Name: _____ Date:_____

Circles: Review

1. Combining chords into a polygon creates a _____.

2. A circumscribed _____ is created by linking tangents.

3. A line connecting an outside point to the edge of a circle is a _____.

4. A central angle is made up of 2 (a) tangents, (b) vertices, (c) radii, (d) chords.

5. Complete the proof:
Given: Segment AB intersects circle X at point C.
Prove: $m\angle XCA = m\angle XCB$

1. Segment AB intersects circle X at point C	1. Given
2. XC is the radius of circle X	2. Def of a radius
3. $\angle XCA$ is a right angle	3. _____
4. $m\angle XCA = 90^o$	4. Def of right angle
5. $m\angle XCA = 180^o$	5. Def of Supp $\angle s$
6. $m\angle AB - m\angle XCA = 90^o$	6. Angle Subtraction
7. $m\angle XCB = 90^o$	7. Simplify
8. $m\angle XCB = m\angle XCB$	8. Substitution

6. Provide a brief description of the Inscribed Quadrilateral Theorem.

_____

7-10. Identify the arc length and sector area of the following circles. Then, find the area in radians.

7. r = 10
   m = 30

8. r = 3
   m = 90

9. r = 29
   m = 18

10. r = 19
    m = 120

Name: _____ Date:_____

Answer Key

Circles: Review

1., circumscribed circle
2. polygon
3. tangent
4. c
5. Tangent-Radius theorem
6. If a quadrilateral is inscribed in a circle, then its opposite angles are supplementary
7. L = 5.23; A = 26.17; $\pi/6$
8. L = 4.71; A = 7.07; π
9. L = 9.11; A = 132.04; $\pi/10$
10. L = 39.77; A = 377.85; $2\pi/3$