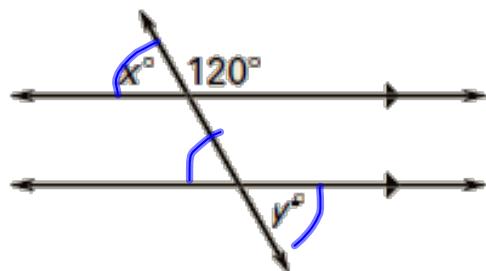


Warm Up

Find the values of x and y .

1.

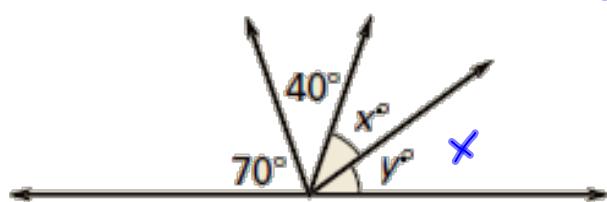


$$x = 60^\circ$$

$$y = 60^\circ$$

$$2x + 110 = 180$$

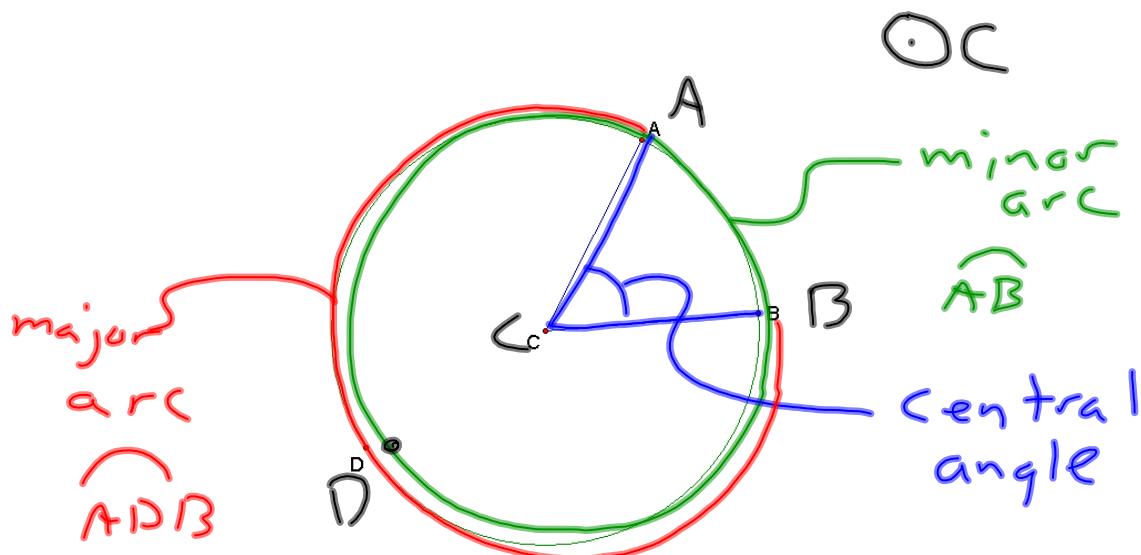
2.



$$2x = 70$$

$$x = 35^\circ = y$$

10-2 ARC MEASURES

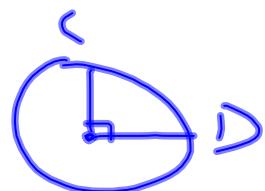
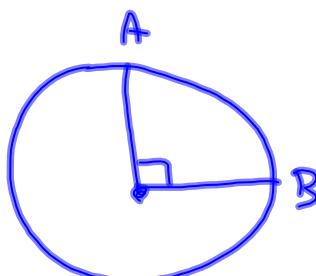


