

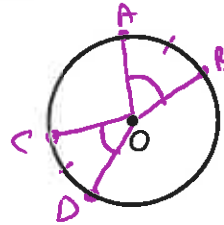
Central & Inscribed Angles

Central Angles

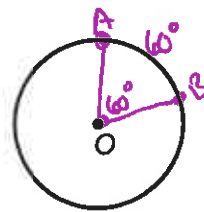
Things to know about \sphericalangle central angles:

– \sphericalangle central \sphericalangle 's cut \sphericalangle arcs.

– measure of central angle
= measure of the arc cut.



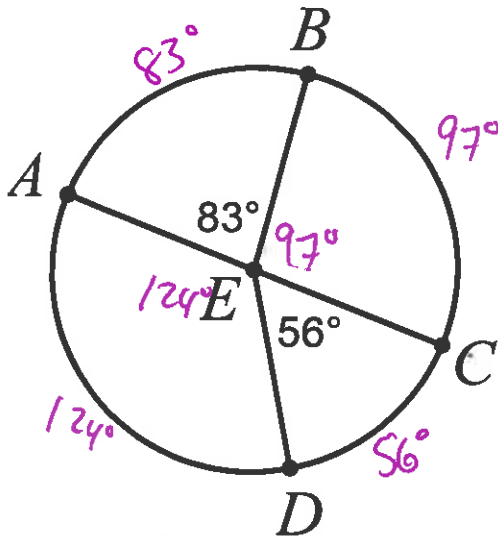
$$\angle AOB \cong \angle COD \\ \Rightarrow \widehat{AB} \cong \widehat{CD}$$



$$m\angle AOB = 60^\circ \\ \Rightarrow m\widehat{AB} = 60^\circ$$

Examples:

1. Circle E with Diameter AC.



Find:

a. $m\angle BEC = 180 - 83 = 97^\circ$

b. $m\angle AED = 180 - 56 = 124^\circ$

c. $m\widehat{AB} = 83^\circ$

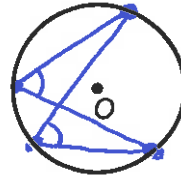
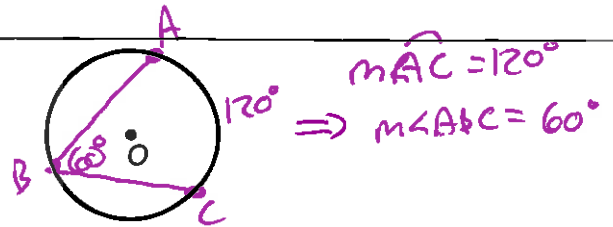
d. $m\widehat{BC} = 97^\circ$

e. $m\widehat{ABD} = 83 + 97 + 56 = 236^\circ$

Inscribed Angles

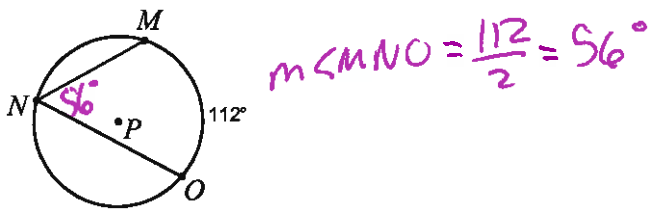
Things to know about inscribed angles:

- measure = $\frac{1}{2}$ the arc cut
- 2 inscribed \angle 's that cut the same arc are \cong
- inscribed in a semicircle is 90°

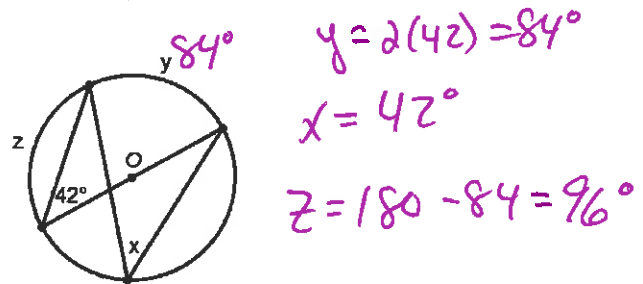


Example:

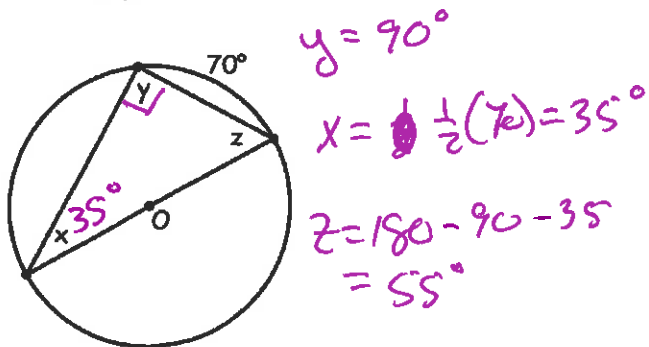
1. Circle P. Find $m\angle MNO$.



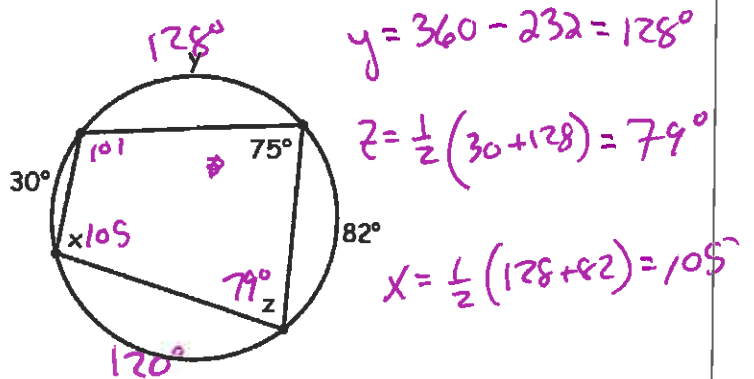
2. Find x , y , and z for circle O.



3. Find x , y , and z for circle O.



4. Find x , y , and z for circle O.



* Opp. \angle 's of inscribed Quad are supp.