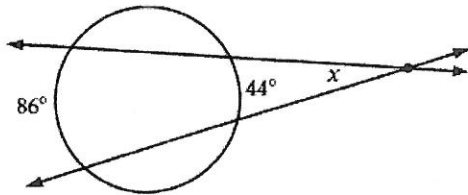
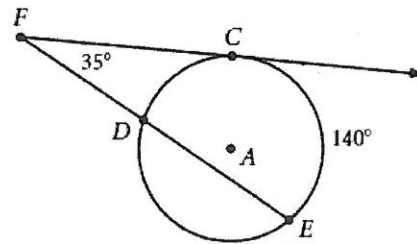


Mixed review:

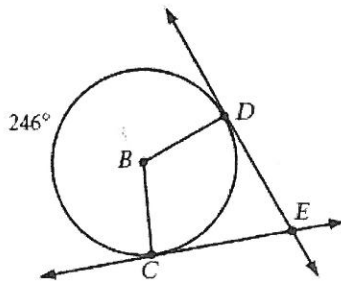
1. $x = \underline{\hspace{2cm}}$



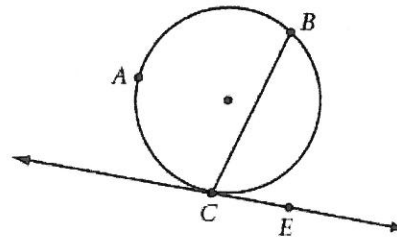
2. \overrightarrow{FC} is tangent to circle A at point C.
 $m\widehat{DC} = \underline{\hspace{2cm}}$, $m\widehat{ED} = \underline{\hspace{2cm}}$



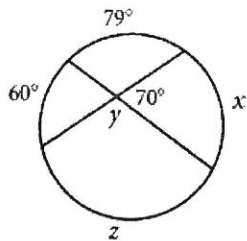
3. \overrightarrow{ED} and \overrightarrow{EC} are tangents.
 $m\widehat{DC} = \underline{\hspace{2cm}}$, $m\angle DEC = \underline{\hspace{2cm}}$



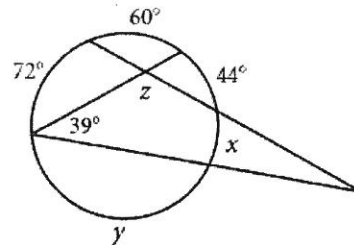
4. \overrightarrow{CE} is a tangent, $m\widehat{BC} = 150^\circ$
 $m\angle BCE = \underline{\hspace{2cm}}$, $m\widehat{BAC} = \underline{\hspace{2cm}}$



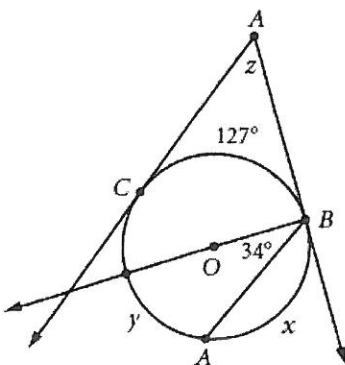
5. $x = \underline{\hspace{2cm}}$, $y = \underline{\hspace{2cm}}$, $z = \underline{\hspace{2cm}}$



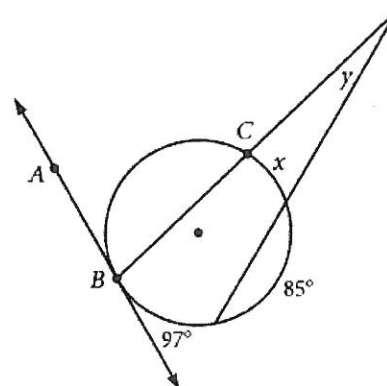
6. $x = \underline{\hspace{2cm}}$, $y = \underline{\hspace{2cm}}$, $z = \underline{\hspace{2cm}}$



7. \overrightarrow{AB} and \overrightarrow{AC} are tangents.
 $x = \underline{\hspace{2cm}}$, $y = \underline{\hspace{2cm}}$, $z = \underline{\hspace{2cm}}$



8. \overrightarrow{AB} is a tangent, $m\angle ABC = 75^\circ$
 $x = \underline{\hspace{2cm}}$, $y = \underline{\hspace{2cm}}$