Equal arc measures -

$$m\widehat{AB} = m\widehat{CD}$$

Congruent arcs -

$$\widehat{AB} \not\cong \widehat{CD}$$

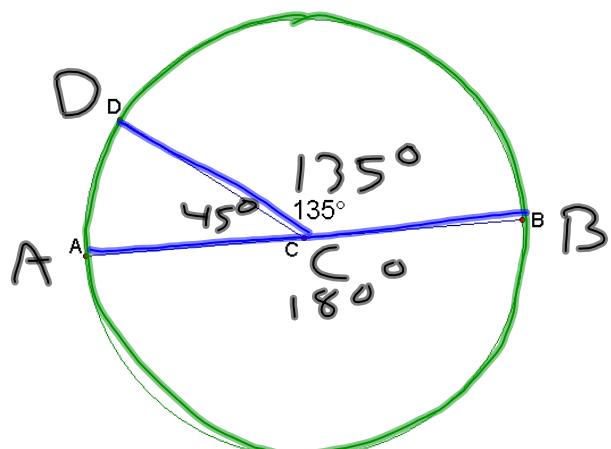


Ex 1 Find the measure of each arc of circle C.

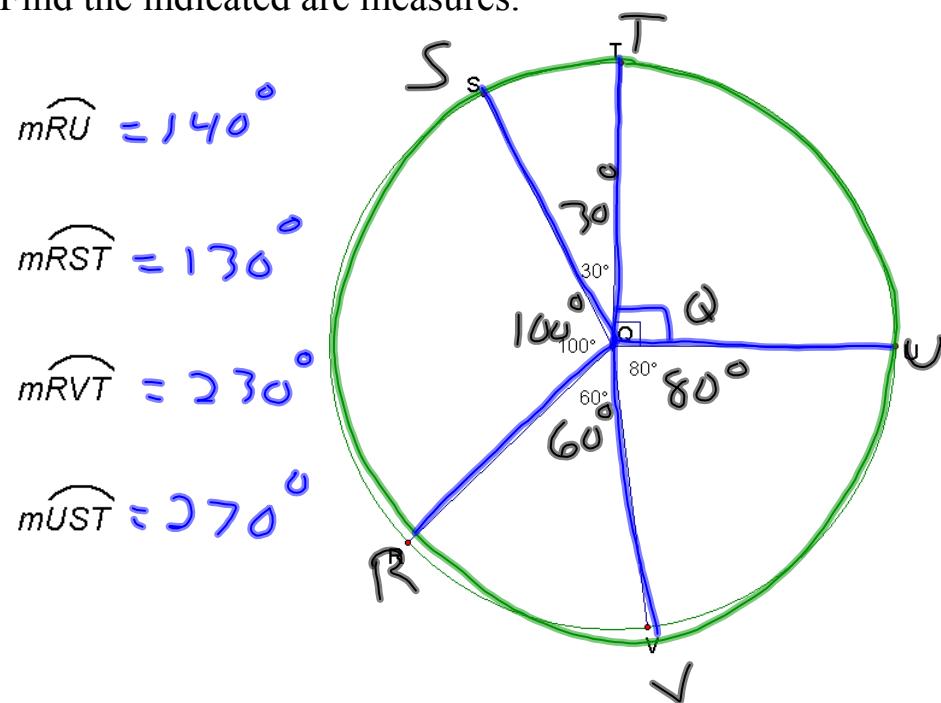
$$m\widehat{DB} = 135^\circ$$

$$m\widehat{DAB} = 225^\circ$$

$$m\widehat{ADB} = 180^\circ$$

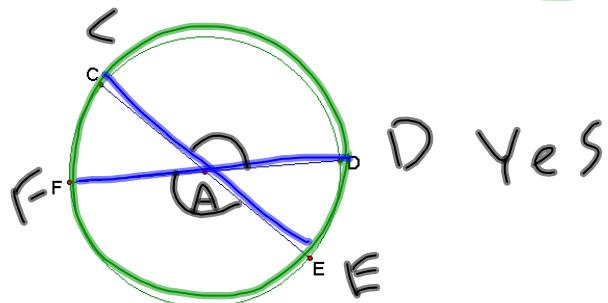
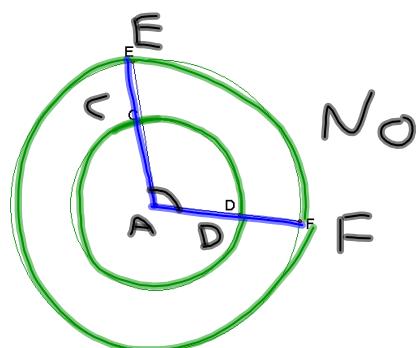
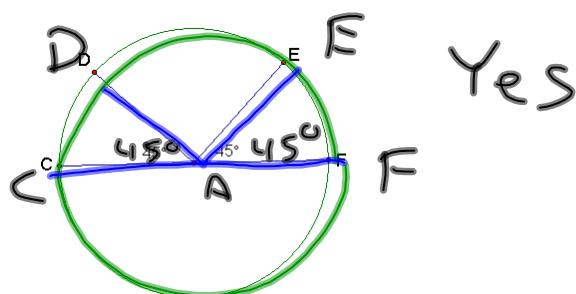


Ex 2 Find the indicated arc measures.

