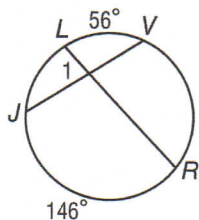


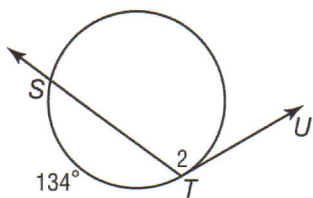
Circles, Lines, and Angles

Find the measure of the arc or angle indicated.

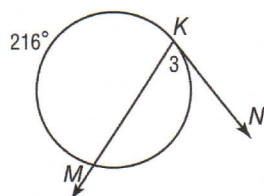
1. $m\angle 1 =$ _____



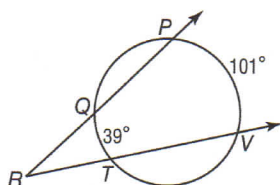
2. $m\angle 2 =$ _____



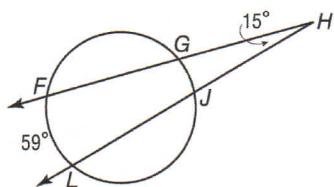
3. $m\angle 3 =$ _____



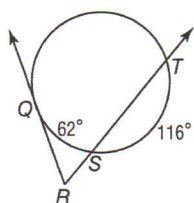
4. $m\angle R =$ _____



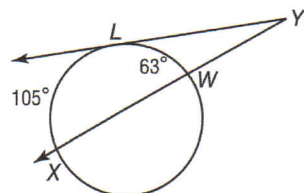
5. $m\widehat{GJ} =$ _____



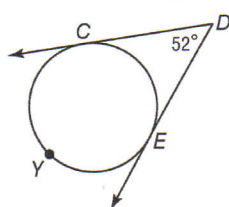
6. $m\angle R =$ _____



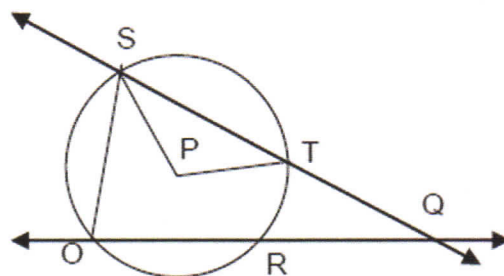
7. $m\angle Y =$ _____



8. $m\widehat{CE} =$ _____



9. Given $m\angle SPT = 120^\circ$, $m\angle TQR = 25^\circ$, and $m\widehat{TR} = 30^\circ$, find the following.



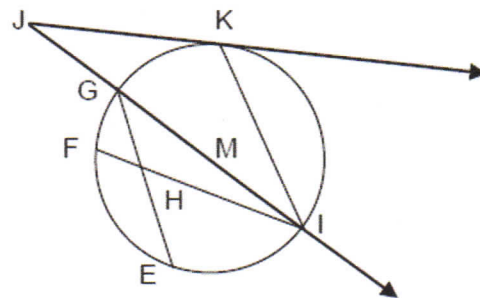
a) $m\widehat{OR} =$ _____

b) $m\widehat{OS} =$ _____

c) $m\widehat{ST} =$ _____

d) $m\angle SOR =$ _____

10. Given $m\widehat{GK} = 50^\circ$, $m\widehat{KI} = 4x - 40$, $m\widehat{IE} = x + 45$, $m\widehat{EF} = x + 25$, and $m\widehat{FG} = x$, find the following.



a) $m\angle J =$ _____

b) $m\angle KIJ =$ _____

c) $m\angle JKI =$ _____

d) $m\angle IHE =$ _____

e) $m\angle GIF =$ _____

e) $m\angle FHE =$ _____