**NAME**: _____ **PERIOD**: _____ **DATE**: _____

Identify each statement as (T)rue or (F)alse. (2 Points Each)

1. _____ The circumference of a circle is π times its radius squared.

2. _____ If A is (1,-2), B is (-7,5), C is (-4,6), and D is (3,-2), then $\overleftrightarrow{AB} \perp \overleftrightarrow{CD}$.

3. _____ A secant is a segment connecting two points on the circle.

4. _____ The perpendicular bisector of a chord passes through the center of the circle.

5. _____ If ΔRUN is congruent to ΔWLK, then $\overline{RU}$ is congruent to $\overline{LK}$

6. _____ Two circles are congruent if they have the same circumference.

**Complete the following statements. (2 Points Each)**

7. The arc length equals the _____ of the arc divided by $360°$, times the circumference of the circle.

8. The _____ angles of a quadrilateral inscribed in a circle are supplementary.

9. If two secants of a circle are _____, then they cut off congruent arcs.

10. Every angle inscribed in a(n) _____ is a right angle.

11. The measure of a(n) _____ angle is equal to half the measure of its intercepted arc.

12. A tangent to a circle is _____ to the radius drawn to the point of tangency.
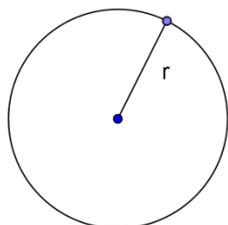
Solve each problem. (5 Points Each)
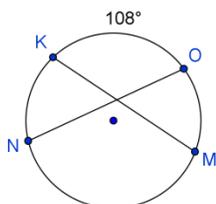
13.
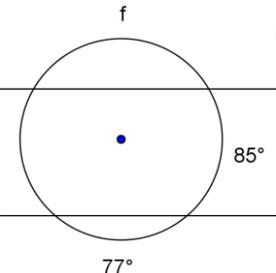
f = _____

15.
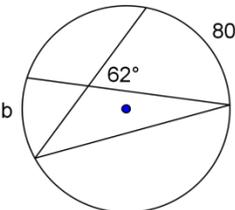
b = _____

14.
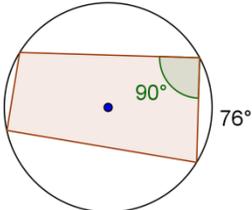
a = _____

16. What is the circumference? _____

17.   r = _____   18.   r = 12cm. Arc Length of KN = _____

Circumference = 18π

108°

K   O

N   M
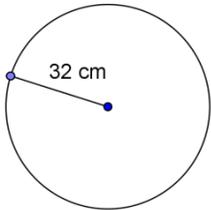
156°
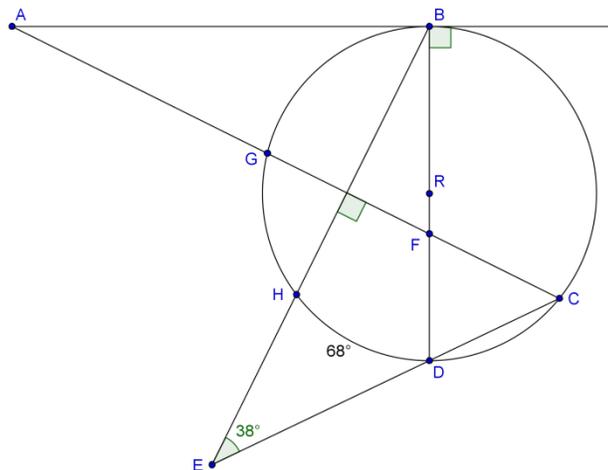Measure of Arc KN equals
the measure of Arc OM.

Use the figure to determine the value. $\overrightarrow{AB}$ is tangent to circle R and $m\widehat{HD} = 68°$. (2 Points Each)

19. $m\angle EBD =$ _____   23. $m\angle DBA =$ _____

20. $m\angle ACE =$ _____   24. $m\widehat{GD} =$ _____

21. $m\widehat{GB} =$ _____   25. $m\angle DFC =$ _____

22. $m\widehat{GBD} =$ _____

68°

38°

Solve the following problems. (5 Points Each)

26.   What is the measure of the angle formed by the hands of a clock at 3:20?

_____

27.   What is the diameter of a circle that has an arc with a measure of $100°$ and an
      arc length of $55\pi\ cm$?

_____

28.   The circumference of a tablecloth is 90 inches. Will it cover the top of a table with
      diameter 30 inches? Explain why.

_____

29.   Find the equation of the line through the points (1,2) and (4,6).

30.   Find the equation of the line throught the point (3,6) with slope $= \frac{2}{3}$.