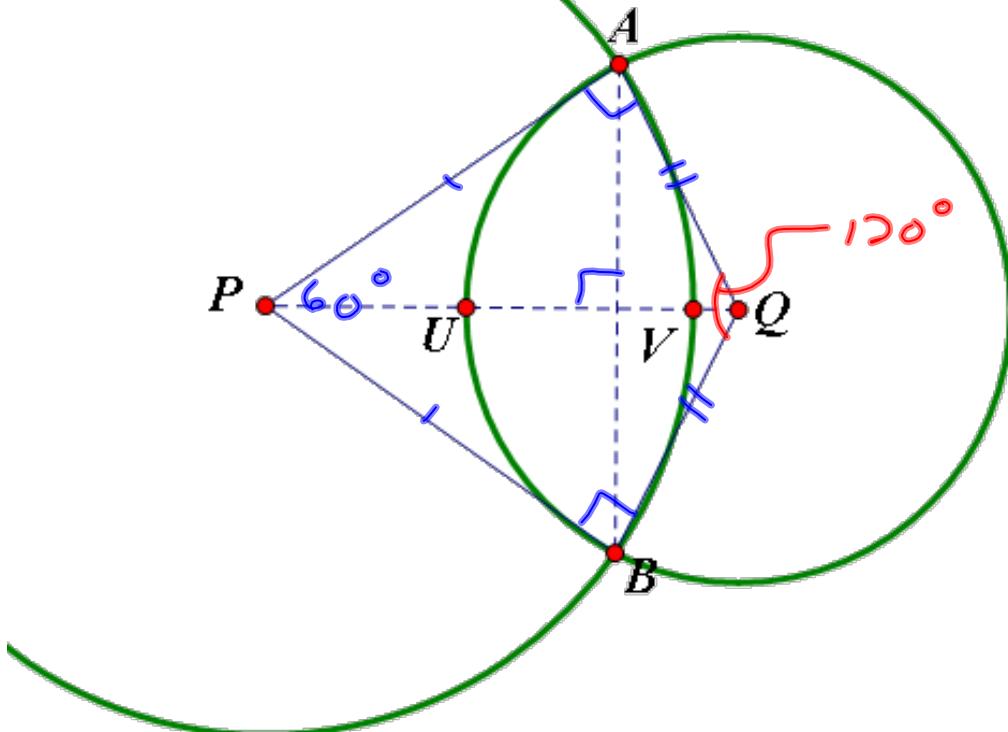


Ex 3 Tell whether arcs \widehat{CD} and \widehat{EF} are congruent. Explain why or why not.

OA



- Ex 4 In the diagram shown, $\overline{PQ} \perp \overline{AB}$, \overline{QA} is tangent to circle P, and $m\widehat{AVB} = 60^\circ$. What is $m\widehat{AUB}$?



- Ex. 5 In the coordinate plane shown, the center of the circle is at the origin. Find the following arc measures.

a. \widehat{AC} 67.4°

b. \widehat{BC} 22.6°

c. \widehat{AB}

44.8° $\tan A = \frac{12}{5}$

$\tan B = \frac{5}{12}$

