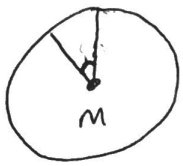
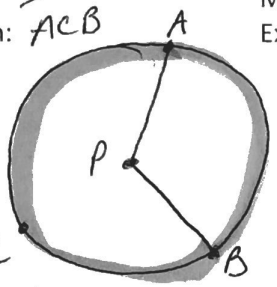
7.2 Central Angles Guided Notes 1/8/19 **Geometry**

Central Angle: An angle whose vertex is at the center of the circle
Example:



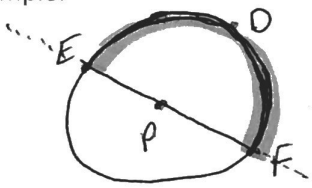
Major Arc: more than 180°
Example:
Symbolic Notation: $\overset{\frown}{ACB}$
to name use 3 letters



Minor Arc: less than 180°
Example:
Symbolic Notation: $\overset{\frown}{AB}$
to name use 2 letters

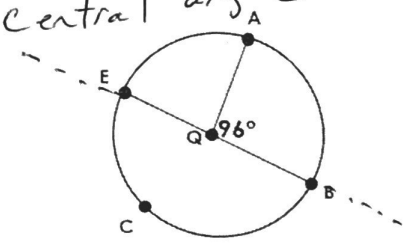
$\angle APB$ is a Central angle

Semicircle: An arc that equals 180°
Example:



Symbolic Notation: $\overset{\frown}{EDF}$
to name use 3 letters

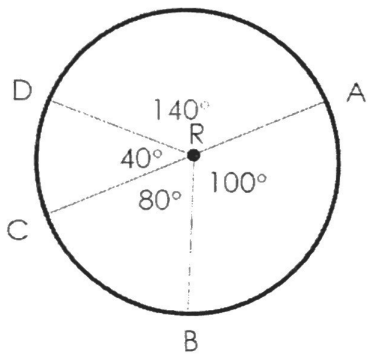
Central Angle Formula: measure Arc = measure central angle
* in degrees
Example:
EB is a diameter.



1) $m\overset{\frown}{AB} = 96°$
2) $m\overset{\frown}{ACB} = 264°$
3) $m\overset{\frown}{AE} = 84°$

Arc Addition Postulate: $m\overset{\frown}{ABC} = m\overset{\frown}{AB} + m\overset{\frown}{BC}$

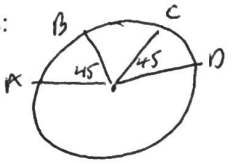
Examples:



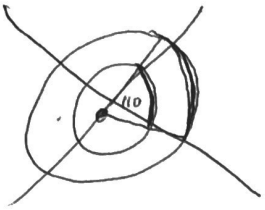
1) $m\overset{\frown}{DAB} = 240°$
2) $m\overset{\frown}{BCA} = 260°$

Congruent Arcs: have the same measure and MUST come from the same circle or ~~of~~ from congruent circles (have the same radii/diameter length)

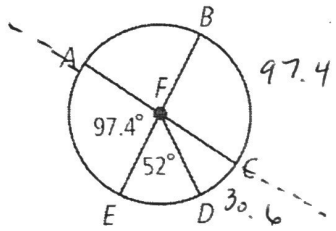
Examples:



✓ ✓



Find m*BD*. AC is a diameter.



128°

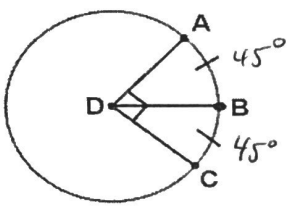
If the length from the center of the clock to the 12 is 4 inches, what is the distance from the 12 to the 3?

$\frac{360}{12} = 30°$ each

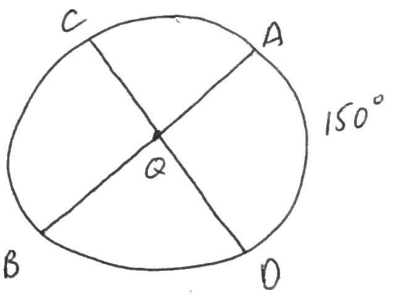
Find m*CAB*.

360 - 45 =

315



Two diameters of Circle Q are $\overline{AB}$ and $\overline{CD}$. If m*AD* = 150°, what is m*AC* ?



30°