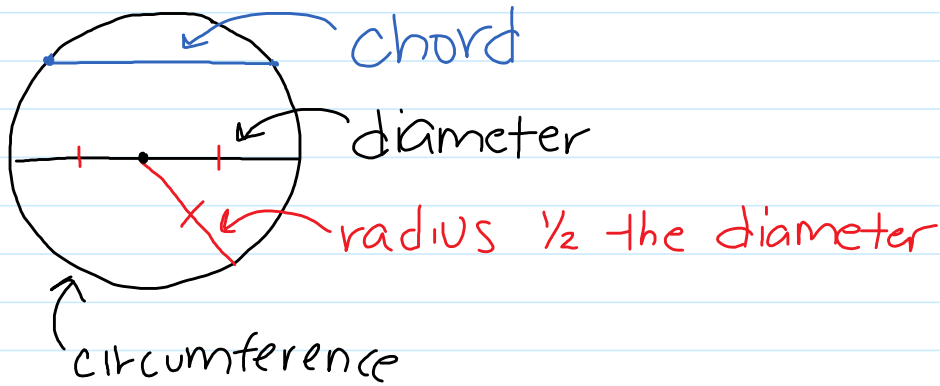
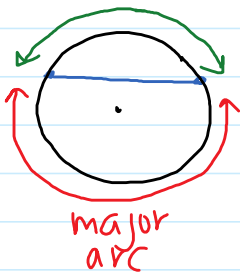


10.1 Exploring Angles in a Circle

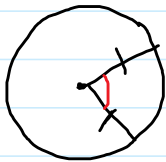
December 9, 2015 2:23 PM



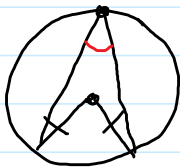
Chord a line that joins 2 points on a circle



A section of the circumference of a circle is an **arc**
 ↳ shorter side \Rightarrow **minor arc**
 ↳ longer side \Rightarrow **major arc**

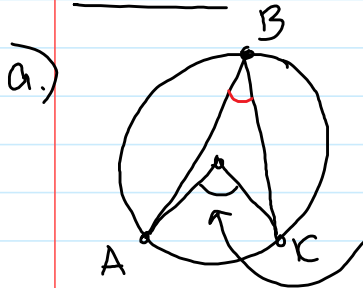


central angle an angle formed by 2 radii of a circle



inscribed angle an angle formed by 2 chords that share a common endpoint

Ex #1



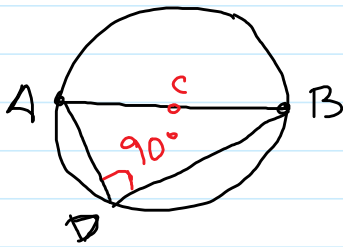
$\angle B$ or $\angle ABC = \frac{42^\circ}{\text{inscribed angle}}$

84° central angle

central angle is twice the measure of an **inscribed angle** subtended from the same arc

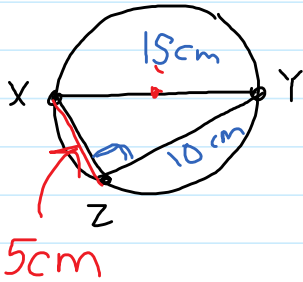
When the inscribed angle is subtended by a diameter of the circle? the inscribed angle

is 90°



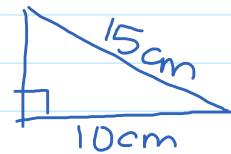
AB is diameter
C is the centre

Ex #2



C is the centre
XY is the diameter = 15cm
Chord ZY is 10cm
Solve for XZ

$$\begin{aligned} a^2 + b^2 &= c^2 \\ a^2 + 10^2 &= 15^2 \\ a^2 &= 125 - 100 \\ &= \sqrt{25} \\ &= 5 \end{aligned}$$



pg 382 # 3-21

