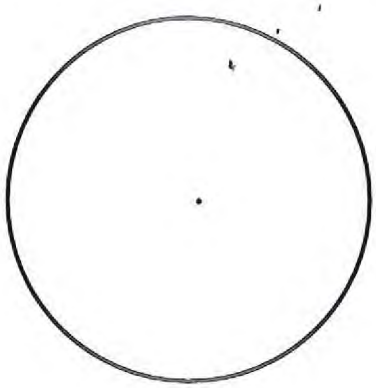
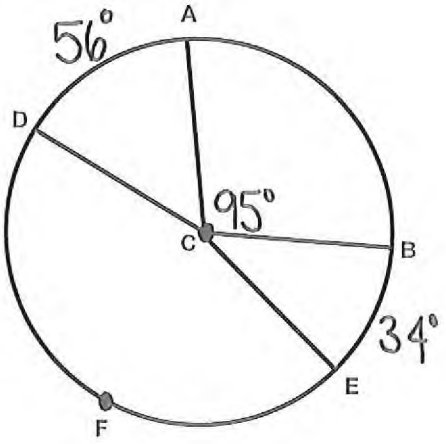
Central Angles Conjecture

The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs and the measure of a minor arc is the measure of its central angle.



Example



A) Find the measure of $\overset{\frown}{AB}$.

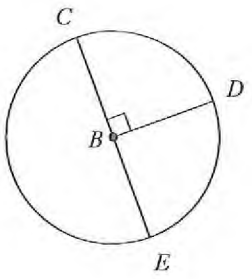
B) Find the measure of angle DCA.

C) Find the measure of $\overset{\frown}{DAB}$.

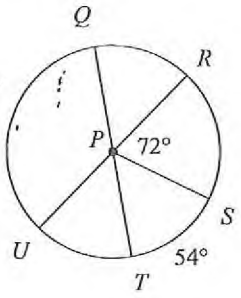
D) Find the measure of $\overset{\frown}{DFE}$.

Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

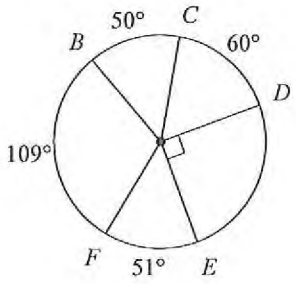
1) $m\angle DBE$



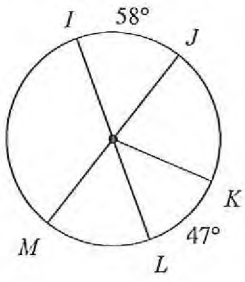
2) $m\angle RPT$



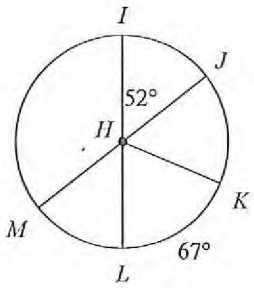
3) $m\widehat{DF}$



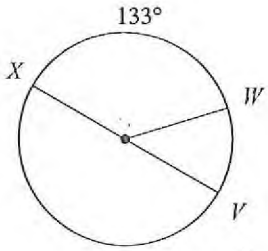
4) $m\widehat{LIK}$



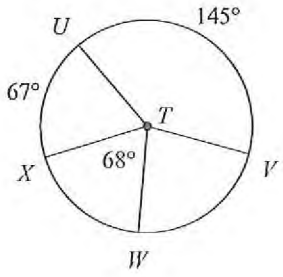
5) $m\angle KHM$



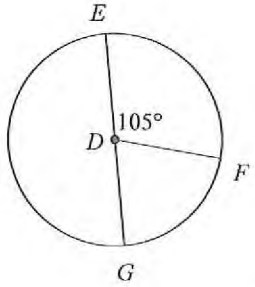
6) $m\widehat{WVX}$



7) $m\angle VTW$

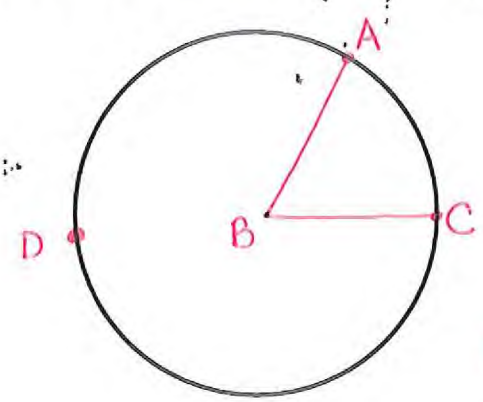


8) $m\angle FDG$



Central Angles Conjecture

The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs and the measure of a minor arc is the measure of its central angle.

