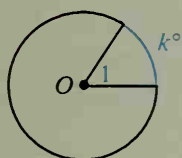
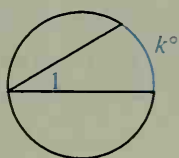


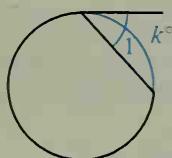
4. In the same circle or in congruent circles:
  - a. Congruent minor arcs have congruent central angles.  
Congruent central angles have congruent arcs.
  - b. Congruent arcs have congruent chords.  
Congruent chords have congruent arcs.
  - c. Chords equally distant from the center are congruent.  
Congruent chords are equally distant from the center.
5. A diameter that is perpendicular to a chord bisects the chord and its arc.
6. If two inscribed angles intercept the same arc, then the angles are congruent.
7. An angle inscribed in a semicircle is a right angle.
8. If a quadrilateral is inscribed in a circle, then its opposite angles are supplementary.
9. Relationships expressed by formulas:



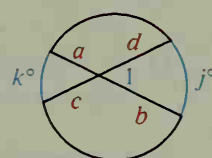
$$m\angle 1 = k$$



$$m\angle 1 = \frac{1}{2}k$$

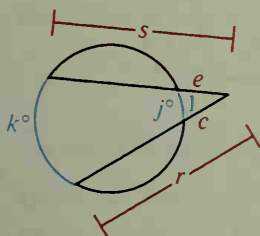


$$m\angle 1 = \frac{1}{2}k$$



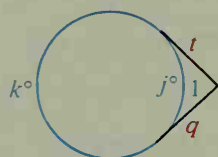
$$m\angle 1 = \frac{1}{2}(k + j)$$

$$a \cdot b = c \cdot d$$



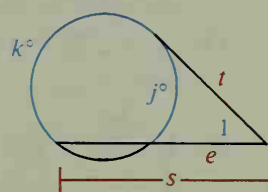
$$m\angle 1 = \frac{1}{2}(k - j)$$

$$s \cdot e = r \cdot c$$



$$m\angle 1 = \frac{1}{2}(k - j)$$

$$t = q$$



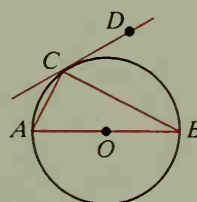
$$m\angle 1 = \frac{1}{2}(k - j)$$

$$s \cdot e = t^2$$

## Chapter Review

Points  $A$ ,  $B$ , and  $C$  lie on  $\odot O$ .

1.  $\overline{AC}$  is called a ?, while  $\overleftrightarrow{AC}$  is called a ?.
2.  $\overline{OB}$  is called a ?.
3. The best name for  $\overline{AB}$  is ?.
4.  $\triangle ABC$  is ?  $\odot O$ .  
(inscribed in/circumscribed about)
5.  $\overleftrightarrow{CD}$  intersects  $\odot O$  in one point.  $\overleftrightarrow{CD}$  is called a ?.



9-1