

- 9-6** In the same circle or in congruent circles,  
 (1) chords equally distant from the center (or centers) are congruent.  
 (2) congruent chords are equally distant from the center (or centers). (p. 345)
- 9-7** The measure of an inscribed angle is equal to half the measure of its intercepted arc. (p. 350)
- Corollary 1** If two inscribed angles intercept the same arc, then the angles are congruent. (p. 351)
- Corollary 2** An angle inscribed in a semicircle is a right angle. (p. 351)
- Corollary 3** If a quadrilateral is inscribed in a circle, then its opposite angles are supplementary. (p. 351)
- 9-8** The measure of an angle formed by a chord and a tangent is equal to half the measure of the intercepted arc. (p. 352)
- 9-9** The measure of an angle formed by two chords that intersect inside a circle is equal to half the sum of the measures of the intercepted arcs. (p. 357)
- 9-10** The measure of an angle formed by two secants, two tangents, or a secant and a tangent drawn from a point outside a circle is equal to half the difference of the measures of the intercepted arcs. (p. 358)
- 9-11** When two chords intersect inside a circle, the product of the segments of one chord equals the product of the segments of the other chord. (p. 362)
- 9-12** When two secant segments are drawn to a circle from an external point, the product of one secant segment and its external segment equals the product of the other secant segment and its external segment. (p. 362)
- 9-13** When a secant segment and a tangent segment are drawn to a circle from an external point, the product of the secant segment and its external segment is equal to the square of the tangent segment. (p. 363)

## Constructions and Loci

- 10-1** The bisectors of the angles of a triangle intersect in a point that is equidistant from the three sides of the triangle. (p. 386)
- 10-2** The perpendicular bisectors of the sides of a triangle intersect in a point that is equidistant from the three vertices of the triangle. (p. 387)
- 10-3** The lines that contain the altitudes of a triangle intersect in a point. (p. 387)
- 10-4** The medians of a triangle intersect in a point that is two thirds of the distance from each vertex to the midpoint of the opposite side. (p. 387)

## Areas of Plane Figures

- 11-1** The area of a rectangle equals the product of its base and height. ( $A = bh$ ) (p. 424)
- 11-2** The area of a parallelogram equals the product of a base and the height to that base. ( $A = bh$ ) (p. 429)
- 11-3** The area of a triangle equals half the product of a base and the height to the base. ( $A = \frac{1}{2}bh$ ) (p. 429)