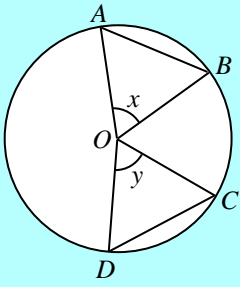
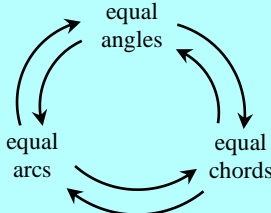


Name: _____ () Class: _____ Date: _____

Lesson Worksheet 10.3A(II+)

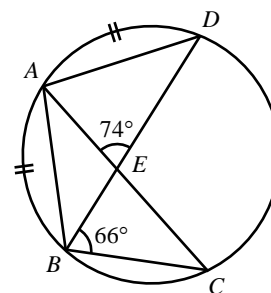
Objective: To solve questions using the property 'equal \angle s, equal arcs and equal chords'.

In this worksheet, unless otherwise stated, the centre of a circle is denoted by O .

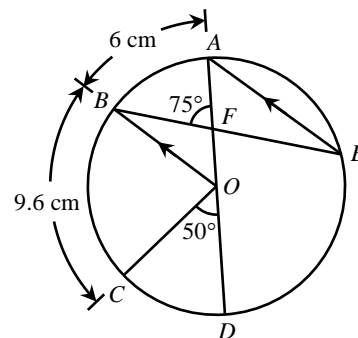
<p>If $x = y$, then $\widehat{AB} = \widehat{CD}$. [Reference: equal \angles, equal arcs]</p> <p>If $\widehat{AB} = \widehat{CD}$, then $x = y$. [Reference: equal arcs, equal \angles]</p> <p>If $AB = CD$, then $\widehat{AB} = \widehat{CD}$. [Reference: equal chords, equal arcs]</p> <p>If $\widehat{AB} = \widehat{CD}$, then $AB = CD$. [Reference: equal arcs, equal chords]</p>	<p>If $x = y$, then $AB = CD$. [Reference: equal \angles, equal chords]</p> <p>If $AB = CD$, then $x = y$. [Reference: equal chords, equal \angles]</p>	
		

1. In the figure, AC and BD intersect at E . $\angle AED = 74^\circ$ and $\angle CBE = 66^\circ$. If $\widehat{AB} = \widehat{AD}$, find $\angle BAE$.

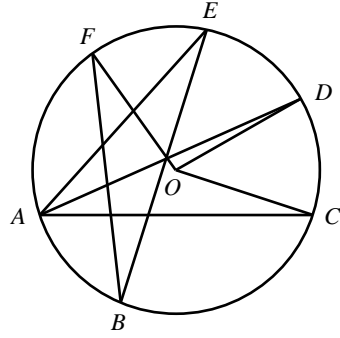
→Exercise 10.3: 16



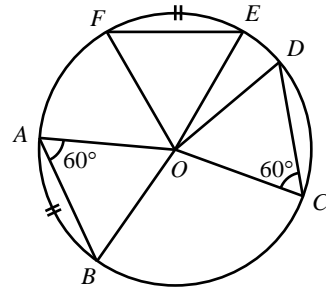
2. In the figure, $AFOD$ and BFE are straight lines. $\angle AFB = 75^\circ$ and $\angle COD = 50^\circ$. $\widehat{AB} = 6$ cm and $\widehat{BC} = 9.6$ cm. If $OB \parallel EA$, find \widehat{BD} .



3. In the figure, $\widehat{CD} = \widehat{EF}$ and $\angle EBF = 24^\circ$.
 (a) Find $\angle CAD$.
 (b) If AD is the angle bisector of $\angle EAC$, find reflex $\angle COF$.



4. In the figure, $\widehat{AB} = \widehat{EF}$ and $\angle OAB = \angle OCD = 60^\circ$. If $EF = 5.4$ cm, find \widehat{CD} .
 (Give the answer correct to 3 significant figures.)



Try More

5. In the figure, ADE and BCE are straight lines. $\widehat{AB} = \widehat{AD}$ and $AD = BC$. If $\angle OCE = 145^\circ$, find $\angle CED$.