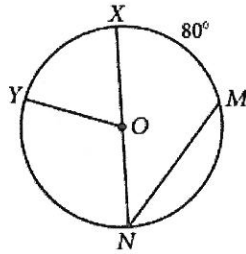


1. $m\widehat{XM} = 80^\circ$

$m\angle XNM = \underline{\hspace{2cm}}$

$m\widehat{XN} = \underline{\hspace{2cm}}$

$m\widehat{MN} = \underline{\hspace{2cm}}$

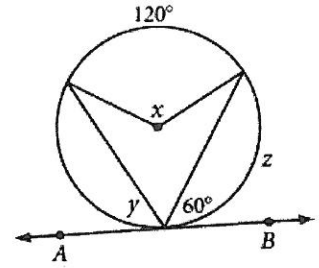


2. \overline{AB} is a tangent.

$x = \underline{\hspace{2cm}}$

$y = \underline{\hspace{2cm}}$

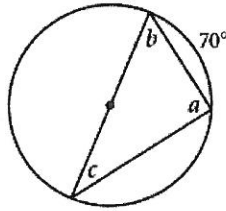
$z = \underline{\hspace{2cm}}$



3. $a = \underline{\hspace{2cm}}$

$b = \underline{\hspace{2cm}}$

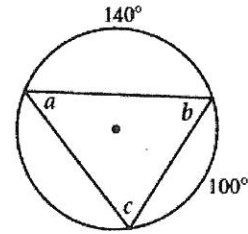
$c = \underline{\hspace{2cm}}$



4. $a = \underline{\hspace{2cm}}$

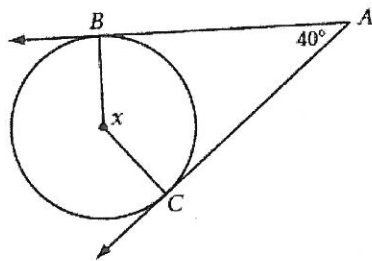
$b = \underline{\hspace{2cm}}$

$c = \underline{\hspace{2cm}}$



5. \overline{AB} and \overline{AC} are tangents.

$x = \underline{\hspace{2cm}}$



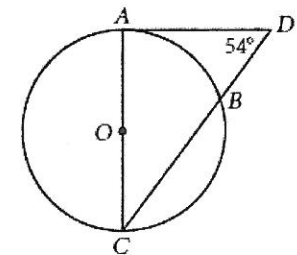
6. \overline{AD} is a tangent. \overline{AC} is a diameter.

$m\angle A = \underline{\hspace{2cm}}$

$m\widehat{AB} = \underline{\hspace{2cm}}$

$m\angle C = \underline{\hspace{2cm}}$

$m\widehat{CB} = \underline{\hspace{2cm}}$

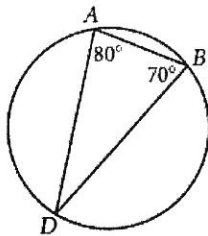


7. $m\widehat{AD} = \underline{\hspace{2cm}}$

$m\angle D = \underline{\hspace{2cm}}$

$m\widehat{AB} = \underline{\hspace{2cm}}$

$m\widehat{DAB} = \underline{\hspace{2cm}}$

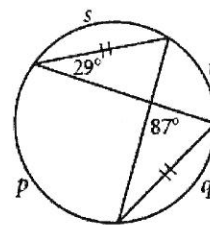


8. $p = \underline{\hspace{2cm}}$

$q = \underline{\hspace{2cm}}$

$r = \underline{\hspace{2cm}}$

$s = \underline{\hspace{2cm}}$



9. Find the lettered angle and arc measures. \overline{AT} and \overline{AZ} are tangents.

$a = \underline{\hspace{2cm}}$

$b = \underline{\hspace{2cm}}$

$c = \underline{\hspace{2cm}}$

$d = \underline{\hspace{2cm}}$

$e = \underline{\hspace{2cm}}$

$f = \underline{\hspace{2cm}}$

$g = \underline{\hspace{2cm}}$

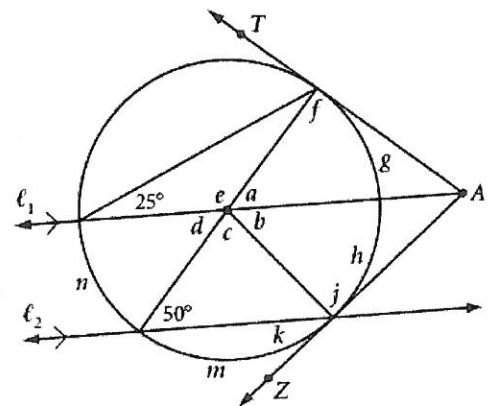
$h = \underline{\hspace{2cm}}$

$j = \underline{\hspace{2cm}}$

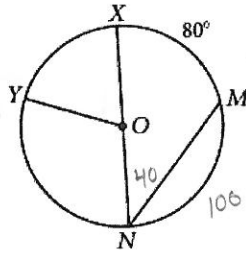
$k = \underline{\hspace{2cm}}$

$m = \underline{\hspace{2cm}}$

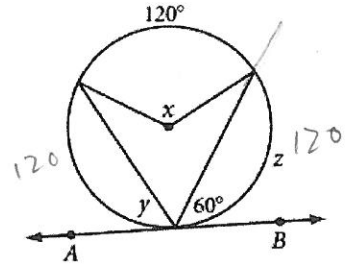
$n = \underline{\hspace{2cm}}$



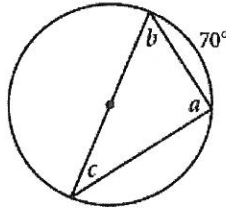
1. $m\widehat{XM} = 80^\circ$
 $m\angle XNM = 40^\circ$
 $m\widehat{XN} = 180^\circ$
 $m\widehat{MN} = 100^\circ$



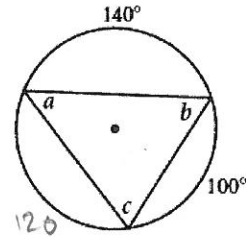
2. \overline{AB} is a tangent.
 $x = 120^\circ$
 $y = 60^\circ$
 $z = 120^\circ$



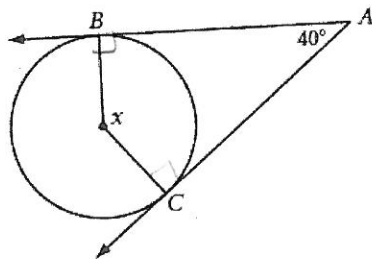
3. $a = 90^\circ$
 $b = 55^\circ$
 $c = 35^\circ$



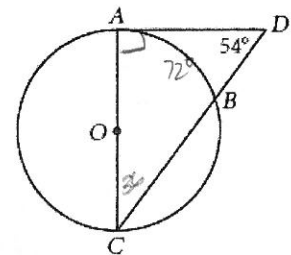
4. $a = 50^\circ$
 $b = 60^\circ$
 $c = 70^\circ$



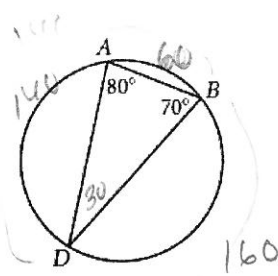
5. \overline{AB} and \overline{AC} are tangents.
 $x = 140^\circ$



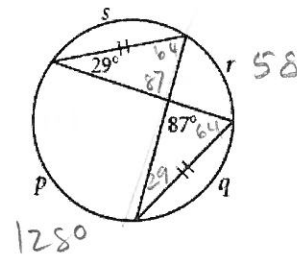
6. \overline{AD} is a tangent. \overline{AC} is a diameter.
 $m\angle A = 90^\circ$
 $m\widehat{AB} = 72^\circ$
 $m\angle C = 36^\circ$
 $m\widehat{CB} = 108^\circ$



7. $m\widehat{AD} = 140^\circ$
 $m\angle D = 30^\circ$
 $m\widehat{AB} = 60^\circ$
 $m\widehat{DAB} = 200^\circ$



8. $p = 128^\circ$
 $q = 87^\circ$
 $r = 58^\circ$
 $s = 87^\circ$



9. Find the lettered angle and arc measures. \overline{AT} and \overline{AZ} are tangents.

$a = 50^\circ$ $b = 50^\circ$ $c = 80^\circ$
 $d = 50^\circ$ $e = 130^\circ$ $f = 90^\circ$
 $g = 50^\circ$ $h = 50^\circ$ $j = 90^\circ$
 $k = 40^\circ$ $m = 80^\circ$ $n = 50^\circ$

