If two chords intersect, then the measure of any one of the vertical angles they form is equal to half the sum of the measures of the two arcs intercepted by the two vertical angles.

Angle of two secants
If two secants intersect outside a circle, the measure of the acute angle formed is half the difference of the measures of the intercepted arcs.

Angle of chord and tangent
The measure of an angle formed when a chord intersects a tangent line at the point of tangency is half the measure of the arc intercepted by the chord and the tangent line.

Angle of secant and tangent
If a secant and tangent lines intersect outside a circle, the measure of the angle formed is half the difference of the measure of the larger intercepted arc and the smaller intercepted arc.

Angle of two tangents
If two tangent lines intersect outside a circle, the measure of the angle formed is half the difference of the measure of the larger intercepted arc and the smaller intercepted arc.

