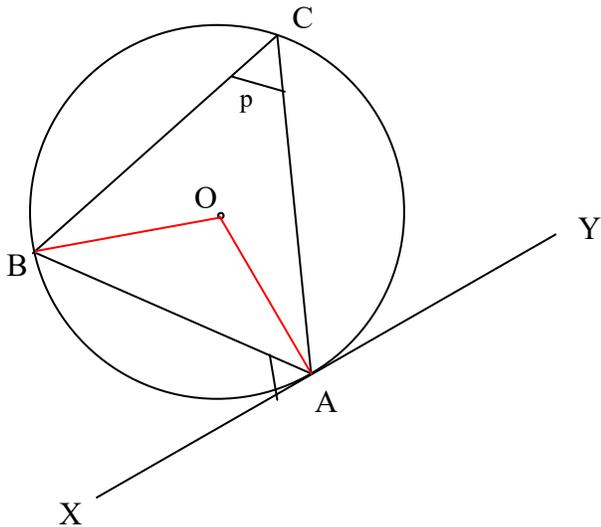


Alternate segment theorem



W.T.S $BCA = BAX$

Let $BCA = p$

Draw the radii from O to A and O to B .

Angle $BOA = 2p$
because **angle at centre = 2 x angle at circumference**

Angle $BAO = (180 - 2p) \div 2$
 $= 90 - p$
because **base angle of an isosceles triangle**

Angle $OAX = 90^\circ$
because **radius meeting a tangent**

Angle $BAX = OAX - BAO$
 $= 90 - (90 - p)$
 $= p$
 $= BCA$

Q.E.D.

