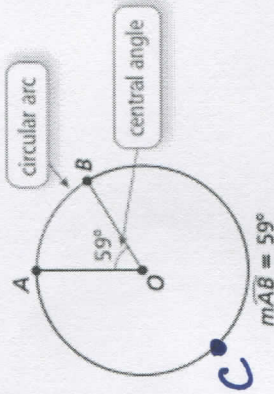


OBJECTIVE 1: Terminology

Notice that *minor arcs* use two CAPITAL letters to name and *Major arcs* and *semicircles* use three CAPITAL letters to name.

TASK 1:

Name a minor arc and a major arc in the diagram below.

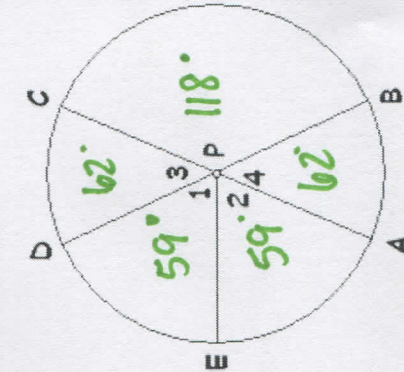


minor = \widehat{AB}
 major = \widehat{ACB}

Arcs and Their Measure

ARC	MEASURE	DIAGRAM
A minor arc is an arc whose points are on or in the interior of a central angle.	The measure of a minor arc is equal to the measure of its central angle. $m\widehat{AC} = m\angle ABC = x^\circ$	
A major arc is an arc whose points are on or in the exterior of a central angle.	The measure of a major arc is equal to 360 degrees minus the measure of its central angle. $m\widehat{ADC} = 360^\circ - m\angle ABC = 360^\circ - x^\circ$	
If the endpoints of an arc lie on a diameter, the arc is a semicircle .	The measure of a semicircle is equal to 180 degrees. $m\widehat{EFG} = 180^\circ$	

TASK 2: In circle P, $m\angle 2 = m\angle 1$, $m\angle 2 = (4x + 35)^\circ$, $m\angle 1 = (9x + 5)^\circ$ with diameters \overline{BD} & \overline{AC} . Find the following:



- a) $m\widehat{ED} = 59^\circ$
- b) $m\angle 3 = 62^\circ$
- c) $m\widehat{EC} = 121^\circ$
 $59 + 62$
- d) $m\angle CPB = 118^\circ$
- e) $m\widehat{CEB} = 242^\circ$
 $360 - 118$
- f) $m\widehat{CEA} = 180^\circ$

$m\angle 3 = 180 - (59 + 59) = 62^\circ$

$9x + 5 = 4x + 35$
 $5x = 30$
 $x = 6$
 $m\angle CPB = 360 - (62 + 59 + 59 + 62)$

TASK 3: Applying the Terms

a) $m\angle FMC = 108^\circ$

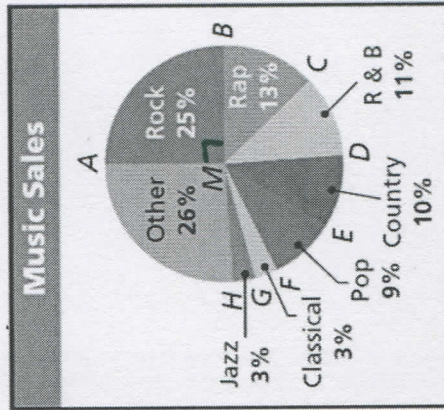
$\frac{30}{100} = \frac{x}{360}$

$100x = 10800$

b) $m\widehat{AHB} = 270^\circ$

$\frac{75}{100} = \frac{x}{360}$

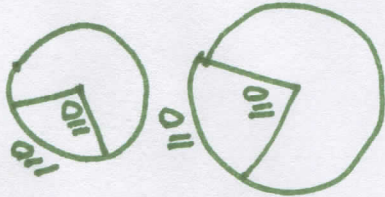
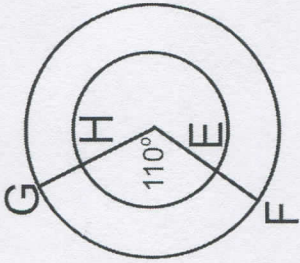
$100x = 27000$



$\% = 0$

TASK 4: Congruent Arcs... Why or Why not?

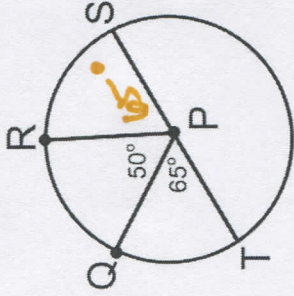
a) Are the arcs \widehat{FG} & \widehat{EH} congruent?



yes. \cong !

Same central $\&$ measure

b) Are arcs \widehat{QT} & \widehat{RS} congruent?



yes \cong !
Share same central
& measure

Mistakes you made while at the boards:

Still need help with: