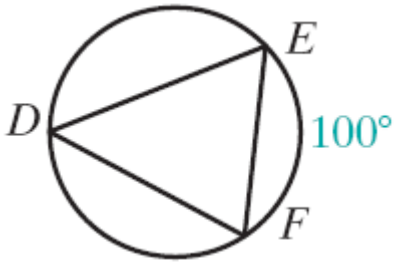
Name: _____

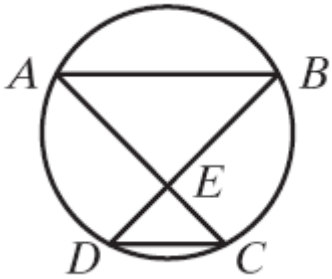
Inscribed Angles and Their Measures

1) Triangle DEF is inscribed in a circle, $\overline{DE} \cong \overline{EF}$ and $mEF = 100$. Find:



   1) $m\angle D$
   2) $m\angle F$
   3) $m\angle E$
   4) mDE
   5) mDF

2) Chords $\overline{AC}$ and $\overline{BD}$ intersect at E in circle O.



   1) If $m\angle B = 42$ and $m\angle AEB = 104$, find:

      i. $m\angle A$
      ii. $m\angle D$
      iii. $m\angle C$
      iv. mBC
      v. mAD

   2) If $\overline{AB} \parallel \overline{DC}$ and $m\angle B = 40$, find:

      i. $m\angle D$
      ii. mAD
      iii. mBC
      iv. $m\angle A$
      v. $m\angle DEC$

   3) If $mAD = 100$, $mAB = 110$, and $mBC = 96$, find:

      i. mDC
      ii. $m\angle A$
      iii. $m\angle B$
      iv. $m\angle AEB$
      v. $m\angle C$

3) Chords $\overline{AC}$ and $\overline{BD}$ of circle O intersect at E. If $\overline{AB} \cong \overline{CD}$, prove that $\triangle ABC \cong \triangle DCB$

4) Prove that a trapezoid inscribed in a circle is isosceles

5) ABCD is a cyclic quadrilateral. Find the angles of the cyclic quadrilateral.