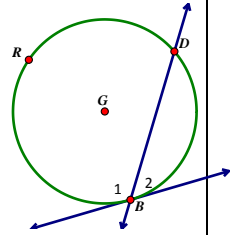


Tangent-Chord Angles: (Another type of angle **ON** a circle)

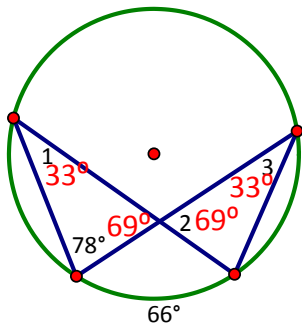
An angle with its vertex **ON** the circle and formed by a tangent and a chord intersecting (ex $\angle 1$ and $\angle 2$)



- \widehat{BRD} is intercepted arc for $\angle 1 \rightarrow m\angle 1 = \frac{1}{2}m\widehat{BRD}$
- \widehat{BD} is intercepted arc for $\angle 2 \rightarrow m\angle 2 = \frac{1}{2}m\widehat{BD}$

1. Determine the requested value(s).

a)



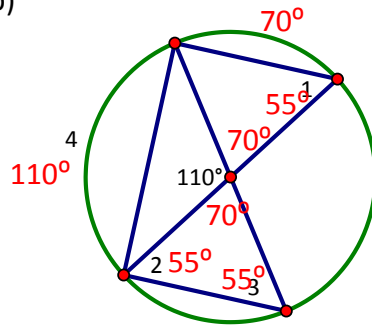
$$m\angle 1 = \underline{33^\circ}$$

$$m\angle 2 = \underline{69^\circ}$$

$$m\angle 3 = \underline{33^\circ}$$

Inscribed angles and Δ s add to 180°

b)

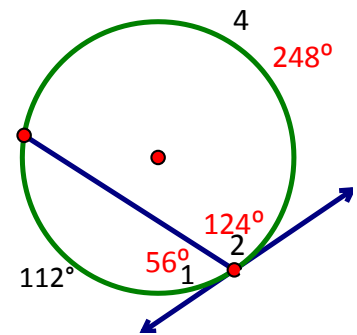


$$m\angle 1 = \underline{55^\circ} \quad m\angle 2 = \underline{55^\circ}$$

$$m\angle 3 = \underline{55^\circ} \quad m\widehat{4} = \underline{110^\circ}$$

Central and inscribed angles

c)



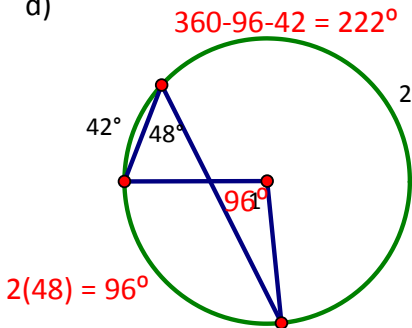
$$m\angle 1 = \underline{56^\circ}$$

$$m\angle 2 = \underline{124^\circ}$$

$$m\widehat{4} = \underline{248^\circ}$$

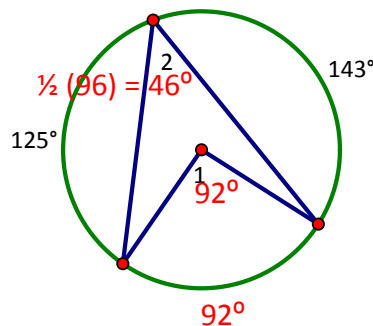
Tangent-chord angles

d)



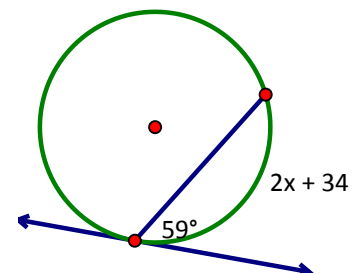
$$m\angle 1 = \underline{96^\circ} \quad m\widehat{2} = \underline{222^\circ}$$

e)



$$m\angle 1 = \underline{92^\circ} \quad m\angle 2 = \underline{46^\circ}$$

f)



$$x = \underline{42^\circ}$$

$$(2)59^\circ = \frac{1}{2}(2x + 34)(2)$$

$$118 = 2x + 34$$

$$x = 42$$