

Name _____

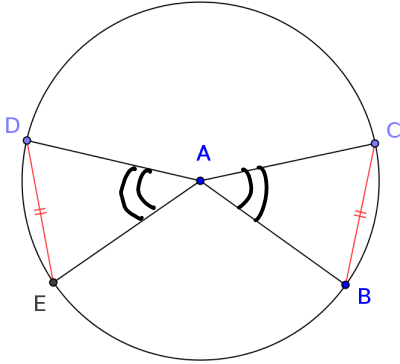
Date _____ Period _____

Geometry 1/2, Mr. Ferraro/Mr. Wong

Circle Chord Conjectures

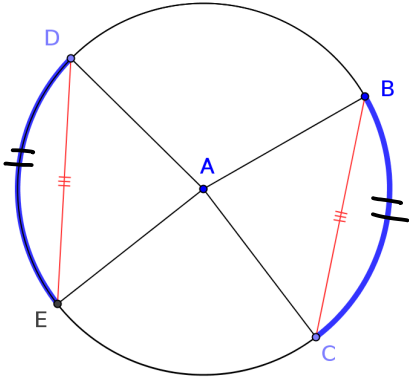
In the space provided, supply the statement for each conjecture and mark figures as necessary.

1. Chord Central \angle s Conjecture:



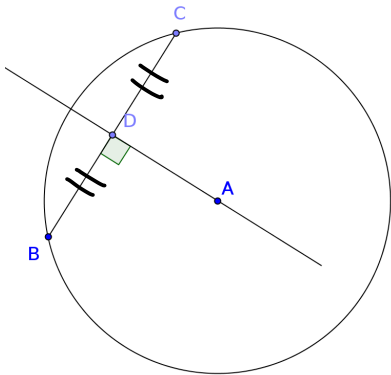
Central \angle 's cutting
 \cong chords are \cong .

2. Chord Arcs Conjecture:



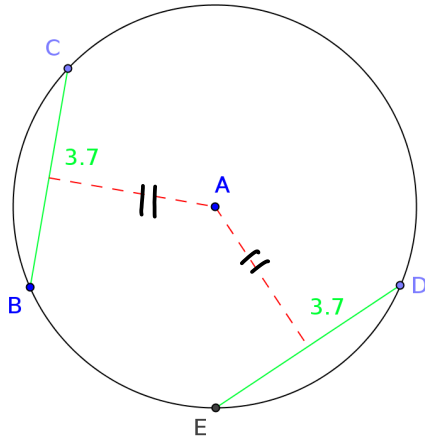
\cong chords cut \cong arcs

3. Perpendicular to a Chord Conjecture:



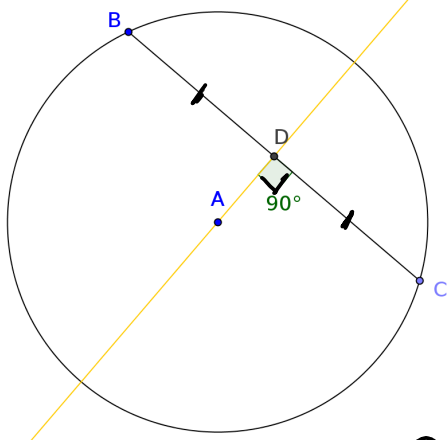
The \perp from the center
of a \odot to a chord bisects
the chord

4. Chord Distance to Center Conjecture:



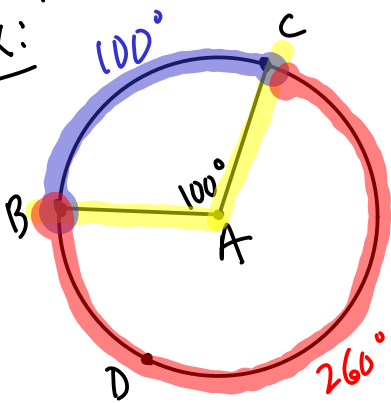
\cong chords in a \odot are equidistant from the center of the \odot .

5. Perpendicular Bisector of a Chord Conjecture:



The \perp bisector of a chord passes through the center of the \odot .

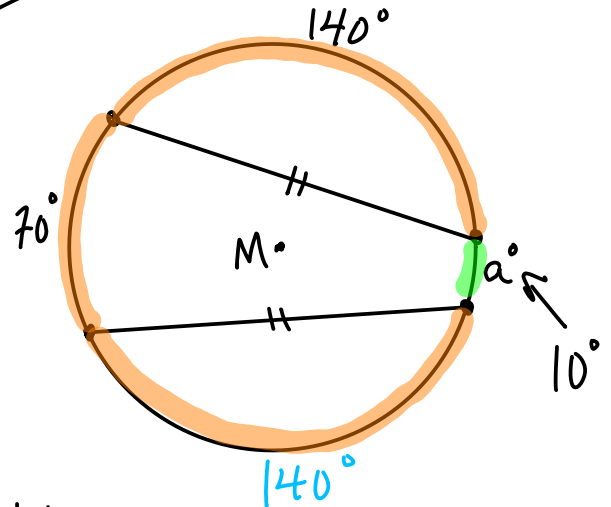
#1
Ex:



$$m \widehat{BC} = 100^\circ$$

$$m \widehat{BDC} = 260^\circ$$

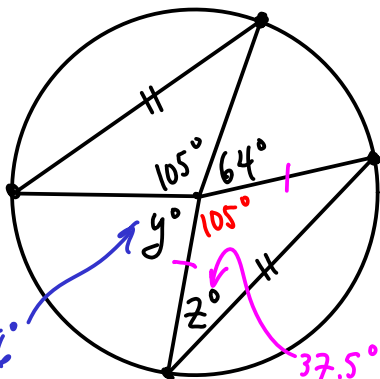
#2
Ex: Find a.



$$\begin{array}{r} 140 \\ 140 \\ + 70 \\ \hline 350^\circ \end{array}$$

#3

Ex: Find y & z:



$$\begin{array}{r} 105 \\ 105 \\ + 64 \\ \hline 274 \end{array}$$

$$\begin{array}{r} 274 \\ \times 2 \\ \hline 548 \\ - 274 \\ \hline 274 \\ \hline 86 \end{array}$$

$$\begin{array}{r} 180 \\ - 105 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 75 \\ \times 105 \\ \hline 375 \\ 750 \\ \hline 7875 \end{array}$$