, what is PK? A. 12 B. 16 C. 24 D. 29
18. _____	The ratio of the measures of two supplementary angles is 8:4. What is the measure of the smaller angle? F. 12° G. 40° H. 60° J. 80°
19. _____	Which is the contrapositive of the statement? If 6 – 3x ≤ 7, then 3x ≥ -1. A. If 6 – 3x > 7, then 3x > -1. B. If 3x < -1, then 6 – 3x > 7. C. If 6 – 3x ≤ -7, then 3x ≥ 1. D. If 3x ≥ 1, then 6 – 3x ≤ -7.
20. _____	Which are the lengths of the sides of an obtuse triangle? F. 8, 11, 15 G. 9, 12, 15 H. 11, 11, 15 J. 10, 12, 15