Name: $\qquad$
CC Geometry Homework

## Central Angles and Arcs

1) In the diagram of circle $W$ below, $\overparen{K L F}$ has a measure of $66^{\circ}$.


What is the measure of central $\angle K W F$ ?
2) In the accompanying figure, $\overparen{A B}$ of circle $O$ measures $70^{\circ}$.


If the measure of $\angle A O B$ is represented by $x^{\circ}$, find the value of $x$.

Questions 3 through 6 refer to the following:
In circle $O$ below, $\overline{A B}$ is a diameter and $\mathrm{m} \angle A O C=60^{\circ}$.


Find the value of the following:
3) $\mathrm{m} \overparen{A C}$
4) $\mathrm{m} \angle C O B$
5) $\mathrm{m} \overparen{C B}$
6) $\mathrm{m} \overparen{C A B}$

Questions 7 and 8 refer to the following:

In circle $O$ below, $\overline{A B}$ is a diameter and $\mathrm{m} \angle A O C=100^{\circ}$.


Find the value of the following:
7) $\mathrm{m} \overparen{C B}$
8) $\mathrm{m} \overparen{A D B}$
9) In the accompanying diagram of circle $O, \overparen{A C B}$ has a measure of $280^{\circ}$.


What is the measure of central angle $x$ ? [Show all work.]

Questions 10 through 12 refer to the following:

For the given circle, find the value of $x$. [Show all work.]
10)

11)

12)


1) $66^{\circ}$
2) $70^{\circ}$
3) $60^{\circ}$
4) $120^{\circ}$
5) $120^{\circ}$
6) $240^{\circ}$
7) $80^{\circ}$
8) $180^{\circ}$
9) $80^{\circ}$

WORK SHOWN: $\mathrm{m} \angle x=\mathrm{m} \overparen{A B}, \overparen{A B}=360-\overparen{A C B}=360-280=80$
10) $90^{\circ}$

WORK SHOWN: $360-270=90$
11) $70^{\circ}$
12) $270^{\circ}$

