Geometry R - Mr. Bo Unit 10 - Day 4 HW

Name:
Date:
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$\qquad$

1. Find the perimeter of the triangle.
a.

b.

2. Chords $\overline{A B}$ and $\overline{C D}$ intersect at E .

a. $A E=20, E B=5$, and $C E=10$. Find $E D$.
b. $C E=56, E D=14$, and $A E=E B$. Find $E B$.
3. Secants $\overline{A B C}$ and $\overline{A D E}$ intersect outside the circle.

a. $A D=12, A E=20$, and $A B=8$. Find $A C$.
b. $A B=3, A D=2$, and $D E=10$. Find $A C$.
4. Tangent $\overline{A F}$ and secant $\overline{A B C}$ intersect outside the circle.

a. $A F=6$ and $A C=9$. Find $A B$.
b. $A F=8$ and $C B=12$. Find $A C, A B$, and $B C$.
5. Find the area of each shaded sector in terms of $\boldsymbol{\pi}$ and rounded to the nearest tenth.
a.

b.

c.


## 6. Mixed Review:

a. Find $m \angle A B C, m \overparen{A D B}$
b. Find $m \overparen{M O}, m \overparen{M N}, m \overparen{N O}$

c. Solve for $x$.

d. $m \overparen{A B}: m \overparen{B C}=2: 3$.

Find $m \overparen{B C}$ (in degrees)
Find the length of $\overparen{B C}$ (in feet)


## 7. Complete the Proofs:

a. Given: Parallelogram MCKD
$\overline{K C} \& \overline{K D}$ tangent to circle O
Prove: MCKD is a Rhombus

b. Given: Circle P

Chords $\overline{A D} \& \overline{C E}$ intersect at $B$

Prove: $\triangle C B A \sim \triangle D B E$


