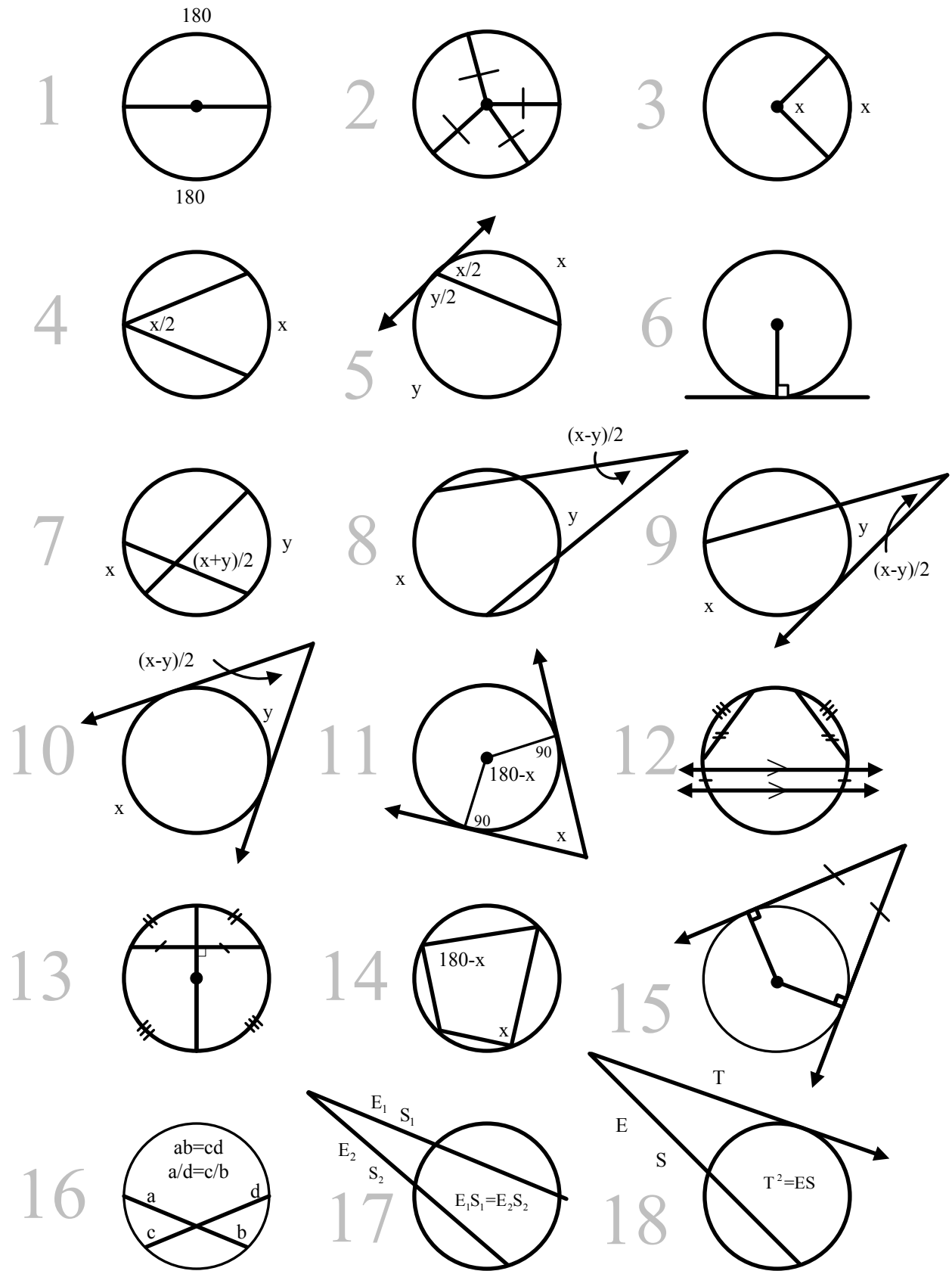


# Chords, Secants & Tangents



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1 The diameter of a circle divides the circle into two equal arcs.

2 All radii are equal in the same circle.

3 The measure of a central angle equals the measure of the intercepted arc.

4 The measure of an inscribed angle equals half the measure of the intercepted arc.

5 The measure of an angle formed by a tangent and a chord equals half the measure of the intercepted arc.

6 A radius drawn to a point of tangency of a tangent is perpendicular to the tangent.

7 The angle formed by the intersection of two chords equals one half the sum of the intercepted arcs.

8 The angle formed by the intersection of two secants equals half the difference of the intercepted arcs.

9 The angle formed by the intersection of a tangent and a secant equals half the difference of the intercepted arcs.

10 The angle formed by the intersection of two tangents equals half the difference of the intercepted arcs.

11 The angle formed by the intersection of two tangents is supplementary to the angle of the two radii drawn to the points of tangency.

12 Equal arcs are created by equal chords and by parallel lines.

13 A diameter perpendicular to a chord will bisect the chord and the intercepted arcs.

14 The opposite angles of a quadrilateral inscribed in a circle are supplementary.

15 Two tangents drawn to a circle from the same point are equal in length.

16 If two chords intersect in a circle, the product of the segment lengths of one chord equals the product of the segment lengths of the other chord.

17 If two secants intersect outside the circle, the product of the lengths of one secant and its external segment equals the product of the lengths of the other secant and its external segment.

18 If a secant and a chord intersect outside a circle, the square of the length of the tangent equals the product of the length of the secant and its external segment.