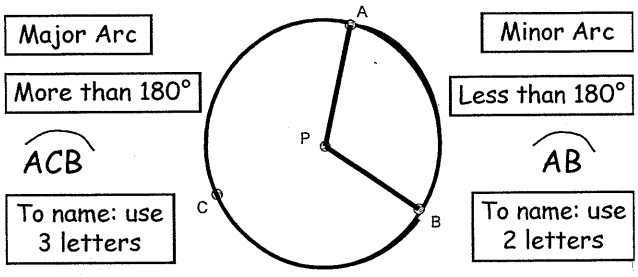
Circles

A circle can be named by its center using the ⊙ symbol. A circle with a center labeled *C* would be named ⊙*C*. An unbroken part of a circle is called an **arc**.

2 Types of arcs:

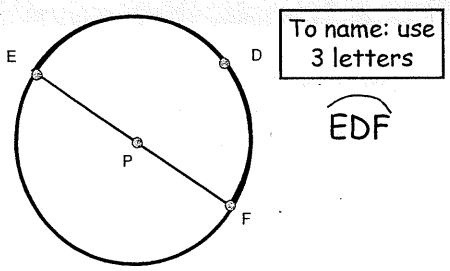
1. A **minor arc** of a circle is an arc that is shorter than half the circle and named by its endpoints.
2. A **major arc** of a circle is an arc that is longer than half the circle and named by its endpoints and one other point on the arc.

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



∠APB is a Central Angle

Semicircle: An Arc that equals 180°

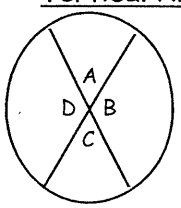


THINGS TO KNOW AND REMEMBER ALWAYS

A <u>circle</u> has 360 degrees

A <u>semicircle</u> has 180 degrees

<u>Vertical Angles are Equal</u>



$\angle A \cong \angle C$

$\angle B \cong \angle D$

measure of an arc = measure of central angle

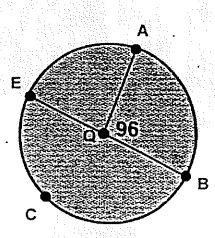
$\angle EQA$ is a central angle.

$\angle EQA$ is ??°

$\overset{\frown}{mAB} =$ _____

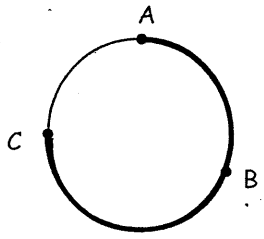
$\overset{\frown}{mACB} =$ _____

$\overset{\frown}{mAE} =$ _____



Arc Addition Postulate

Arc Addition Postulate: The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs.

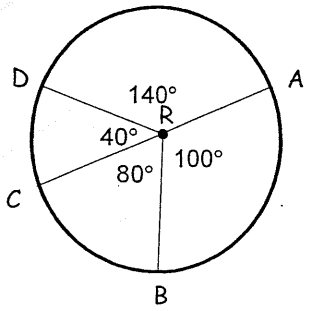


$\overset{\frown}{mABC} = \overset{\frown}{mAB} + \overset{\frown}{mBC}$

Tell me the measure of the following arcs.

$\overset{\frown}{mDAB} =$

$\overset{\frown}{mBCA} =$



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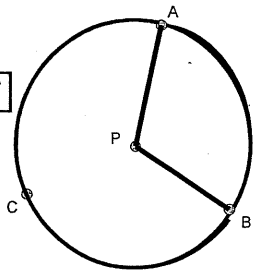
Major Arc

More than 180°

$\overset{\frown}{ACB}$

To name: use 3 letters



Minor Arc

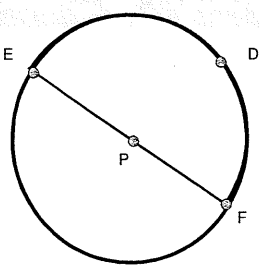
Less than 180°

$\overset{\frown}{AB}$

To name: use 2 letters

∠APB is a Central Angle

Semicircle: An Arc that equals 180°



To name: use 3 letters

$\overset{\frown}{EDF}$

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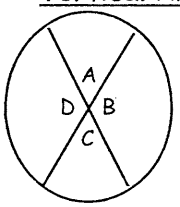
Vertical Angles are Equal



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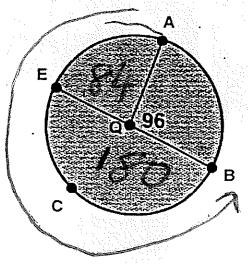

$m\overset{\frown}{AB} = 96°$

$m\overset{\frown}{ACB} = 264°$

$m\overset{\frown}{AE} = 84°$

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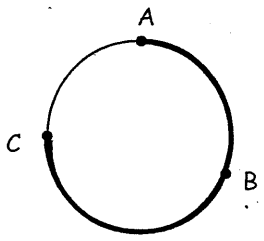
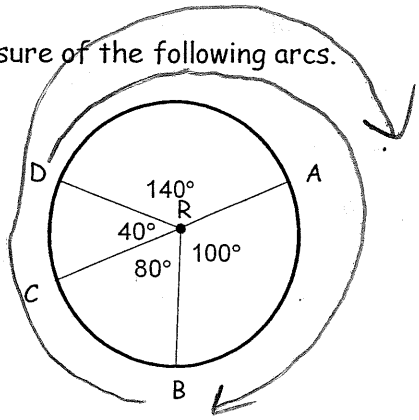


$m\overset{\frown}{ABC} = m\overset{\frown}{AB} + m\overset{\frown}{BC}$

Tell me the measure of the following arcs.

$m\overset{\frown}{DAB} = 240°$

$m\overset{\frown}{BCA} = 260°$