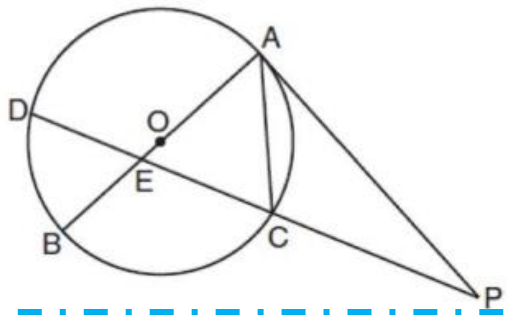
Geometry CC – Mr. Valentino | Name: ____________________
Unit 12 Day 7: Super Circles Day 1 | Date: ______________ Per: ______

Aim: How can we solve "Super Circles?"

Do Now:
In the accompanying diagram, $\overline{PA}$ is tangent to circle O at A, chord $\overline{AC}$ and secant $\overline{PCED}$ are drawn, and chords $\overline{AOB}$ and $\overline{CD}$ intersect at E. If m$\widehat{AD}$ = 130 and m∠BAC = 50 find:



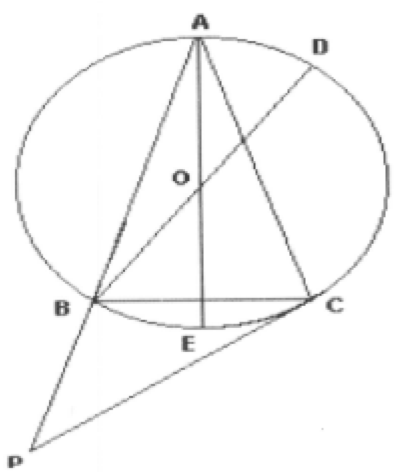
m∠P =

m∠BEC =

m∠PCA =

SUPER CIRCLES – Woah!

1. In the diagram, isosceles triangle ABC is inscribed in circle O, and vertex angle BAC measures 40˚. Tangent $\overline{PC}$, secant $\overline{PBA}$ and diameters $\overline{BD}$ and $\overline{AE}$ are drawn. Find:



a. m$\widehat{BC}$ =

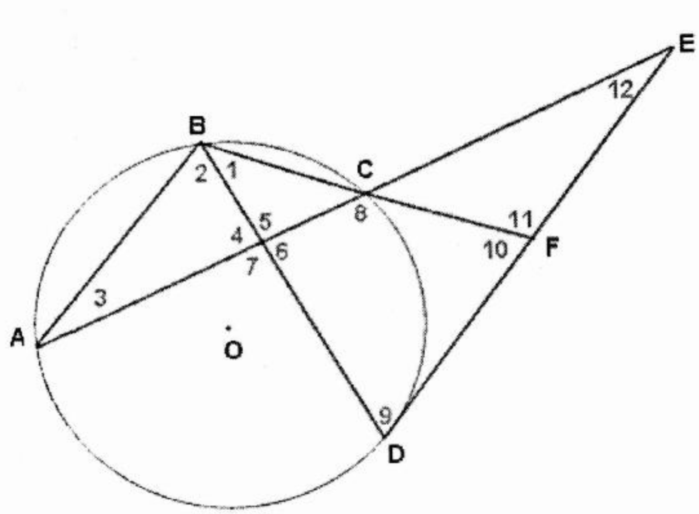
b. m∡ABD =

c. m∡DOE =

d. m∡P =

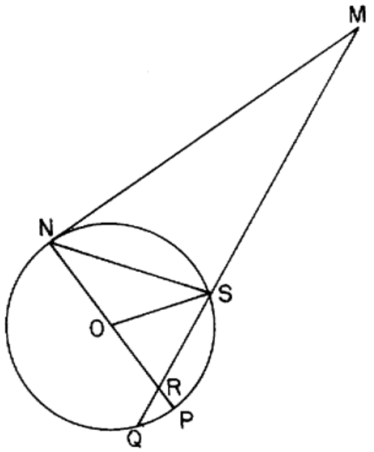
e. m∡ACP

2. Circle O with tangent $\overline{DE}$ and $m\widehat{BC}:m\widehat{CD}:m\widehat{AD}:m\widehat{AB} = 7:8:12:9$
Find all of the numbered angles.



1 =
2 =
3 =
4 =
5 =
6 =
7 =
8 =
9 =
10 =
11 =
12 =

3. In circle O, $\overline{MN}$ is a tangent, $\overline{NP}$ is a diameter, $\overline{MQ}$ is a secant, $\overline{OS}$ is a radius, m$\widehat{QN}$= 160, and m∠PNS=40



m$\widehat{QP}$ =

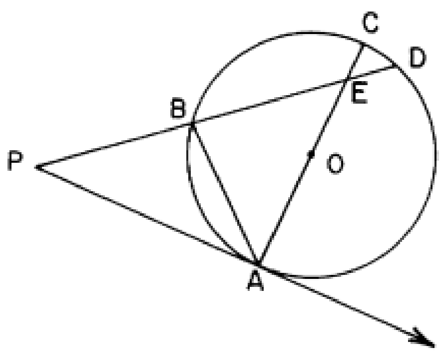
m$\widehat{PS}$ =

m∠QRP =

m∠NOS =

m∠M =

4. In the accompanying diagram, $\overrightarrow{PA}$ is a tangent to circle O at point A, secant $\overline{PBD}$ intersects diameter $\overline{AC}$ at point E, m∠P = 40, and m$\widehat{CD}$:m$\widehat{DA}$ = 1 : 8.



m$\widehat{AD}$ =

m$\widehat{CD}$ =

m<BEA =

m<BAC =

m<PBA =