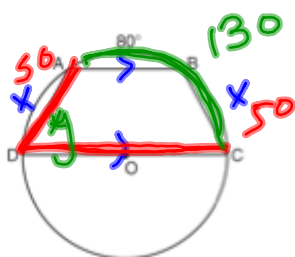


1) In the diagram below, trapezoid $ABCD$, with bases \overline{AB} and \overline{DC} , is inscribed in circle O , with diameter \overline{DC} . If $m\widehat{AB} = 80$, find $m\angle ADC$.



$$\widehat{AD} + \widehat{AB} + \widehat{BC} = 180$$

$$x + 80 + x = 180$$

$$2x + 80 = 180$$

$$2x = 100$$

$$x = 50$$

$$\angle ADC = \frac{1}{2}(\widehat{ABC})$$

$$\angle ADC = \frac{1}{2}(130)$$

$$\angle ADC = 65$$

Parallel
chords
intersect
 \cong arcs

\therefore