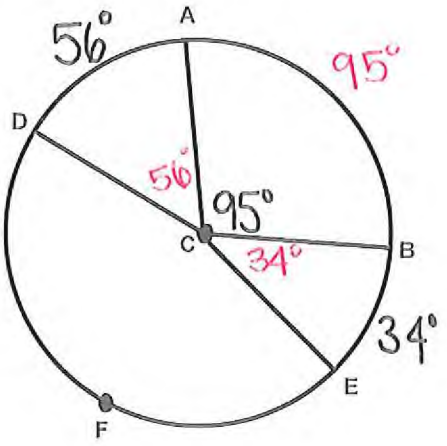


$m\angle ABC = m\overset{\frown}{AC}$

$m\overset{\frown}{DA} + m\overset{\frown}{AC} = m\overset{\frown}{DAC}$

$m\overset{\frown}{DA} + m\overset{\frown}{AC} + m\overset{\frown}{CD} = 360°$

Example



A) Find the measure of $\overset{\frown}{AB}$. 95°

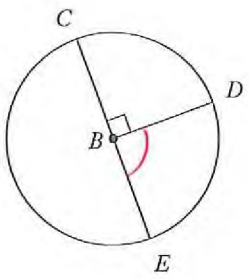
B) Find the measure of angle DCA. 56°

C) Find the measure of $\overset{\frown}{DAB}$. 151°

D) Find the measure of $\overset{\frown}{DFE}$. 175°

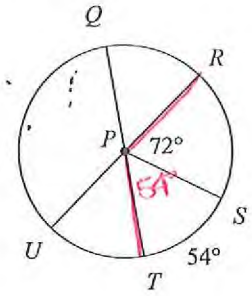
Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

1) $m\angle DBE$



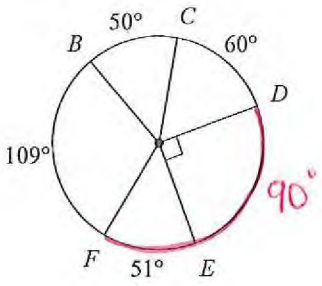
90°

2) $m\angle RPT$



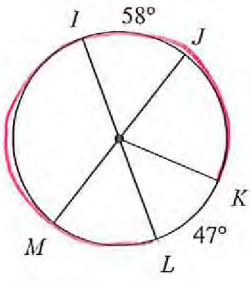
126°

3) $m\widehat{DF}$



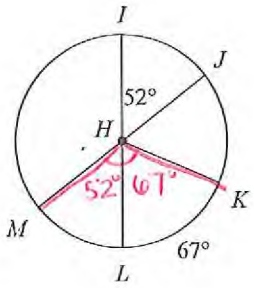
141°

4) $m\widehat{LIK}$



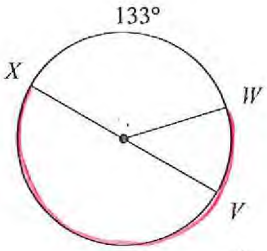
313°

5) $m\angle KHM$



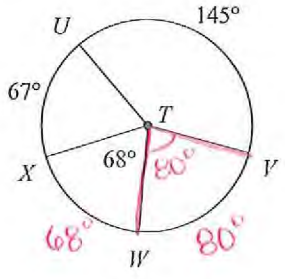
119°

6) $m\widehat{WVX}$



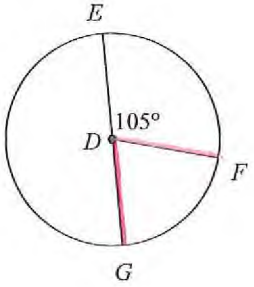
227°

7) $m\angle VTW$



80°

8) $m\angle FDG$



75°