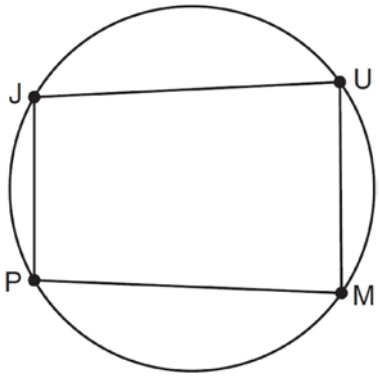
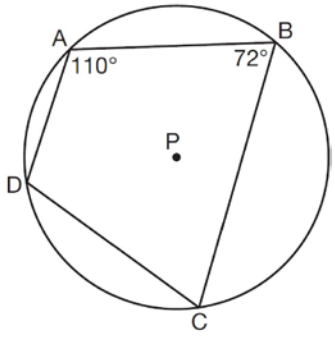
G.C.A.3: Inscribed Quadrilaterals

1 In the diagram below, quadrilateral *JUMP* is inscribed in a circle..



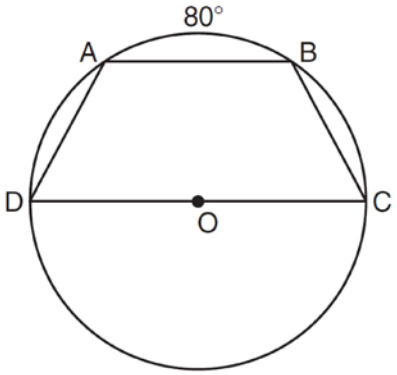
Opposite angles *J* and *M* must be
1) right
2) complementary
3) congruent
4) supplementary

2 In the diagram below, quadrilateral *ABCD* is inscribed in circle *P*.

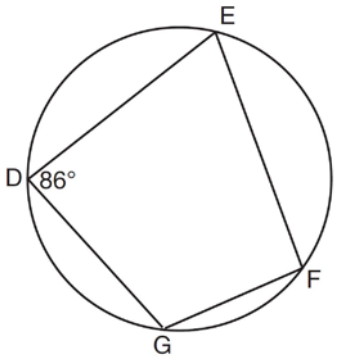


What is m∠*ADC*?
1) 70°
2) 72°
3) 108°
4) 110°

3 In the diagram below, trapezoid *ABCD*, with bases $\overline{AB}$ and $\overline{DC}$, is inscribed in circle *O*, with diameter $\overline{DC}$. If m$\overset{\frown}{AB}$ = 80, find m$\overset{\frown}{BC}$.

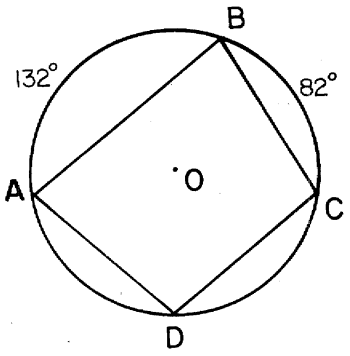


4 As shown in the diagram below, quadrilateral *DEFG* is inscribed in a circle and m∠*D* = 86.



Determine and state m$\overset{\frown}{GFE}$. Determine and state m∠*F*.

5 In the accompanying diagram, quadrilateral $ABCD$ is inscribed in circle O. If $m\overset{\frown}{AB} = 132$ and $m\overset{\frown}{BC} = 82$, find $m\angle ADC$.



G.C.A.3: Inscribed Quadrilaterals
Answer Section

1 ANS: 4 REF: 011124ge

2 ANS: 3 REF: 081515geo

3 ANS:

$$\frac{180-80}{2}=50$$

REF: 081129ge

4 ANS:

$86°\cdot 2=172°\quad 180°-86°=94°$

REF: 081432ge

5 ANS:

107

REF: 088408siii