Chapter 8: Circles

Arcs and Chords

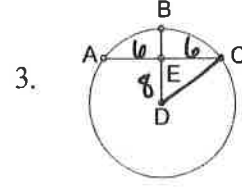**Classwork**

Name _____ *Key* _____

Date _____

Period _____

1.
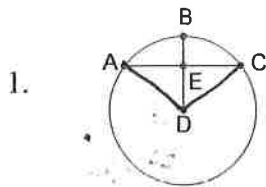
$AC \perp BD$

$m\,\widehat{ABC} = 94°$

Find $\widehat{AB}$ __47__

2.

$AC \perp BD$

$m\,\overline{AE} = 4$

Find $\overline{AC}$ __8__

3.
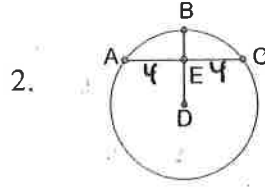
$AC \perp BD$

$m\,\overline{AC} = 12$

$m\,\overline{DE} = 8$

Find the radius __10__

4.
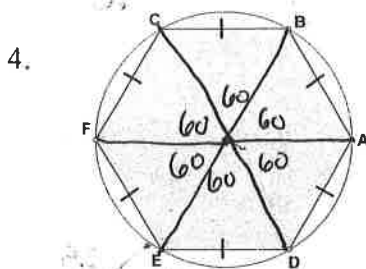
Find $m\widehat{AB}$ __60__

Find $m\widehat{ABF}$ __180__

Find $m\widehat{ABD}$ __300__

5.
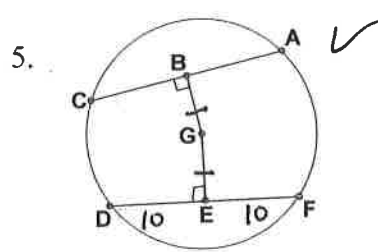
$\overline{GB} \cong \overline{GE}$

$m\,\overline{EF} = 10$

Find $\overline{DF}$ __20__

6.
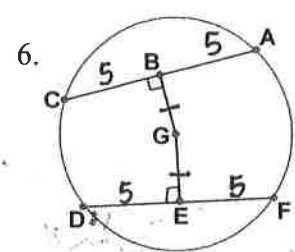
$\overline{GB} \cong \overline{GE}$

$m\,\overline{EF} = 5$

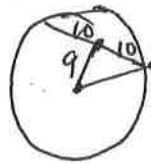Find $m\,\overline{CA}$ = __10__

7.
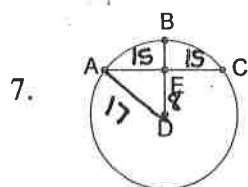
$AC \perp BD$

$DA = 17$

$m\,\overline{ED} = 8$

Find AC __30__

8.
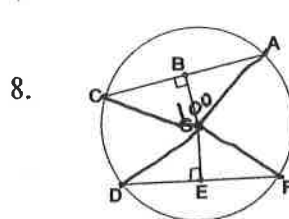
$\overline{AC} \cong \overline{DF}$

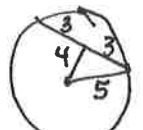$m\widehat{AC} = 100°$

Find $m\widehat{DF}$ __100__

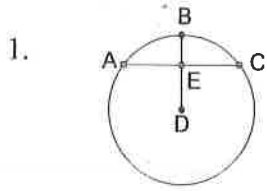9. Suppose a chord is 9 meters from the center of a circle. It is 20 meters long. Find the length of the radius. _____

≈ 13.45

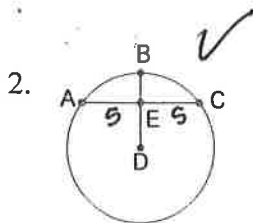10. Find the length of a chord 4 inches from the center of a circle with a radius of 5 inches.

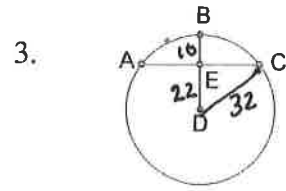_____ 6

Name ___Key___
Date _____
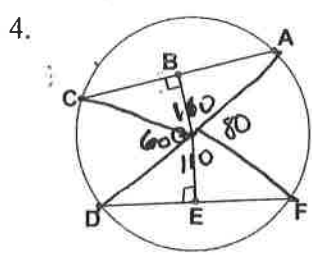Period _____

1.

$\overline{AE} \cong \overline{EC}$

Find $m\angle AEB$ ___90___

2. ✓

$AC \perp BD$
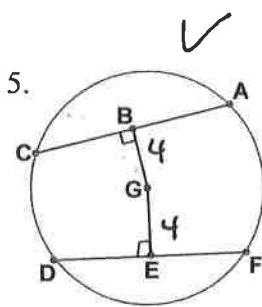$m\overline{AC} = 10$
Find $m\overline{AE}$ ___5___

3.

$AC \perp BD$
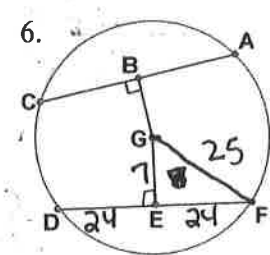$m\overline{ED} = 22$
$DC = 32$
Find $m\overline{EB}$ ___10___

4.

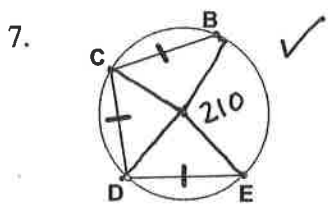$\begin{array}{r} 360 \\ -140 \\ \hline 220 \end{array}$

$\overline{AC} \cong \overline{DF}$
$m\widehat{AF} = 80°$
$m\widehat{CD} = 60°$
Find $m\widehat{AC}$ ___110___

5. ✓

$\overline{AC} \cong \overline{DF}$
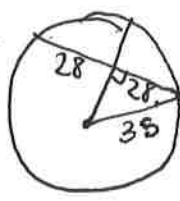$m\overline{BG} = 4$
Find $m\overline{GE}$ ___4___

6.

$m\overline{GE} = 7$
$GF = 25$
Find $m\overline{DF}$ ___48___

7.

$\begin{array}{r} 360 \\ -210 \\ \hline 150 \end{array}$

$m\widehat{BE} = 210°$
Find $m\widehat{CD}$ ___50___

8. Suppose that a circle has a radius of 35 units and a chord is 56 units. Find the distance from the center to the chord.
___21___.

9. Suppose the diameter of a circle is 20 feet long and a non-intersecting chord is 12 feet long. Find the distance between the chord and the center. ___8___